



TWO MEALS A DAY

THE SIMPLE, SUSTAINABLE STRATEGY TO

**LOSE FAT,
REVERSE AGING,
& BREAK FREE FROM
DIET FRUSTRATION
FOREVER**



MARK SISSON

New York Times Bestselling Author | WITH BRAD KEARNS

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Introduction

I used to run almost entirely on carbs, chowing down three or four robust grain-based meals every day. I kept a reliable supply of packaged processed energy bars and other snacks in my home, car, office, and travel bag. As soon as I finished breakfast, I would start thinking about lunch. A couple of hours after my typically huge dinners, I would wander into the kitchen to nibble on something while relaxing in the evening. Because I burned so much energy with extreme endurance workouts, I never got fat—unlike sedentary people with similar eating patterns. Yet even with my impressive physique and no obvious adverse health consequences, my hunger, appetite, and meal planning ran my life. I did not realize the culprits at the time, but gluten and other dietary toxins were destroying my intestinal tract to such an extent that I had to structure my running routes around bathroom locations.

Nearly two decades ago, I switched to an ancestral-style diet free from processed sugar, grains, and industrial seed oils and experienced a health awakening beyond my wildest dreams. In addition to healing my lifelong digestive dysfunction, my new eating habits meant that I was no longer dependent on food to stabilize my energy, mood, and cognitive functioning. By ditching high-carbohydrate, high-insulin-stimulating foods, I was able to access and burn stored body fat around the clock. I was almost never hungry and required far fewer calories to attain total satisfaction at every meal. It felt like an incredible gift to escape from the prison of carb dependency and transition into a new existence, one in line with our human genetic expectations for health that were honed through 2.5 million years of evolution. Contrary to modern marketing hype and the flawed science that's likely been programmed into your brain, we humans can do just fine

without stuffing our faces morning, noon, and night and snacking incessantly to maintain energy between these round-the-clock feedings.

Essentially, my life's work has boiled down to this: helping others escape lifelong carbohydrate dependency driven by the Standard American Diet (SAD) and become what I affectionately call a *fat-burning beast*. This is the default human metabolic state that has been hardwired into our genes but has been egregiously compromised by the overconsumption of high-carbohydrate processed foods and toxic industrial seed oils (e.g., canola, sesame, soybean, and sunflower oils), which destroy our natural ability to burn stored energy. While it may take some sustained and devoted effort to reprogram your genes away from reliance on carbs, depending on the severity of your metabolic damage, the beast within you is ready to emerge when you choose the most nutritious and satiating foods, reduce meal frequency, and unlock the amazing healing powers of fasting.

Welcome to *Two Meals a Day*, a simple, sustainable, highly effective strategy to help you lose excess body fat; increase energy and focus; minimize your risk of diabetes, cancer, heart disease, and cognitive decline; and enjoy your maximum *healthspan*—a long, healthy, happy, high-energy life lived all the way to the end. *Two Meals a Day* offers a refreshing solution to the incredible frustration of carrying excess body fat. It transcends almost all the controversy and confusion over what constitutes the most healthful diet and finally does away with the pain, suffering, and sacrifice we've come to associate with dieting. I'm pretty fired up as we begin this journey together, because misguided health gurus, manipulative corporate marketing techniques, and so-called experts in government, in academia, and on the all-powerful internet are perpetuating the ridiculousness and the suffering of dieting with horrible advice and a fundamental misunderstanding and misrepresentation of human genetics and evolutionary biology. In case you haven't heard, here's the issue at hand: *We eat too much of the wrong foods too often. It's making us fat, tired,*

sick, and it's slowly but surely killing us.

Recent science has made the surprising discovery that it's not laziness or lack of willpower that has made modern humans unwell but rather the *hormone dysregulation* caused by a daily pattern of high-carbohydrate breakfasts, lunches, and dinners along with frequent snacking and ingestion of toxic industrial oils. This pattern of eating has violently disrupted our magnificent evolutionary ability to burn stored body fat around the clock as a steady and reliable source of energy. Instead, we have become dependent on regular doses of ingested calories to fuel our busy days. The common phenomenon of feeling “hangry” after skipping even a single meal—a ridiculous notion from an evolutionary perspective—blatantly exposes this hormone dysregulation.

Even many enlightened folks who know to stay away from processed sugars, sweetened beverages, refined grain-based foods (wheat, corn, rice, pasta, cereal), and industrial seed oils remain unhealthy and overweight because they eat and snack too much. Consider the ketogenic diet, which has risen to popularity in recent years. While many who followed a well-formulated ketogenic diet have shed fat and improved their health, the plan has also been widely misappropriated as an opportunity to stuff one's face with “keto-approved” high-fat meals and snacks in a misguided attempt to trigger ketone production in the liver. We've forgotten keto's roots as an evolution-honed survival mechanism. Ketone production occurs in the liver to supply a steady source of fuel for the brain in times of starvation or in the absence of dietary carbohydrates. In reality, you access the main benefits of keto through fasting, not feasting on high-fat foods.

It's time to reframe our flawed and dated belief systems and behavior patterns relating to food and meals. It's as simple as this: if you want optimum health, body composition, and longevity, you have to do two things:

1. Ditch processed foods in favor of wholesome foods
2. Eat less frequently

Two Meals a Day will help you develop one of the most important health attributes imaginable: *metabolic flexibility*. This genetically preprogrammed superpower is the ability to burn a variety of fuel sources, especially stored fat, based on your body's needs at any given time. Paradoxically, you were born with robust metabolic flexibility, but it began to atrophy as soon as you were fed all manner of crunchy and mushy carbs as an infant. The good news is that you can quickly reclaim your genetic fat-burning abilities. Metabolic flexibility allows you to feel great all day long, with stable mood, energy, cognitive functioning, and appetite, *whether or not you eat regular meals*. I believe that reigniting your metabolic flexibility is the holy grail of all health pursuits. With it, you can naturally derive energy from a range of sources: the fat on your plate of food or the fat on your butt, belly, or thighs; the carbohydrates in your meal, the glucose in your bloodstream, or the glycogen in your muscles; and even from ketones, the superfuel that your liver makes when you're fasting or restricting dietary carbs. The best part is that your body doesn't care where those calories came from, because your source of calories to burn will move seamlessly from one substrate (fuel source) to another depending on your immediate energy needs.

Metabolic flexibility allows you to cruise through life not having to think about how many calories or grams of carbs you "earned" because you ran on the treadmill or how much protein you'll need to consume after your weight-lifting session to avoid muscle breakdown. Most important, metabolic flexibility will free you from the tyranny of hunger, appetite, and cravings, because your body will always be primed to get energy from body fat, glycogen (the stored form of carbohydrate in the liver and muscle tissue), and ready-made ketones. Ultimately, you'll stop living at the edge of "how much food can I stuff down my face and not get fat" and get to the point where you might want to explore how *little* food you can eat and still remain completely satisfied and energized every single day for the rest of your life.

If metabolic flexibility describes the ability to skip meals and burn fat, *metabolic efficiency* describes the result: the life-changing, life-extending ability to thrive on fewer calories.

I'm not suggesting you must starve yourself or live as an ascetic to be healthy. What I'm talking about is enjoying your life to the fullest and eating delicious and highly satisfying foods to your heart's content. I enjoy lavish meals as much as anyone, and I never deprive myself when I'm hungry. That said, I also believe that one fabulous plate of fresh sashimi or a grass-fed rib eye cooked to perfection can be more pleasurable (and ultimately more healthful) than all-you-can-eat fish and steak! I'm also not inclined to tarnish the lingering taste sensations and satisfaction of a gourmet meal by stuffing some sugar down at the end, just because dessert is a cultural mainstay.

Unfortunately, when you are locked into a carbohydrate-dependent eating pattern, you are compelled to eat an excessive amount of calories every day because your fat-burning factory is shut down and your appetite and satiety hormones are out of whack. The classic potato-chip ad campaigns of decades past are excellent examples. "Betcha can't eat just one" was the slogan for Lay's potato chips, and "Once you pop you can't stop" encouraged eating Pringles. These ads revealed the disturbing reality that nutrient-deficient foods trick your brain into eating more in a futile attempt to obtain nourishment.

The idea here is that when you can burn body fat and make ketones at any time, and your appetite and satiety hormones are optimized, you simply don't need as much food—even in pursuit of peak performance and maximum pleasure. I like to envision my metabolism as a carefully constructed closed-loop system that can operate perfectly well for days, if need be, without any visits to the fuel pump (i.e., without ingesting calories). A closed-loop metabolism ensures that you don't lose energy, muscle mass, strength, or your happy disposition. This honors our evolutionary imperative to not waste energy. In an effort to achieve widespread adoption of this

empowering new strategy, I hereby declare a revision to global dietary lexicon: the popular term *intermittent fasting* is changed to the more apropos term (and mindset!) *intermittent eating!*

It's All About Insulin

Insulin is the key metabolic hormone that presides over all manner of cellular and homeostatic functions in the body. Insulin's primary role is to transport nutrients such as glucose, amino acids, and fatty acids from the bloodstream into cells. Today, we overburden our extremely delicate hormonal mechanisms in the pancreas (where insulin is manufactured) and the liver (which regulates glucose levels in the bloodstream) by consuming too many carbohydrates. Most dietary carbohydrates are converted into glucose upon ingestion. A small amount of this energy is burned right away, while the excess is quickly removed from the bloodstream and rerouted by insulin. Insulin transports the extra glucose to the muscle cells and the liver, where it is either converted into glycogen (the stored form of glucose) or triglycerides (the stored form of fat). Excess blood glucose is highly toxic—this is why a diabetic might pass out without a timely insulin injection. If you are not burning up lots of glycogen with an ambitious workout regimen, your extra calories will end up in fat-storage depots throughout your body.

When modern humans slam down high-carbohydrate breakfasts, lunches, and dinners, suck down sweetened beverages, and indulge in sugary snacks and treats, insulin must be continually pumped out to deal with the glucose burden created by these foods. Because insulin is a storage hormone, SAD eating patterns lock us into fat-storage mode around the clock. By contrast, low insulin levels allow the counterregulatory hormone glucagon to pull nutrients from storage into the bloodstream, where they're burned for energy. Three squares a day is a wholly modern construct and completely foreign to our evolutionary experience as rough-

and-tumble hunter-gatherers who evolved to be fat burners in a feast-or-famine pattern.

The *Two Meals a Day* approach gets you back into the feast-or-famine rhythm that aligns with your genetic predisposition for maintaining health. This dietary modification can save your life, because when you overproduce insulin for too long—a condition known as *hyperinsulinemia*—you eventually develop the disease state known as *insulin resistance*. This happens over time as your cells become desensitized to the signals given off by insulin (because of chronic overproduction) and don't accept the package of nutrients insulin delivers to their doorstep. The NO VACANCY sign at the cell motel results in too much glucose remaining in the bloodstream. This is the start of big trouble. The liver cannot detect your blood glucose levels, instead relying on insulin signaling to decide when to release more glucose into the bloodstream. Sensing elevated blood insulin levels, the liver is deceived into releasing more glucose in a futile attempt to get you back to homeostasis. Instead, too much insulin *and* too much glucose in the bloodstream send you spiraling into decades-long disease patterns. Many medical experts believe insulin resistance is the number one health crisis facing modern-day humans across the globe.

Insulin resistance causes oxidative damage (a.k.a. free-radical damage), system-wide chronic inflammation, and *glycation*—the binding of excess glucose molecules to important structural proteins in organs throughout the body. This causes widespread dysfunction and disease patterns that affect important organs and systems. It's sobering to realize that just as the sugar in cotton candy sticks to your fingers, the sticky composition of glucose molecules tends to adhere to the delicate endothelial cell lining on the walls of your arteries and gets you started on the road to heart disease. It also sticks in the retinal microvascular endothelium to mess with your eyesight and attaches to collagen and elastin to wrinkle your skin.

Oxidation, inflammation, and glycation are the driving

factors in heart disease, cancer, and accelerated aging. The direct association between atherosclerosis and a high-carbohydrate, high-insulin-producing diet is finally becoming a matter of consensus. This science replaces the flawed and dated lipid hypothesis of heart disease, which erroneously blames dietary cholesterol and saturated fat for causing heart disease. As you will learn in detail shortly, reducing excess body fat and avoiding chronic disease patterns can be achieved through minimizing insulin production rather than by restricting caloric intake and increasing caloric expenditure.

Honoring Our Ancestors

I've covered food choices extensively in other books such as *The Primal Blueprint* and *The Keto Reset Diet*. In this book, I'm going to suggest that you draw on your favorites from the surprisingly simple list of "ancestral" foods that fueled human evolution. Examining human health in an evolutionary context is without a doubt the most profound and exacting scientific study of all time. The legendary geneticist and evolutionary biologist Theodosius Dobzhansky reinforced this point in a highly acclaimed 1973 essay titled "Nothing in Biology Makes Sense Except in the Light of Evolution."

Following is a list of the ancestral foods that have made us human for the past two million years: meat, fish, fowl, eggs, vegetables, fruits, nuts, and seeds. I left off insects so you'll continue reading, but of course they are technically included in the evolutionary list and are still enjoyed today in many cuisines and indigenous populations. I also make concessions to allow for the inclusion of healthful modern foods such as organic high-fat dairy products and high-cacao-percentage dark chocolate. Noticeably absent are today's heavily processed, nutrient-deficient sugars, grains, and industrial seed oils. Bestselling author Michael Pollan memorably and accurately called today's packaged, processed fare "edible foodlike substances." Sadly, these substances make up a huge percentage of our total caloric intake today, in the process

crowding out the opportunity to enjoy truly nutritious and satisfying foods. Dr. Loren Cordain, author of *The Paleo Diet* and one of the forefathers of the Paleo diet, cites a statistic: 71 percent of the calories in the grain-based Standard American Diet come from foods that were wholly absent during Paleolithic times.

You can enjoy a *Two Meals a Day* lifestyle whether you follow a vegan, vegetarian, Paleo, keto, carnivore, or any other eating strategy. It is important to remember, however, that skipping meals doesn't give you license to be indiscriminate when it's time to eat. You absolutely must ditch toxic processed foods and emphasize wholesome, nutrient-dense, ancestral-style foods in order to succeed. You cannot achieve metabolic flexibility while engaging in the wildly excessive intake of processed carbs and industrial oils in the SAD. That said, I think it's time to back off a bit from some of the dogma and intense scrutiny over food choices that's so prevalent these days in order to honor some big-picture objectives:

- Eat nutrient-dense foods of your personal preference—within ancestral guidelines, of course.
- Ditch the alarmingly destructive habit of snacking or eating frequent small meals. Snacking disrupts fat burning, increases insulin swings during the day, and increases overall daily caloric intake.
- Honor your hunger and satiety signals at all times.

Two Meals a Day is a great place to start, but as you build momentum on this journey, this guideline will likely become your *maximum* meal frequency rather than a minimum or an average. I actually thought for a moment about calling this book *The 1.5 Diet!* However, I want you to feel confident and comfortable that you “got this” when it comes to escaping the cultural norm of regimented meals and quickly being able to thrive on a haphazard and spontaneous eating pattern in which you rarely eat more than two full meals a day and occasionally less than that. You will do everything by choice, not because you are trying to adhere to a regimented program in pursuit of

a short-term goal. You will get to the point where eating fewer meals and not snacking feels comfortable, easy, and intuitively correct.

If you love to eat, and recoil at the thought of passing up a dining opportunity, please understand that I support your enjoyment of life and consumption of indulgent meals to your heart's content. Take it from me: I've gone from being a young guy who ate more food more often than anyone I knew to someone who eats only when I'm truly hungry and savors every bite that goes into my mouth. If a gourmet offering is not at hand, I simply won't eat. This sometimes happens when I'm traveling and away from good choices or am engrossed in work or play. I don't consciously strive to skip meals, but I often simply forget to eat. When you regulate your appetite and metabolic hormones with the strategies presented in this book, you'll discover a remarkable ability to naturally stabilize hunger, mood, energy, and satiety by eating fewer meals and consuming fewer calories. Metabolic efficiency drives longevity, while caloric excess is one of the most prominent drivers of accelerated aging and disease.

When you develop metabolic flexibility and metabolic efficiency, you will be able to go with the flow and not worry about adhering to regimented meal patterns to keep your energy level steady. You'll be free from the prison of food obsession. When you reclaim your human genetic birthright as a fat-burning beast, dropping excess body fat will be as easy as putting your hand on a dial and turning it to the desired setting. Lower your insulin production, and you lower your body fat—it's (almost) as simple as that! Metabolic flexibility allows you to take control of your life and your daily schedule and sustain peak cognitive and physical performance without needing to eat regular meals or snacks. While losing some inches and getting new clothes is certainly a rewarding manifestation of success, the wide-ranging sense of freedom and empowerment you experience with metabolic flexibility is perhaps the richest reward of all.

SISSON'S SIMPLE SUGGESTIONS

My *Two Meals a Day* lifestyle looks like this: with rare exceptions, I eat only during the hours between 1:00 p.m. and 7:00 p.m., which means that I fast for eighteen hours every day. I usually break my fast with my world-famous Sisson Bigass Salad (see [here](#)), then enjoy an evening out with my wife, Carrie, at one of the many fabulous restaurants near my home in Miami Beach. Many days, I'm too busy to prepare my centerpiece salad, so I might have what amounts to half a meal (either a smoothie, a few squares of dark chocolate smothered in nut butter, a healthful meat-and-veggie frozen meal, or a small bowl of leftover steak) before enjoying a celebratory dinner later. On other days, my midday masterpiece is so satisfying that I'm really not hungry in the evening for anything more than a small serving of the previous evening's fish or steak main course.

When I'm traveling, my time-tested strategy for beating jet lag is to fast on the day of the flight (this protects against the extra oxidative stress of passing through time zones in the confinement of a jet's cabin), arrive at my destination, and stay active until bedtime (I do not eat), then eat my first meal the following morning. This quickly calibrates my digestive and circadian rhythms to the new time zone. It's an advanced strategy, but it works incredibly well once your body adapts to extended fasting. This means that there are plenty of days on my calendar when I either don't eat or have only one proper meal, paired with my typical routine at home, in which I'll eat two or maybe one and a half meals.

We are going to proceed slowly and methodically on this journey together, because I want to make sure you don't struggle or feel intimidated by any part of the process. You don't have to stress about counting calories, painstakingly track macronutrient ratios, or traffic in the dogma and rigidity of many niche diets. Instead, you are going to focus on the big-picture essentials of metabolic flexibility, as follows:

- *Eliminate nutrient-deficient processed foods.* Sugars, sweetened beverages, grains (wheat, rice, corn, pasta, cereal), and refined industrial seed oils (canola, corn, cottonseed, peanut, safflower, soybean, sunflower) are insidious killers—they are directly associated with both immediate health disturbances (inflammatory and autoimmune reactions) and an elevated risk of diabetes, cancer, heart disease, and cognitive decline over the long run. In this book, you will bust out of the gate with a total elimination of these foods for twenty-one days in order to escape carbohydrate dependency and set yourself up for success with fasting, round-the-clock fat burning, and a long-term two-meals-a-day rhythm.
- *Emphasize nutrient-dense ancestral foods.* Humans evolved to thrive on an array of wholesome, colorful, nutrient-dense plant and animal foods. Once you ditch toxic modern foods, you can custom-design a dietary strategy guided by personal preference. Cut through the hype and controversy and choose to include whatever foods on the aforementioned ancestral list make you feel happy, energetic, and well nourished.
- *Embrace intermittent eating.* Our bodies operate most effectively in a fasted state. Fasting taps into our genetically hardwired regenerative and renewal pathways, boosting immune, cognitive, metabolic, and anti-inflammatory functions better than any superfood. However, you must first kick carb addiction before you can unlock the powers of fasting. If you can't burn fat

well, fasting will be too stressful to your carb-addicted body. You'll trigger the fight-or-flight response and end up in burnout mode instead of beast mode.

- *Reduce meal frequency and snacking.* Snacking may provide a deserved break from the intensity of the workday, but so does a walk around the block or a set of deep squats! Dr. Cate Shanahan, author of *The Fatburn Fix* and *Deep Nutrition*, reminds us that whenever you eat anything, even the “fat bombs” (homemade high-fat snack foods) favored by the keto community, burning stored body fat (along with the manufacturing of ketones in the liver) ceases abruptly while you process the ingested calories. A grazing pattern of eating throughout the day is directly associated with hyperinsulinemia, especially when you consider that most snacks are made with refined carbohydrates. Humans operate much better in a feast-or-famine pattern.
- *Form an empowering mindset.* It's no secret that many well-meaning health enthusiasts fail miserably and repeatedly with diet and body transformation goals because of the destructive influence of self-limiting beliefs and behavior patterns and the subconscious programming that sabotages good intentions. You will learn how to gracefully live in alignment with your stated goals and make empowering, conscious choices with full accountability.

An empowering mindset starts with feeling comfortable that you have all the knowledge you need to succeed. The next steps are to forgive yourself for past mistakes and failures with extreme compassion and identify flawed subconscious thoughts, beliefs, and behaviors, such as harboring a negative body image and snacking mindlessly. Then you will awaken your amazing potential for transformation and be able to

describe your goals and dreams with specificity.

Next, you'll create a winning environment and an action plan for success, including establishing some firm rules and guidelines that will help you stay strong against the constant temptation of indulgence and excess. Finally, you'll use repetition and endurance to create automatic habits that don't drain the fragile and easily depleted resource of willpower (you'll be guided through this sequence in [chapter 4](#) and during the 12-Day Turbocharge). After this hard internal work, you'll emerge with your natural hunger and satiety signals running the show—no more emotional or absentminded eating. You will no longer be tethered to the “three squares a day plus snacks” clock.

- *Get your lifestyle dialed in.* Your exercise, sleep, and stress management habits are going to make or break your dietary transformation efforts. If you are sedentary, sleep deficient, or harried and hyperconnected, you'll sabotage your dietary transformation efforts and drift back toward carbohydrate dependency. Hectic days can trigger carbohydrate cravings in association with fight-or-flight sympathetic nervous system dominance. Conversely, fat burning is associated with parasympathetic “rest and digest” dominance.

The lifestyle essentials include increasing all forms of general everyday movement (especially frequent breaks from prolonged periods of stillness), following a sensible exercise program (including brief, high-intensity efforts), implementing superb sleep habits (which helps lower stress hormones and regulate appetite and satiety hormones), and setting aside time every day to unwind and unplug from hyperconnectivity.

Replacing Flawed and Dated Conventional Stupidity

with Empowering New Truths

There is an enormous amount of conventional wisdom about diet and eating that is flawed, dated, and straight-up nonsense—what Australian peak-performance coach Andre Obradovic calls “conventional stupidity.” We are going to destroy flawed and dated conventional stupidity (FDCS) and replace it with empowering new truths (ENTs). These new truths may be contrary to what you’ve heard and believed your whole life, and they may be difficult to embrace right way. However, once you put these empowering new insights and possibilities into action, you will experience a transformation of both body and mindset.

FDCS: Fasting will slow down your metabolism, make you feel weak and sluggish, and cause you to overeat later.

ENT: Your body operates most efficiently in a fasted state. In general, the more time you can spend in a fasted state, the healthier you’ll be—provided that you possess metabolic flexibility.

FDCS: Breakfast is the most important meal of the day. It helps keep your metabolism and energy levels steady for hours.

ENT: An early morning smorgasbord is not necessarily the most important meal of the day, nor is it even necessary. Consuming a high-carbohydrate meal in the morning can put you on a blood sugar roller coaster for the rest of the day. The best time to “break-fast” is when you experience true sensations of hunger.

FDCS: Eating three square meals a day (or six small meals, as is commonly recommended for serious athletes) is the key to maintaining steady energy, mood, and focus all day and will boost your metabolism.

ENT: Eating frequently increases total caloric intake and promotes excess body fat and disease patterns associated with hyperinsulinemia, especially type 2

diabetes, heart disease, and many cancers. Departing from regimented breakfasts, lunches, and dinners to eat in a haphazard, intuitive manner is actually healthful! It will develop metabolic flexibility and efficiency and likely trigger breakthroughs in fat loss, boost cognitive and physical performance, and minimize disease risk factors.

FDCS: Whole grains are the staff of life and should be the centerpiece of your diet (as they are on the USDA's Food Guide Pyramid and MyPlate imagery).

ENT: There is no requirement for dietary carbohydrates in human biology. Humans can survive and thrive on extremely low carbohydrate intake in comparison to today's egregious excess. Grains have minimal nutritional value and contain plant toxins such as gluten and many others that can be problematic for many people. Moreover, the "healthful fiber" argument for grains has been scientifically invalidated. A high carbohydrate, grain-based diet can easily result in excess fiber intake, which is counterproductive to weight loss and health.

FDCS: Carbohydrates are essential fuel for working muscles. Athletes must fuel up before workouts (carbo-load) and reload on carbs immediately after workouts. Otherwise, they will break down hard-earned muscle mass.

ENT: Muscles can efficiently burn fatty acids as well as carbs for fuel. Even high-calorie-burning athletes can transition to fat-adapted training and racing and thrive on minimal carbohydrate intake. Fat and ketones burn more cleanly than glucose in the brain and body, promoting improved performance, less inflammation, and faster recovery from workouts.

FDCS: Dietary fat and cholesterol are the driving causes of obesity, cancer, and heart disease.

ENT: The true cause of today's epidemic diet-related

disease patterns is excess consumption of refined carbohydrates and industrial seed oils, which drives hyperinsulinemia and triggers oxidation and inflammation, which are the root causes of virtually all disease. Natural, nutritious sources of fat—including high-cholesterol foods—can help support healthy hormone and metabolic functioning.

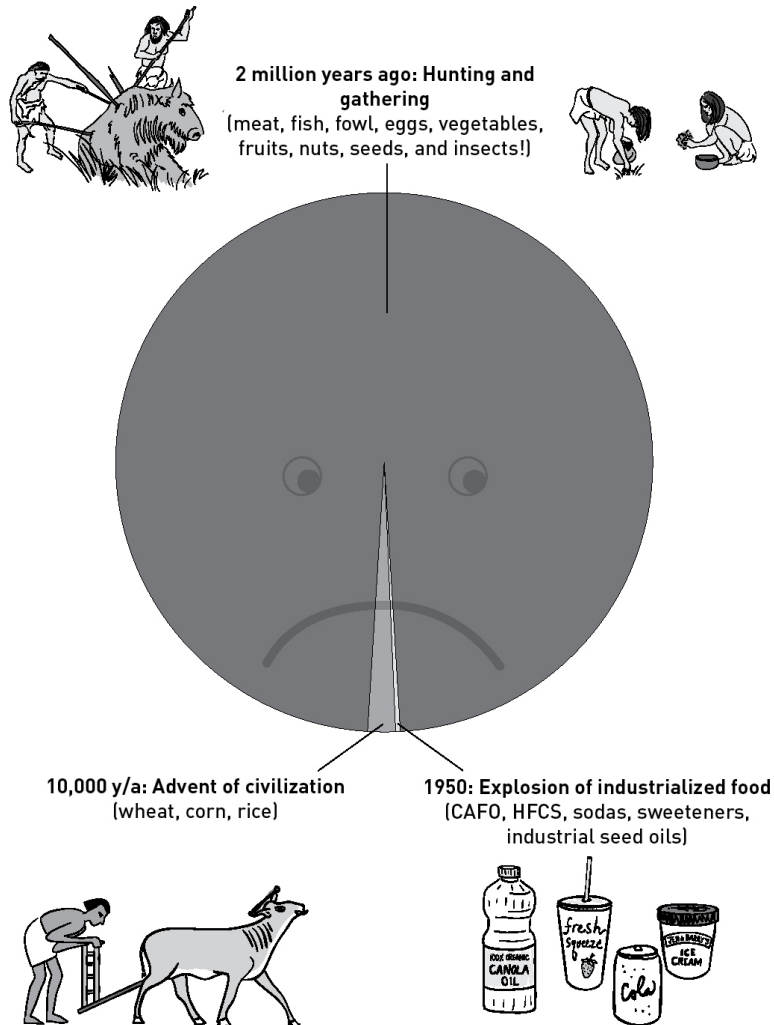
How Did We Get into This Mess?

Let's take a quick stroll through the timeline of human evolution to get some perspective on the incredible mess we have landed in today: carbohydrate-addicted humans suffering from a global epidemic of obesity, cancer, heart disease, and cognitive decline. These conditions are being increasingly tied to a grain-based, high-insulin-producing diet. *Homo erectus* and his descendants existed for more than two million years as hunter-gatherers. Our ancestors prevailed through the brutal life-or-death selection pressures of starvation and predator danger by gaining access to nutrient-dense animal foods, especially omega-3 fatty acids from marine life and land animals. Our success as hunter-gatherers enabled us to branch off from our plant-chomping ape cousins, grow incredibly large and complex brains, and rise to the top of the food chain.

The advent of agriculture and the ensuing dawn of civilized life across the globe, starting ten thousand years ago, was in some ways the most health-destructive event in the history of humanity. Granted, cultivating grains and livestock allowed us to live close together in permanent settlements, specialize labor, store cheap calories for reliable long-term access, produce more offspring, and accelerate the technological progress and affluence that continues today. Sadly, human health took a huge hit when we transitioned from hunter-gatherers, eating the planet's most bountiful foods, to carbohydrate addicts. The brain and body size of humans declined significantly with the dawn of civilization, and conditions such as malnutrition and diet-related diseases arose

for the first time. The industrialization of food over the past century—especially the increasing consumption of refined sugar, grains, and seed oils in processed and fast foods—has resulted in the fattest, least fit, most diseased population in the history of humanity.

Human Evolution Dietary Timeline



Buying whole-grain crackers, nonfat Greek yogurt, or a freshly squeezed vegetable-and-fruit smoothie may seem like healthful and virtuous choices, but even the most health-conscious eaters can suffer from carbohydrate addiction and metabolic disease patterns by eating too frequently and drifting too far from the *Homo sapiens* evolutionary diet that was (compared to the SAD) extremely low in carbohydrates, high in natural, nutritious fats, and entirely absent of toxic processed foods. The *Two Meals a Day* journey starts with

ditching nutrient-deficient processed foods and replacing them with your favorite wholesome, nutrient-dense plant and animal foods. This switch will lower insulin production and give you a fighting chance at attaining metabolic flexibility. From there, you will focus on reducing meal frequency and eliminating snacking, which will help you unlock the amazing health benefits of fasting.

Alas, making good choices for your two daily meals isn't enough: sufficient attention must also be devoted to the lifestyle and mindset factors that can make or break your success. Overly strenuous exercise routines, insufficient sleep, self-limiting beliefs and behavior patterns, and too much general stress are all associated with carbohydrate cravings, overeating, and excess insulin production.

The Magic of Hormone Optimization

It's time to reject the deeply flawed and misinterpreted "calories in, calories out" mentality of portion control and exhaustive workouts that we've been socialized to believe is the singular path to staying lean and healthy. I want you to take comfort right now in the fact that you will never have to struggle and suffer again in the name of fat loss or dietary transformation, because you are finally adopting the correct approach—one aligned with your human genetic requirements for health. You can eat when you're hungry, enjoy incredibly delicious and satiating meals (just breeze through the titles in the recipe section of this book and you'll see what I mean), and experience the bliss of *hormone optimization*—perhaps for the first time since you were a kid with boundless energy. No more counting calories or obsessing about macronutrient ratios ever again. You will embrace a new ethos of intermittent eating and get into a rhythm of intuitive eating decisions instead of thinking of food as the fuel necessary to survive a busy day without passing out.

If you possess a decent level of health, body composition, and metabolic flexibility right now—evidenced by healthful

body-fat levels (males under 18 percent; females under 25 percent) or being able to skip a meal and still function smoothly for a few more hours before eating again—you can experience dramatic results in as little as three weeks. Many intermittent-eating practitioners can lose ten pounds or more in twenty-one days. This total is not just body fat but also a reduction in water retention and inflammation throughout the body—a reduction caused by eliminating toxic foods. If you are starting this journey with a history of yo-yo dieting or disordered eating, or if you carry excess body fat or have learned from blood tests that you are at risk for certain diseases, you may require a more gradual approach to becoming metabolically flexible and radically altering your body composition. However, even if you are metabolically damaged, you can still make steady progress each day without having to suffer or deprive yourself. Taking comfortable baby steps will quickly boost your confidence as well as your trust and enthusiasm for the process. Then, even if you experience the occasional slipup, such as a weekend or a vacation during which you engage in undisciplined eating, you can right the ship quickly instead of getting discouraged and sinking into self-destructive behavior patterns.

Congratulations on your interest in and enthusiasm for transforming your health. You've already taken the necessary first step toward lasting success. In the coming chapters, we will focus on an assortment of objectives that you will leverage to build the body of your dreams and enjoy a long, healthy, happy, awesome life.

Journaling Your Journey

Journaling will be a key factor in the success of your *Two Meals a Day* experience. You'll go on three distinct journal journeys.

- **Chapter-End Journal Exercises:** These will help strengthen your understanding of the concepts and your commitment to a new way of eating and way of life.

Journaling will be especially important in [chapter 4](#), which covers mindset and behavior-change concepts.

- **Gratitude Journal:** Beginning with [chapter 4](#), you'll be asked to start a separate gratitude journal, or make distinct entries into your *Two Meals a Day* journal, as a centerpiece of living in a state of gratitude.
- **12-Day Turbocharge Journal:** Every day, you'll make a journal entry relating to each of your five daily assignments (details shortly).

The particulars of your journal are up to you. No fancy structure is necessary; just grab a blank spiral-bound notebook and write free-form observations as directed in the chapters and the 12-Day Turbocharge challenges. You may be journaling about the specifics of your kitchen and pantry purge, your efforts to improve your sleep habits and environment, or the escalation of your fasting aptitude. You can record what you eat each day to heighten awareness as you transform bad habits into good ones. You can devote special attention to areas where you struggle and provide an honest accounting of your thoughts and emotions along the way.

Journaling will help you stay accountable and provide valuable insights that you can refer to whenever you feel the need to refocus or get a motivational boost. If you have transitioned most of the communication elements in your life (e.g., calendar, to-do lists) to the digital realm, that's great. However, research from Indiana University suggests that a handwritten journal can be more effective for lifestyle transformation goals. Writing by hand requires more cognitive power, creativity, and psychic investment than typing your thoughts or reacting to a structured template such as a questionnaire. MRI imagery shows that unlike typing, writing by hand helps synchronize the analytical left brain and creative right brain, stimulating brain synapses in a manner that is similar to meditation. Writing's sequential hand movements help hone your skills for linguistic processing and working memory. Writing by hand also forces you to slow down and

perhaps better appreciate the words and ideas you are creating—a different experience from hammering away on a keyboard. Neuroscientists suggest that trading in the keyboard for the pen may also improve creative expression.

Keeping a journal gives you a valuable resource to consult whenever you need a motivational boost or a course correction when you fall off track. Another way to boost the impact of your journaling is to select meaningful excerpts or summary concepts and turn them into acronyms or pithy statements that might make sense only to you. Write these on a sticky note or index card and post them in a prominent location for daily inspiration. For example, when I coached Brad while he was on the professional triathlon circuit, I would end every phone call or personal meeting with a single phrase: “Remember, patience and trust.” This inspired him to write the phrase on an index card and display it at home. The comment summarized our extensive consultations relating to training strategy and season planning as well as the essential need to stay focused in the face of potential distractions or diminished confidence caused by setbacks on the racecourse.

Your journaling will align with your personal style: it’s okay to be as long-winded or as succinct as you wish, and you can keep your writing completely private if you prefer. However, one thing’s for sure with journaling: you gotta do it! Writing a few minutes every day is more effective than dusting off your journal once a week for a long writing session. That said, even committing to weekend entries is better than nothing. Unwinding a lifetime of subconscious programming and destroying self-limiting beliefs and behavior patterns is serious business; simply jotting down passing thoughts or puffy positive affirmations is not going to cut it.

When you can build a strong journaling habit, you can enjoy a host of long-term psychological and physical benefits, including better emotional regulation, self-awareness, and self-confidence. Journaling has also been shown to improve physical health; lower inflammation, blood pressure, and stress hormone levels; and improve insulin sensitivity, liver function,

lung function, and immune cell activity. Gratitude journaling in particular has been shown to prompt spikes of the feel-good hormones dopamine, serotonin, and oxytocin. These hormones travel through neural pathways in the brain and program you to be a happier person. Keep an eye out for the exercises at the end of every chapter and get ready to fill some pages!

The 12-Day Turbocharge

You'll find this awesome twelve-day immersive experience after the seven chapters of the book. Armed with all the knowledge from your reading, you will pick the appropriate time to embark upon an intense and challenging series of daily assignments in each of five areas: food, fasting, fitness, mindset, and lifestyle. Many of the daily challenges are written exercises or actions accompanied by written exercises. While staying in turbocharge mode would be unsustainable over the long term for most of us, the idea is to expose yourself to a number of winning strategies and behaviors from which you can pick and choose and incorporate those into daily life over the long term.

CHAPTER 1

Clean Up Your Act

The first step to transforming your body into a lean, energetic, fat-burning beast is to eliminate nutrient-deficient, high-insulin-stimulating foods from your diet. You must get insulin under control, or all bets are off when it comes to building metabolic flexibility and developing your ability to fast. Our bodies are simply not designed to process the massive amount of carbohydrates in today's grain-based diet. Remember, humans evolved by consuming extremely minimal carbohydrates in the form of wild seasonal fruits, starchy tubers, and high-fiber vegetables. We evolved to burn mostly fat, exist in a state of ketosis routinely, and to live a low-stress lifestyle that doesn't require tons of glucose to sustain. Our *Homo sapiens* default genetic setting as fat burners is illustrated by the fact that you only have around a teaspoon (five grams) of glucose circulating through your entire blood volume of around five quarts (4.7 liters). This ratio is tightly regulated at all times by your liver—the control tower for the processing and distribution of nutrients into the bloodstream.

When you indulge in oatmeal breakfasts, Starbucks Frappuccinos, PowerBars, and pasta dinners, you abuse your extremely delicate hormonal mechanisms and hitch a ride on the familiar blood sugar roller coaster that makes you tired, cranky, and fat. Even if you choose healthful carbohydrates and stay away from junk, you can still develop a hyperinsulinemia problem if you eat and snack too frequently,

don't move around or work out enough, or don't get adequate sleep. Remember, even when you choose slower-burning whole grains, legumes (beans, soy products, lentils), and starchy tubers (sweet potatoes, squash, and so on), it all eventually gets converted into glucose. You still need to produce a significant amount of insulin to process these carbohydrate calories over time. Add in today's liberal year-round consumption of fruit (especially the high-glycemic, low-antioxidant tropical fruits); the hidden sources of sugar in restaurant meals, condiments, sauces, and processed meals and snacks; and the insidious liquid carbohydrate calories in myriad sweetened beverages that are calorically dense but fail to satiate, and you have a huge disconnect from our genetic predisposition for health.

Metabolic syndrome is a cluster of interrelated disease conditions driven by poor diet and physical inactivity. Medical and nutrition experts agree that it is today's number one global health epidemic (yes, even more than COVID-19, because metabolic disease dramatically increases one's susceptibility to the virus and the severity of its symptoms and mortality risk) and that it's driven predominantly by excess insulin production. The Cleveland Clinic states, "The exact cause of metabolic syndrome is not known... [but] many features... are associated with 'insulin resistance.'" The five markers of metabolic syndrome are: high blood pressure, high blood glucose, excess belly fat, high triglycerides, and low HDL cholesterol. Amazingly, these are so closely tied to dietary choices that four of the five risk factors can be corrected (in most individuals) in only twenty-one days by ditching the unhealthy foods described in this chapter. The fifth, slimming your waistline, might take longer depending on your starting point. However, reducing your total insulin production will mobilize stored body fat and help you progress quickly to a healthier body mass index.

If you can lower your overall dietary insulin production, you will lower disease risk, lose excess body fat, boost immune functioning, feel better, think better, and live better.

It's difficult to dispute the idea that producing the ideal minimal amount of insulin (to accomplish the job of delivering calories and nutrients to your cells) could be the single most important lifestyle practice in support of longevity. It is known in science that across all species, the individuals who produce the least amount of insulin over a lifetime live the longest. Unfortunately, under FDCS (flawed and dated conventional stupidity, remember?), prediabetic and type 2 diabetic folks are treated with prescription medication (more insulin!) and flimsy directives to eat fewer calories and exercise more. Such efforts almost always fail in the long term because they don't address the root cause: metabolic dysfunction and hormone dysregulation caused by hyperinsulinemia. Achieve metabolic flexibility, and you steer clear of this mess!

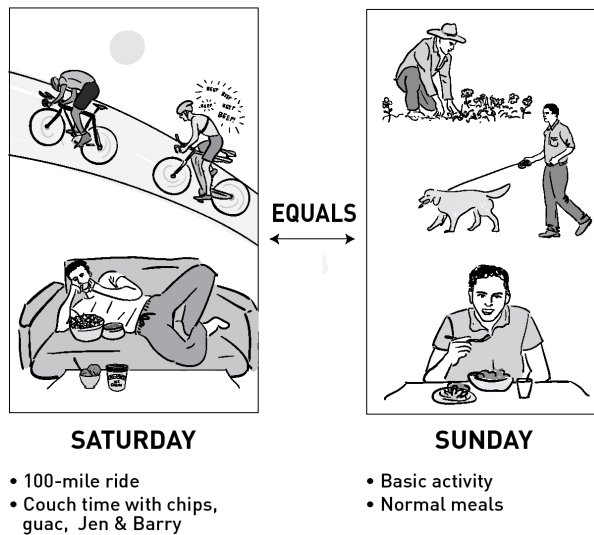
Calorie Confusion, Constraints, and Compensations

Dr. Jason Fung, a Canadian nephrologist and weight loss expert who wrote *The Obesity Code*, *The Diabetes Code*, and several books about fasting, states, "The calories in, calories out theory of obesity is one of the great failures in the history of medicine." Dr. Fung explains that a calorie-restrictive diet alone will not reduce body fat over the long term because genetically programmed survival mechanisms against starvation will start kicking in to lower your metabolic rate and drift you back toward your annoying body-composition "set point." This is the idea that whatever you do to eat fewer calories, burn more calories, or even eat more calories and burn fewer of them, your genetically influenced homeostatic drives conspire to eventually return you to a specific set point. The familial genetic attributes Mom and Dad gave you have a strong influence on your set point; Dr. Fung cites research concluding that obesity risk is 70 percent genetic.

Counterintuitive as it may seem, the calories you burn during strenuous, depleting workouts make little or no contribution to your fat-reduction goals. Countless studies reveal that exercise calories burned are offset by a

corresponding increase in appetite as well as a reduction in routine caloric expenditure during the day. This shocking and counterintuitive idea is scientifically validated by what is known as the *compensation theory*. Compensations happen both consciously—rewarding yourself for that 6:00 a.m. spin class with an evening on the couch with Ben & Jerry—and subconsciously: we tend to be a bit more lazy and sluggish, eat bigger portions, and snack more frequently in the aftermath of impressive workouts.

Amazingly, humans seem to have assorted homeostatic compensatory mechanisms that effectively place a ceiling on our daily total energy expenditure (TEE). If you burn a bunch of calories at a workout, your body finds assorted ways to burn fewer calories at rest over the course of the day. This is known as the *constrained model of energy expenditure* and counters the common misconception that a devoted workout routine will speed up your metabolism at rest. These concepts have risen to prominence after a landmark 2012 study of the Hadza tribe, modern-day hunter-gatherers living in Tanzania. The study, led by American anthropologist Herman Pontzer, PhD, revealed that despite their extremely active lifestyles, which include walking between four and seven miles each day, the Hadza were found to burn around the same number of calories daily as an average urban office worker! I've actually done some caloric intake and expenditure calculations that show that a Saturday featuring a hundred-mile bike ride in the morning, followed by hours on the couch watching TV and slamming chips, guacamole, and recovery smoothies, is in energy balance with a Sunday of taking the dog for a walk, doing some yard work, and eating normal meal portions.



The revelation here is that the way we have fought the battle of the bulge for decades has been an ill-conceived, dismal failure. It has led to the completely flawed and psychologically harmful misconception that excess body fat is indicative of laziness and lack of discipline: eating too much and exercising too little. Dr. Fung calls this “the calorie deception.” He explains that hormones influence hunger and satiety beneath your conscious awareness so that overeating, excess body fat, and diet-related disease conditions are almost entirely a result of hormone dysfunction caused by hyperinsulinemia.

I’ve long believed that body composition is 80 percent dependent on diet and only 20 percent on exercise and other lifestyle factors. Dr. Fung goes so far as to say that controlling insulin is *95 percent* of the solution here! Or, as my friend Eddy says, “Abs are made in the kitchen.” Beyond your genetic influences, years and decades of hyperinsulinemia and the resultant hormone dysfunction will cause your set point to drift ever higher. This is where we get the widely cited statistic that American adults gain an average of a pound a year from ages twenty-five through fifty-five—by adding 1.5 pounds of fat and losing .5 pounds of muscle. This results in huge increases in disease risk and a 40 percent obesity rate for American adults today.

Even if you have lucky genetics and don’t carry a lot of visible excess body fat, it’s possible you are still what Dr. Phil

Maffetone calls “overfat”—possessing extra fat that impairs health and fitness, especially visceral fat. Visceral fat is a distinct type of fat that accumulates around the abdominal organs as well as the heart. Visceral fat is far more destructive to health than the subcutaneous fat that typically accumulates in the hips, thighs, and rear end. This is because visceral fat releases inflammatory chemicals known as cytokines into the bloodstream, hindering fat burning, and suppressing key antiaging hormones such as testosterone and human growth hormone. The inflammatory, hormone-altering properties of visceral fat beget the accumulation of more visceral fat. In his book *The Overfat Pandemic*, Dr. Maffetone estimates that 76 percent of the world’s population can be classified as overfat. As one of the world’s leading experts on endurance training and a coach to many world champions in distance running and the Ironman triathlon, he also asserts that you cannot exercise your way out of an overfat condition.

So if eating less and exercising more doesn’t work, what does? The research is clear: the best way to improve your body composition is to minimize your overall dietary insulin production for the rest of your life—through fasting and, as Dr. Maffetone suggests, “replacing junk food with real food.” When you ditch processed foods and reduce meal frequency, you lower insulin and activate your long-dormant fat-burning genes. You will be able to maintain stable mood, appetite, and cognitive focus all day long and quickly and efficiently reduce excess body fat. Your daily caloric requirements for peak physical and cognitive functioning actually decrease. It’s like upgrading to a car that gets better gas mileage. You will be able to absolutely thrive on a maximum of two meals a day and further explore the life-changing, life-extending benefits of routine fasting (i.e., going at least twelve hours without eating, between your last meal of the evening and your first meal the following day) and occasional prolonged fasting for focused fat reduction, disease prevention, and detoxification. With a sustained commitment to fasting and minimizing insulin production, you can gradually lower that stubborn metabolic set point and essentially rewind your biological

clock so that you'll look and feel better than you have in years.

Disease Risks from Hyperinsulinemia

Chronic (a.k.a. systemic) inflammation is believed to be the root cause of virtually all disease and dysfunction in the body, including cancer, heart disease, and cognitive decline. Chronic inflammation indicates that the body is struggling to defend itself against a chronic stressor, such as reactive foods (e.g., gluten, peanuts, and lactose), excess exercise with insufficient recovery time, chronically elevated glucose and insulin levels, and even seasonal allergies. Because our bodies are not designed to be on the defensive 24-7, chronic inflammation eventually leads to immune suppression, digestive disturbances, hormone dysfunction, assorted minor conditions ending with “itis” (arthritis, colitis, gastritis, sinusitis), and major modern killers such as cancer, heart disease, and diseases of cognitive decline. By contrast, acute inflammation is typically desirable in the short term. Acute inflammation helps your muscles run, jump, lift, and sprint. It facilitates the containment and healing of a routine bruise, twisted ankle, or bee sting.

People with lucky genes who don't store much fat may still have metabolic dysfunction, excess visceral fat, and elevated disease risk attributable to inflammatory lifestyle practices—especially the ingestion of toxic seed oils. You may have heard of the disturbingly common occurrence of super-fit individuals dropping dead from surprise heart attacks—a result of their bodies being chronically inflamed from carb dependency and excess exercise. Over years and decades, chronic inflammation causes scarring in the heart muscle and damage to its electrical circuitry. Blood tests for fasting glucose, fasting insulin, HbA1c (estimated average glucose over a long time period), triglycerides (the level of fat in the blood—elevations are driven by excess insulin), triglyceride-to-HDL ratio, and C-reactive protein (a key marker of systemic inflammation) can reveal hidden disease patterns in healthy-looking individuals

who eat poorly and exercise to extremes.

Excess caloric intake and chronically high insulin levels also send genetic signals to your cells to divide at an accelerated rate. This is common during distinct growth phases of life, when accelerated cell division is desired—pregnancy, infancy, and adolescence (e.g., as a teenager tries to pack on muscle for high school sports). Otherwise, accelerated cell division, marked by the overstimulation of growth factors such as insulin-like growth factor (IGF-1) and mammalian target of rapamycin (mTOR), leads to accelerated aging. Cells throughout the body divide a finite number of times and then they die. This can be seen in the gradual deterioration of cellular functioning in muscles, organs, the immune system, and the metabolic system as the body ages. For example, the gradual weakening of the immune response—known as *immunosenescence*—is the reason elderly people are more vulnerable to infection than young people.

Glycation is another disturbing consequence of a high-carb, high-insulin-producing diet. The body's longest-lasting cells are the most vulnerable, including those of the brain, cardiovascular system, eyes, kidneys, and skin. Diabetics who can't properly regulate blood glucose commonly suffer from vision and kidney problems. It's commonplace for the elderly to have wrinkled skin, dementia, and heart disease.

Brain cells are the most sensitive to oxidation, inflammation, and glycation, and today's disturbing increase in rates of cognitive disease is being increasingly tied to nutrient-deficient, high-insulin-producing diets. The senile plaques and neurofibrillary tangles of Alzheimer's disease are believed to be driven by glycation. Neuropathologist Dr. Suzanne De La Monte, of Brown University, explains that dementia is fundamentally a metabolic disease characterized by impaired glucose metabolism in the brain, "with molecular and biochemical features that correspond with diabetes." The connection is so strong that Dr. De La Monte's team has coined the widely appropriated term "type 3 diabetes" to describe conditions of cognitive decline.

TRAINING FOR THE CORONALYMPICS

We can use COVID-19 as a model for the adverse impact of certain lifestyle practices on both infectious disease and noninfectious chronic health problems such as diabetes, heart disease, and cancer because the immune system plays a role in each of these conditions. The weakening of immune functioning driven by diet-related and lifestyle-related disease, and the impact of lifestyle on immunity, have been largely disregarded by mainstream media in favor of fear-driven coverage of the pandemic. Dr. Ronesh Sinha is going to help us expand our perspective beyond the emphasis on wearing masks and keeping six feet apart. Dr. Sinha, an internal medicine specialist and author of *The South Asian Health Solution* and the popular health blog CulturalHealthSolutions.com, operates a unique wellness program serving large employee groups at some of the world's leading technology companies in California's Silicon Valley. He sees alarming levels of metabolic dysfunction, immune suppression, and serious disease in his patients, despite the fact that they are perhaps the most affluent workers in the world (in the global tech hub, salaries are 2.5 times the US median).

It's not uncommon for Dr. Sinha to treat heart attack victims in their thirties and for seemingly trim, healthy, high-performing folks to have disastrous blood markers and medicine cabinets full of prescriptions. Despite their advanced education, many of Dr. Sinha's patients are oblivious to healthful eating guidelines and get little or no exercise. He blames their health problems on a combination of poor diet and long hours at the computer as well as on the psychological harm caused by the extreme pressures inherent in the affluent, high-tech Silicon Valley scene. He argues

that even huge career rewards and incentives can have a direct adverse impact on physical health by fostering a consumerism and FOMO (fear of missing out) mindset, which elevates stress hormones and suppresses immune functioning.

Dr. Sinha's services include extended consultations with entire families, during which he urges them to clean up their diets, get moving, and get healthy. He puts an optimistic spin on the pandemic, which he nicknamed Covesity because of the strong connection between metabolic risk factors such as obesity and vulnerability to the coronavirus. He believes it can help skyrocket motivation for many couch potatoes! Dr. Sinha is getting everyone's attention by urging us to "train" for the pandemic as you would train for a sporting event. We know that an incredibly high percentage of people hospitalized with COVID-19 present with preexisting conditions such as obesity, diabetes, high blood pressure, and excess visceral fat. Dr. Sinha explains the importance of training for what he calls the Coronalympics as follows:

The initial exposure to COVID-19, known as the viral load, is only one part of the chain of events that can lead to severe illness or death. If you come in contact with the coronavirus, the power of your immune response—specifically, the release of chemical messengers called cytokines—determines your fate. This is known as the cytokine load. If the cytokine response is too severe, your immune system will essentially attack itself, resulting in potentially fatal complications such as fluid-filled lungs and irreversible heart damage. If you can manage your cytokine load with a strong respiratory and cardiovascular system (bolstered by daily

exercise) you have the potential to rebuff exposure to COVID-19 in the first place or deal with it as a minor illness versus a major life-threatening disease. The same is true not just for preventing other infections in the future but also for minimizing the risk of developing chronic illness.

Dr. Sinha suggests that you will fare much better against all manner of exposure to pathogens, ranging from the common cold to a global pandemic, if you possess three attributes: an intact immune system (which is strongly correlated with healthful eating and regular exercise), an intact respiratory immune system (again, regular exercise helps keep the sinuses and lungs clear, with strong filtration abilities), and a strong aerobic system (which builds strong accessory breathing muscles, which in turn are vital in preventing severe complications from infection). Spread the message to your friends and loved ones: you should, at the very least, increase all forms of general everyday movement and ditch the Big Three toxic modern foods, which I'll cover below.

The Big Three Toxic Modern Foods

The Big Three toxic modern foods are sugars, grains, and refined industrial seed oils. Until you rid your diet of the Big Three, you will remain stuck in carbohydrate dependency and unable to efficiently access and burn stored body fat.

The Big Three have long formed the foundation of the modern diet, to the great detriment of human health. A grain-based, high-carbohydrate diet prompts wildly excessive insulin production (in contrast to the genetically optimal ancestral diet), lifelong insidious weight gain, and an assortment of disease patterns driven by metabolic syndrome. You're

probably aware of the idea that refined grains lack nutrition and spike blood sugar quickly. The metabolic response to a slice of white bread or a forkful of plain pasta is not much different from the response to a tablespoon of sugar. In white flour products, the original wheat kernel has been stripped of two of its natural components: the bran (containing fiber, vitamins, and minerals) and the germ (containing fatty acids and antioxidants). The remaining segment of the plant, the endosperm, delivers a dose of “naked” carbohydrate calories that spike blood sugar quickly.

Unfortunately, whole grains such as whole wheat bread, brown rice, rolled oats, and the like (with the bran, germ, and endosperm preserved) have been recommended as the centerpiece of a healthful diet. This is a highly problematic premise that has made the Standard American Diet (SAD) a dismal failure of phenomenal scale and severity. Indeed, whole grains, with the three segments intact, deliver incrementally more nutritional benefits and a lower initial glucose spike than refined grains, but the nutritional value of grains pales in comparison to that of truly nutrient-dense foods such as fish, eggs, liver, fermented foods such as sauerkraut and yogurt, and colorful produce. *Know this*: both whole and refined grains are a cheap source of calories that are easy to harvest, process, and transform into the highest-profit items in the grocery store, such as cookies, crackers, chips, baked goods, snacks, treats, and frozen meals. The rationale for a grain-based diet is based on decades of flawed science and manipulative marketing, driving a profit machine for food manufacturers and creating a disease paradigm. The epidemic of diet-driven metabolic syndrome is also a reliable profit center for the medical and pharmaceuticals industries.

The other huge objection to eating whole grains is that they contain natural plant toxins, a.k.a. *antinutrients* or *antigens*, which can trigger systemic inflammation, autoimmune reactions, and leaky gut syndrome. Gluten is the most prominent offender, and many sufferers have figured out how immediately destructive this agent in modern-day wheat

products can be. It's becoming increasingly apparent that at some level we are all sensitive to gluten and other antinutrients found in grains, because we have not evolved to eat these unnatural modern foods and they are extremely difficult to digest. Yes, the first cultivation of grains, around ten thousand years ago—the catalyst for the advent of civilization—counts as “modern” on the evolutionary timeline.

The chronic and usually mild symptoms that we experience from consuming grains and assorted other plants that cause reactions in sensitive individuals is so widespread that we have come to believe that gas, bloating, constipation, transient abdominal pain, and occasional diarrhea are a normal part of life instead of an adverse response to the plant toxins that you have slammed down your throat every day since infancy. Millions of ancestral health enthusiasts have reported amazing healing stories after they ditched grain-based foods and emphasized evolution-tested hunter-gatherer foods. Enthusiasts of the increasingly popular carnivore diet (see [here](#)) are taking it a step further and restricting their intake of virtually all plant foods. The healing stories include sudden and dramatic improvements in nagging inflammatory and autoimmune conditions such as arthritis, allergies, asthma, leaky gut syndrome, assorted skin conditions, and all manner of digestive and elimination dysfunction.

It's also time to take a close look at refined, high polyunsaturated industrial seed oils, a.k.a. vegetable oils, especially because they may be a less familiar villain than sugars and grains. As Dr. Shanahan explains in *The Fatburn Fix*, refined seed oils don't spike insulin, as processed carbohydrates do, but they disrupt metabolic functioning in ways that promote insulin resistance. Seed oils are extracted from the raw materials of corn, cottonseed, safflower, soybean, sunflower, and rapeseed (from which canola oil is derived) at high temperatures with the use of harsh chemicals. This results in oxidative damage to the product, damage that is greatly exacerbated when the oil is heated for cooking or used in making assorted baked, processed, packaged, or frozen food

products.

By contrast, the naturally high volume of oil in an olive, avocado, or coconut means that it can be easily extracted without the need for aggressive and harmful processes using high heat and chemical solvents. For example, you may see the designation “first cold pressed” on bottles of extra-virgin olive oil. This indicates that the olive was crushed and pressed only once, without being heated or otherwise processed. This delivers a temperature-stable oil for cooking or consuming directly—on a salad, for example. Dr. Shanahan cites research estimating that 40 percent of all the calories you consume in a restaurant meal come from the seed oils it was cooked in. Holistic health expert and bestselling author Dr. Andrew Weil declares that 20 percent of calories in the SAD come from soybean oil alone. If you visit a typical grocery store, you will see that 60 to 70 percent of all processed, packaged, and frozen foods contain one or more of these insidious health destroyers.

When you ingest refined seed oils, they are not burned for fuel the way other fats generally are because of their unnatural chemical makeup. Instead, their similarity to natural fat molecules confuses the body into integrating these agents into healthy fat cells. Unfortunately, they are very difficult to burn for energy and can greatly hamper your overall ability to burn stored body fat over time. If you have problem areas of fat accumulation that don't seem to go away even when you are losing fat in general, the cellular dysfunction caused by seed oils is likely one of the causes. Seed oils also break down into toxins that generate oxidative damage and systemic inflammation. The adverse health consequences of consuming seed oils are so immediate and extreme that Dr. Shanahan states, “They are free radicals in a bottle; literally no different than eating radiation.”

When toxic oils short-circuit your fat metabolism, you become even more dependent on dietary carbohydrates for energy. Extreme biohacker and elite adventure sports athlete Ben Greenfield, author of *Boundless* and host of the Ben

Greenfield Fitness podcast, observes that seed oils might be considered the gateway to insulin resistance and diabetes because of how they short-circuit fat metabolism. He notes that while refined carbohydrates get the majority of blame in this area, they are arguably less problematic because you can burn them off during exercise, unlike toxic and dysfunctional fat cells. Sugar and refined carbs can be highly destructive in excess but industrial seed oils are inherently destructive at any amount consumed.

THE BIG THREE

Toxic Modern Foods



Sugars/Sweetened Beverages, Grains, Industrial Seed Oils

I include artificial sweeteners as “sugar”—and they should be totally eliminated from the diet as well. In addition to concerns about ingesting chemical agents linked to cancer and emerging concerns about how sweeteners can harm gut bacteria, some research suggests the highly disturbing potential of sweeteners to spike insulin. In *The Obesity Code*, Dr. Fung attests that aspartame spikes insulin by 20 percent—more than plain white sugar! Consequently, sweeteners can deliver a disastrous double-whammy effect of both spiking insulin and confusing the brain’s appetite center to crave real sugar. These mechanisms are part of the *cephalic response*, where the mere thinking about food, smelling food, or tasting a sweet, but non-caloric substance, stimulates the cerebral

cortex to initiate certain digestive functions, such as gastrointestinal secretions and insulin release.

If you innocently down a Coke Zero or Diet Dr Pepper during an afternoon lull at the office, you are giving your brain the familiar and intensely rewarding sensation of sweetness, but without the complete satisfaction that comes with consuming actual sugar calories. Your sweet tooth will be temporarily satiated, but the insulin spike prompted by fake sugar also removes the glucose that is normally circulating in your bloodstream. This causes an energy dip and accompanying hunger spike. These dynamics compel your brain to drain the Coke Zero and subsequently desire real sugar. Long-term studies confirm that diet soda drinkers don't drink fewer calories or lose more fat than regular soda drinkers. While many other factors are in play, it's interesting to note the parallel increase in recent decades of obesity rates and diet soda consumption.

Fructose, the predominant source of carbohydrate in fruit, can also be particularly harmful to fat-reduction efforts. Fructose doesn't spike blood glucose or trigger insulin production as other forms of carbs do because it needs to be processed in the liver before it can be burned for energy. The liver is also where excess glucose is converted into triglyceride and stored as fat. This makes fructose the winner of the "carbohydrate most likely to convert into fat" award—especially if you consume lots of other carbs and don't exercise enough to deplete your glycogen stores. Apologies to the Weight Watchers folks who give fruit a zero point score, but you can overdo fruit consumption to the extent that it inhibits your fat-loss goals. (See [here](#) for the best fruit options.)

Don't get me started about high-fructose corn syrup (HFCS), which delivers the worst of all possible worlds: it has the aforementioned lipogenic properties of fructose; it delivers an insulin spike (because it also contains glucose); and it lacks the protective agents in real fruit (antioxidants, fiber, and so on) that help improve digestion and moderate fructose's

insulinogenic effects. HFCS has also been implicated in promoting systemic inflammation and leaky gut syndrome.

It's pretty simple to ditch toxic oils by making the right choices at restaurants and cooking with natural saturated fats (butter, ghee, coconut oil, tallow, and lard) and heart-healthy monounsaturated fats (avocado and olive oils). Because industrial seed oils are generally tasteless, it's no sacrifice to immediately and permanently eliminate them from your diet.

Sugar and grains, on the other hand, may be more difficult to eradicate. These foods have been shown to have addictive properties and stimulate your appetite, producing a desire to consume more of them. The great work of Gary Taubes (*Good Calories, Bad Calories* and *The Case Against Sugar*) and Dr. Robert Lustig (*Fat Chance* and *The Hacking of the American Mind*) contains details about the ways in which processed carbohydrate foods and beverages flood your dopamine pathways and bind with opioid receptors in the brain, delivering intense instant gratification and a drive to consume more of them. In Dr. William Davis's bestselling book *Wheat Belly*, he presents evidence that the *gliadin* protein contained in our genetically engineered modern-day "dwarf" wheat crop stimulates the appetite receptors in the brain to the extent that you are prompted to consume an additional four hundred calories per day. On ingestion, gliadin degrades into an opioid polypeptide, crosses the blood-brain barrier, and has been linked not only to appetite stimulation but also to behavior disturbances, ADHD, allergic reactions, and impaired immune and neurological functioning.

You may struggle a bit with making these dietary changes if you habitually eat grain-based meals or if you are in the habit of soothing yourself with intensely flavorful sugary sweets and beverages or if you consume lots of processed, packaged, frozen, and fast foods laden with seed oils. The best approach is to commit to total elimination of the Big Three for a minimum of twenty-one days in order to break free from their addictive influences. Over time, sugary treats and grain foods will likely find their way back into your diet on occasion

when you celebrate sensibly, but you can certainly commit to never again consuming industrial seed oils, which can be easily replaced by healthful oils.

During this initial dietary transformation, it's important to surround yourself with alternatives that are extremely nutrient-dense and vastly more nourishing at the cellular level than an ice cream or a Starbucks concoction, which delivers only a few seconds of gustatory pleasure (and minimal nourishment). Because ditching the Big Three is the first step to health, please don't worry about restricting calories, losing fat, or extended fasting just yet. As you begin your transition to metabolic flexibility and efficiency, it's important that hunger, appetite, and cravings do not derail your efforts in any way. Instead, satisfy yourself with delicious go-to meals such as an omelet for breakfast, a colorful salad for lunch, and a nice steak and vegetable dinner. If you find your energy flagging between meals or have a hankering for a snack, feel free to have some vegetables slathered in nut butter, a couple of hard-boiled eggs, a few squares of dark chocolate (with an 80 percent or higher cacao content), or even a tin of sardines. Once you become highly fat adapted and into a long-term *Two Meals a Day* routine, you'll comfortably and naturally move away from snacking, without even thinking about it.

The goal here is to achieve continued forward progress without backsliding into a carb binge or suffering from the afternoon blues or the so-called low-carb flu. That's right: contrary to Flawed Current Conventional Keto Wisdom (FCCCKW—sound it out so you can memorize the acronym...), I don't believe you have to struggle or suffer in any way during your journey. Be gentle with your body and your psyche, eat plenty of nutritious food, and don't deny yourself the pleasure of enjoying meals and enjoying life. When you start skipping meals, cutting out snacks, and extending your fasting periods, your efforts should feel natural and comfortable instead of strained. This is the magic of metabolic flexibility and the reason the *Two Meals a Day* approach will work through thick and thin (including occasional setbacks

and occasional indulgences and celebrations) where other dietary strategies will fail.

The idea is that after twenty-one days you will have built enough momentum to keep the sugars, grains, and seed oils out of your diet indefinitely without a second thought. Over the past decade, hundreds of thousands of ancestral-diet and health enthusiasts have experienced the amazing awakening that comes from cleaning up the way they eat. When you eat with the *Two Meals a Day* approach, you will always be satisfied because you will be giving your body the rich nutrition that it craves, and you will rarely be hungry because you are keeping insulin optimally low and thereby stabilizing appetite hormones that typically spike when you eat high-carb meals.

The Kitchen and Pantry Purge

The Big Three toxic agents are so insidious in our modern food supply, and marketed so aggressively, that they can very easily sneak into your meals and your home despite your best intentions. For example, when using the handy Starbucks mobile ordering app, the default setting for iced teas and other cold drinks in the Flavors category is “4 pumps of liquid cane sugar.” You have to actually select the Flavors option, open a new window, and press the Minus button four times so that you can order a drink without added sugar. There are many fresh food preparations bathed in canola oil at natural-foods supermarkets that proudly tout their commitment to product selectivity and environmental sustainability. Read labels (see the list below for what to watch for), ask questions (track down manufacturers online if necessary), be ever-vigilant, and commit to a zero-tolerance, total-elimination policy for seed oils, chemical additives, GMOs, and generally inferior foods.

Following is a pretty extensive list of foods and beverages to eliminate, but please honor the spirit of the list when you encounter similar products that aren't specifically mentioned. When dining out, politely but assertively find out exactly

what's in your meals and negotiate changes to avoid toxic ingredients. Insist that your meals be cooked in butter, lard, or olive oil instead of seed oil—or dine elsewhere.

Note that the day 1 assignment of the 12-Day Turbocharge is a determined wielding of the garbage can as you purge offenders from your refrigerator and cupboards and clear space ahead of an imminent shopping spree for nutritious ancestral foods. If you're like I am and don't want to wait another moment to clean up your act, go ahead and take immediate action with the book in one hand and the garbage can in the other. Doing some advance work before the Turbocharge will make things easier and more fluid during the intensity of the twelve-day experience.

Following, by category, is an assortment of foods to eliminate.

Industrial seed oils: Bottled cooking oils (canola, cottonseed, corn, peanut, soybean, safflower, sunflower, and anything identified as “vegetable oil” or “vegetable shortening”); condiments with those oils listed on their labels (including most mayonnaise, salad dressing, sauces, and dips, unless proudly stated otherwise on the label); buttery spreads and sprays (Smart Balance, Promise, I Can't Believe It's Not Butter); deep-fried fast food; margarine; packaged and frozen baked goods (you shouldn't be going near those anyway); leftover restaurant entrées (ask for butter next time!).

Sweets and treats: Bakery and pastry shop fare, candy and candy bars, cake, cheesecake, cookies, cupcakes, doughnuts, frozen desserts (ice cream bars, popsicles, and others), frozen yogurt, ice cream, milk chocolate, pie.

Sweeteners: All artificial sweeteners (NutraSweet, Sweet'n Low, Splenda, and others), agave products, brown sugar, cane sugar, evaporated cane juice, fructose, high-fructose corn syrup, honey, molasses, powdered sugar, raw sugar, table sugar, all syrups.

Sweetened beverages: Designer coffees (mochas, blended iced-coffee drinks); energy drinks (Red Bull, Rockstar, Monster Energy); bottled, fresh-squeezed, and refrigerated juices (acai, apple, grape, orange, pomegranate, Naked Juice, and Odwalla concoctions; Nantucket Nectars, Ocean Spray, V8); overly sweetened kombucha drinks (read labels—some are low in sugar; most are not); almond, oat, rice, soy, and other nondairy milks; powdered drink mixes (chai-flavored, coffee-flavored, hot chocolate, lemonade, iced tea); all soft drinks and diet soft drinks, including tonic water; sports performance drinks (Gatorade, Powerade, Vitaminwater); cocktails made with sweet beverages (daiquiri, eggnog, margarita); cocktail mixes made with sugars; sweetened teas (AriZona, Honest Tea, Pure Leaf, Snapple).

Grains: Cereal, corn, pasta, rice, and wheat; bread and flour products (baguettes, crackers, croissants, Danishes, doughnuts, graham crackers, muffins, pizza, pretzels, rolls, saltines, tortillas, Triscuit, Wheat Thins); breakfast foods (Cream of Wheat, french toast, granola, grits, oatmeal, pancakes, waffles); chips (corn, potato, tortilla); cooking grains (amaranth, barley, bulgur, couscous, millet, rye); puffed snacks (Cheetos, Goldfish, Pirate's Booty, popcorn, rice cakes).

Baking ingredients: Cornmeal, cornstarch, and corn syrup; evaporated milk and condensed milk; flours made with wheat, gluten; starch; yeast.

Condiments: Review labels of condiments, sauces, spreads, and toppings. Discard those that contain sweeteners and/or industrial seed oils and choose alternative products in categories such as ketchup, mayonnaise, salad dressing, and barbecue sauce (my Primal Kitchen products are made with an avocado-oil base and are free from offensive agents); avoid all jams, jellies, and preserves (even all-fruit, no-sugar-added offerings).

Dairy products: Processed (American) cheese and cheese

spreads (Velveeta); ice cream; nonfat and low-fat milks and yogurts; all other low-fat, high-carbohydrate dairy products; all nonorganic dairy products.

Discounted products: Beware of items in any category sold at a low price point or put on sale, for they are almost surely inferior in every way to a chemical-free, preservative-free, local, organic, and sustainably grown, raised, and harvested product.

Fast foods: Burgers, chicken sandwiches, fish fillets, french fries, hot dogs, onion rings, chimichangas, chalupas, churros, all deep-fried foods, and most everything offered at traditional fast-food establishments across the developed world. Note: Numerous modern fast-food chains offer much better offerings than what's available at the typical burger joint. Chipotle and other “fresh Mex” offerings are good examples.

Processed foods: High-carbohydrate energy bars, granola bars, trail mixes, processed fruit snacks, and other packaged and bulk-bin snacks made with grains and sugars; packaged, processed, frozen, and fast foods made with grains, refined oils, and/or added sugars.

Low-quality foods on the ancestral list: Conventionally raised meat and poultry from feedlot operations (choose grass-fed beef, pasture-raised fowl, and heritage breed pork instead—details in [chapter 2](#)); prepackaged meat products, such as smoked, cured, and nitrate-treated bacon; bologna, ham, hot dogs, gas-station jerky laden with preservatives, pepperoni, salami, and sausage (search for less processed options in these categories, free from nitrates and other chemicals and preservatives); nonorganic eggs, milk, and other dairy products (choose those that come from pasture-raised animals and are sustainably harvested, or at least certified organic); nonorganic produce with a high pesticide risk (those with difficult-to-wash or edible skins, such as leafy greens and berries); produce out of

season or transported from distant origins (fresh local summer berries, thumbs-up; big-box-store pineapples and mangoes in wintertime, thumbs-down); nuts, seeds, and nut butters processed with oils or covered in sugary coatings; most farmed fish and imported fish (details in [chapter 2](#)).

The purpose of the aforementioned list is not to overwhelm you with what you can't eat but to show you that so many of the foods considered "normal" have been confirmed to be antithetical to health. When you eliminate these detrimental foods from your world, you create more space in your daily caloric allotment for nutrient-dense foods. While the list of preferred foods is smaller, there is an almost infinite variety of ways to enhance the flavors of these with herbs, spices, sauces, dressings, and toppings. The result is that you can make each meal or snack not only more nutritious but also more flavorful and exciting. Making this transition can deliver wonderful improvements in energy levels and chronic health conditions and prompt a natural and efficient reduction in excess body fat. Perhaps most empowering is the sensation that you are no longer dependent on food to sustain your energy and cognitive focus.

Inside your body, great things are happening when you burn clean fuels such as fat and ketones. With less oxidation, glycation, and inflammation occurring when your cells metabolize energy, you may notice better sleep, faster recovery from workouts, and increased cognitive clarity and endurance. And while a high-energy day of commuting, work, exercise, and family life can still leave you fatigued in the evening, it will be a more pleasant sensation of feeling ready to relax and wind down gracefully before bedtime. By contrast, consider how a day fueled primarily by processed carbs can leave you feeling: jittery, agitated, and craving an additional hit of sugar. Being a stress-balanced fat burner makes for a nicer evening in front of Netflix or at the card table, but more important, it helps you escape the prevailing disease patterns driven strongly by carbohydrate dependency.

Granted, ingrained habits, cultural traditions, and an actual physical dependency on carbohydrates can be difficult to overcome. Cleaning up your act is going to take commitment, focus, and resolve. Wake up every day and renew your commitment, reminding yourself why you are pursuing this dietary transformation. Through repetition and endurance, you will create powerful new habits. Instead of worrying about missing out on your old favorites, consider the kitchen and pantry purge as a clearing of space that enables you to *add* more good stuff into your daily diet!

Clean Up Your Act—Journal Exercises

- 1. Lower insulin, lower body fat, lower disease risk:** List some of the main ways you believe you can minimize insulin production through dietary restrictions, modifications to your meal and snacking patterns, and improvements in your daily movement and workout habits.
- 2. Kitchen and pantry purge:** Jot down your thoughts and emotions about the purge. Include a list of some of your favorite foods and beverages that are going to present the biggest challenges and areas of focus when you strive for a total elimination of the Big Three. List some replacement foods and beverages that you'll enjoy.

CHAPTER 2

Emphasize Nutrient-Dense Ancestral Foods (and Eat Your Superfoods!)

Humans evolved to digest an incredible variety of colorful, wholesome, nutrient-dense plants, animals, and even insects. The earliest *Homo sapiens* explorers left East Africa around sixty thousand years ago and proceeded to colonize the entire globe over the next forty-five thousand years. The original human migration route followed the African coastline into the present-day Middle East, then to India, Indonesia, and eventually Australia. Our ancestors enjoyed abundant marine life, rich in omega-3 fatty acids, which are lauded for their potent anti-inflammatory properties as well as their beneficial effects on cognition, immune function, cardiovascular function, and cancer prevention. Paleoanthropologists contend that gaining access to foods high in omega-3 was a prominent driver in the evolution of our outsize brains.

Wherever our ancestors settled, they made the best of what their environment offered. Those living at the northern latitudes likely consumed large amounts of oily cold-water fish and nearly zero plant carbohydrates. Equatorial peoples might have consumed plenty of carbs from wild fruits, vegetables, and starchy tubers. Those who endured long, cold, brutal battles against the elements and food scarcity surely ate nothing for long stretches. Perhaps they subsisted on assorted

plant life and small game just long enough to reproduce—no doubt hoping their descendants would fare better. The takeaway from our evolutionary journey is that we're pretty damn resilient to a variety of dietary strategies and can function well even if we go long periods without having much to eat.

Today, manipulative marketing forces, media hype, and flawed science have made the topic of healthful eating more controversial and confusing than ever. For example, critics who trash the evolutionary rationale might be accused of taking insights out of context or drawing conclusions from flawed science. The saying goes, "Show me the science," but it seems as if there are studies that will validate any imaginable position these days. While we can all agree that industrial food processing and Concentrated Animal Feeding Operations (CAFO)—large livestock facilities—are bad for the body and the environment, distorted and irresponsible proclamations like "red meat causes cancer" tend to go viral without sufficient scrutiny.

An increasing amount of propaganda promoting a whole-foods, plant-based diet contends that this approach is more sustainable and more eco-friendly than an omnivorous diet—and even morally superior to it. These assumptions are aggressively countered by people with differing opinions about how and what to eat. Even among those with extremely similar big picture beliefs, the debating of the nuances can cause confusion to anyone trying to adopt a new way of eating. It's time to put a stop to this nonsense by presenting a simple plan that's inclusive to even those with radically different dietary beliefs. The *Two Meals a Day* plan works whether you're vegan, carnivore, or anything in between.

Perhaps best of all, *Two Meals a Day* puts you in the driver's seat: it lets you design your healthful, enjoyable, nutrient-dense, sustainable-for-life eating strategy. I'm continually asked to identify the best foods to eat, and many times the question seems to carry a sense of desperation. I want to put your mind at ease once and for all. Here's the deal:

you never have to eat stuff you don't like; I want you to enjoy every single bite of food you put in your mouth for the rest of your life. For *Two Meals a Day* to work, there are certain indisputable rules and guidelines you must operate within, but you are free to choose the food groups, specific foods, recipes, preparation methods, and meal times (but you only get two a day!) that feel right to you. I encourage you to maintain an open mind and a willingness to experiment and continually refine and perfect your optimal eating strategy. Remember, with *Two Meals a Day*, you have the flexibility to evolve your taste preferences, adjust your diet to your fitness and health goals, and perhaps change course if you experience health disturbances that you suspect are related to certain foods.

When you establish a baseline commitment to eliminate the Big Three toxic modern foods, you'll be way out in front of the pack and well on the road to achieving your healthspan potential. From there, an assortment of disparate strategies, depending on your genetics, lifestyle factors, fitness and body-composition goals, and individual food preferences and challenges, follow. Even Dr. Peter Attia, one of the world's leading longevity physicians and an expert on extended fasting and ketogenic eating, likes to simplify his boilerplate dietary advice: "Just eat stuff your great-grandmother would have been able to eat."

Beyond eliminating the Big Three, it's essential to strive for the most wholesome, nutrient-dense options in every food category when you shop and uphold the highest standards when it comes to the restaurants and menu selections you choose. It can take a lot of work to be sure that the foods you put in your grocery bag and those that are served to you meet these high criteria. Today's food-industrial complex has bastardized many inherently healthful foods, and manipulative marketing is persuading us to eat an assortment of garbage, provided it's characterized by misleading buzzwords such as "heart-healthy," "gluten-free," "cholesterol-free," "100% real fruit," and so forth. Even the word *organic* has been ridiculously misappropriated to universally mean "healthful."

We have massive marketing propaganda convincing you that heavily processed, chemical-laden meat substitutes (that even contain industrial seed oils!) are somehow better for you than real meat.

This chapter will explain how to choose wisely in each of the ancestral-inspired food categories of meat, fish, fowl, eggs, vegetables, fruits, nuts, and seeds, and healthful modern foods such as organic high-fat dairy products and high-cacao dark chocolate. I will also introduce you to some superfoods with particularly impressive nutritional benefits. Unfortunately, these superfoods are often absent from the meals of even the most health-conscious eaters. For example, our hunter-gatherer ancestors routinely consumed an entire animal in “nose-to-tail” fashion. Organs were highly prized and believed to have exceptional healing properties. Nothing went to waste—even carcasses would be boiled down for days to yield incredibly nutritious bone broth. Today, we typically consume only the muscle meats of an animal (e.g., burgers, steaks, chicken breasts and thighs) and avoid the liver and other organs, which are among the most nutrient-rich foods on the planet.

Fermented and sprouted foods were also a central element of the ancestral diet, delivering potent probiotics that are essential to the health of the gut microbiome. Today, our ability to process, pasteurize, and refrigerate food largely negates the need to sprout and ferment, and these foods have become marginalized instead of emphasized as a healthful part of a daily diet. This chapter will provide all the information and guidance you need to choose the very best foods in each category and add a superfood element to your diet that can propel you to a high level of energy, focus, health, and disease prevention.

Meat and Fowl

Animal flesh has been the centerpiece of the human diet over the course of evolutionary history and provides an array of nutritional benefits, especially the highly bioavailable

complete protein that is the most important dietary requirement for health and survival. Today, meat consumption has become controversial, primarily because of highly objectionable concentrated animal feeding operations that deliver inferior products, mistreat animals, and cause environmental pollution. All the objections to eating meat, including the supposed connection between red meat and cancer, can be overcome by relying on local, sustainable, grass-fed, or certified organic meat whenever possible. You also must avoid overcooking meat (charring generates potentially carcinogenic compounds) and avoid all manner of processed meats (chemically treated hot dogs, bacon, sausage, bologna, salami, frozen meats, and almost all fast-food offerings). Granted, consuming only the cleanest meat and fowl can be expensive, but this is the food category where your selectivity matters the most.

Feedlot animals are given hormones, pesticides, and antibiotics to prevent illness and increase yield in crowded, unsanitary, polluting environments. An animal's muscle tissue and organs can be negatively affected by its malnourishment and unhealthful living conditions. If you purchase mass-market meat or fowl, you are likely getting an insulin-resistant animal (resulting from its unnatural, grain-based diet) with between ten and thirty times more pesticide exposure than you get from produce and with significantly more proinflammatory omega-6 fatty acids in its tissues. The omega-6 fats come from the accelerated fattening on fortified grains that occurs over the final months of an animal's life before slaughter. By contrast, pasture-raised and grass-fed animals have between two and six times more anti-inflammatory omega-3 and monounsaturated fats than feedlot animals, along with higher levels of other vitamins, minerals, and micronutrients, and have a much richer and more satisfying flavor.

You might be surprised to see the diminutive size of a pasture-raised chicken in your local farmer's market in comparison to the bloated offerings found at the supermarket, but the flavor intensity of a pastured chicken or bacon from a

heritage breed pig will blow you away. The same is true when you taste a hamburger made of grass-fed purebred Wagyu beef and compare it to a bland fast-food burger, which actually requires meatlike flavoring chemicals just to be palatable (read Eric Schlosser's *Fast Food Nation* for details). In a single bite you will see the light and resolve to never go back to conventional meat and fowl.

The ideal choice in meat and fowl is a local animal that was 100 percent grass-fed or pasture-raised. Get familiar with your nearby farmer's markets, natural-foods grocers, and food co-ops. Talk to proprietors, because they are typically very passionate and informed about how to find the best food for you and your family. Explore specialty butchers and ethnic markets for options other than the mass-produced favorites—cow, pig, chicken, and turkey. For example, lamb, buffalo, and venison are more commonly grass-fed and sustainably harvested. There are many great internet resources, too, if your local options are limited. ThriveMarket.com, WildIdeaBuffalo.com, LoneMountainWagyu.com, ButcherBox.com, and GrasslandBeef.com can get you started on finding the best quality meat.

Food labeled with the certified USDA Organic seal is the next best choice after local, grass-fed, and pasture-raised meat or alternative meats. Chain grocers, natural-foods grocers, and even big-box stores are stocking an increasing amount of organic meat. Organic certification ensures that the animals were raised without hormones, pesticides, antibiotics, genetic engineering, irradiation, sewage sludge, or other detrimental practices and lived in humane conditions where they were able to move around freely. However, organic meat is a distant second choice to animals that were 100 percent grass-fed (cattle, buffalo, lamb) or pasture-raised (chicken, turkey, pork), because even organically raised animals likely ate a suboptimal grain-based diet and lived a primarily confined life instead of roaming in nature. Be wary of the many other descriptive phrases you might see on meat and fowl, because such claims are minimally regulated and thus of dubious

value. These include “free-range,” “hormone-free,” “antibiotic-free,” “natural diet,” and the like. That said, these messages hint at an improvement over feedlot products emblazoned only with the logo of a major brand. As consumer awareness and demand increase, it’s getting easier and becoming more affordable to find the very best meat and fowl, so set your standards high and do the best you can to locate grass-fed and pasture-raised meat.

Fish

Fish and other marine life have been a centerpiece of the human diet for millennia and rank among the most nutrient-dense foods on earth. Plant-based eaters can do themselves a big favor by including fish in their diets. Marine life is a fantastic source of protein; vitamins B, D, and E; the minerals selenium, zinc, iron, magnesium, and phosphorus; and full-spectrum antioxidants. Fish are the richest dietary source of the lauded omega-3 fatty acids (especially the hard-to-find DHA and EPA types), which enhance brain and nervous system functioning, protect against cardiovascular disease, and have powerful anti-inflammatory properties.

Oily, cold-water “SMASH” fish (sardines, mackerel, anchovies, salmon [wild-caught], and herring) have the highest omega-3 values and overall health benefits. As an added convenience, canned varieties of these fish are easy to find and very affordable. The shellfish family (clams, crab, crayfish, lobster, mussels, oysters, shrimp, scallops) is also highly regarded for its unique and potent nutritional offerings. The high zinc content in oysters boosts testosterone and dopamine, giving them a well-deserved reputation as an aphrodisiac. The widely popular canned tuna is nutritious and affordable; the best varieties are white, light, and albacore. Look for label distinctions or niche brands conveying some environmental sensitivity, because the major commercial tuna providers get low scores from watchdog groups (see below).

Be sure to expand your consumption of seafood to include

the nutritional superstar seaweed—namely, kombu, kelp, nori, and wakame. These seaweed varieties are the best source of dietary iodine, which is critical for healthy thyroid functioning and hard to find in other foods. Enjoy the unique flavor and phenomenal nutrient density of fish eggs (roe), such as salmon roe and caviar. They are one of the only rich dietary sources of vitamin D and are very high in omega-3s, the all-important vitamin B₁₂, and selenium. The Weston A. Price Foundation, regarded as the leading resource for the study of nutrition and health in traditional ancestral populations, confirms that our ancestors associated the consumption of fish roe with fertility; great efforts were made to find roe and feed it to women who wanted to become pregnant.

As with meat and fowl, you must strive to find the most nutritious and sustainable fish options and avoid numerous categories of low-quality fish. Avoid all packaged, processed, boxed, and frozen fish products, especially breaded and deep-fried offerings. In general, strive to avoid most types of farmed fish; fish imported from the Baltic Sea, Chile, and Asia, because of concerns about polluted waters, chemical use, and long transport times; predatory fish (king mackerel, mahi-mahi, marlin, shark, swordfish, big tuna) because of their potentially high levels of mercury and other contaminants; and fish that are endangered or caught by environmentally damaging methods (bluefin tuna, Chilean sea bass, orange roughy, red snapper). To keep informed about the frequent changes and updates in the latter category, visit MontereyBayAquarium.org, MSC.org (the Marine Stewardship Council), and EDF.org (the Environmental Defense Fund).

Most farmed fish are environmentally problematic and nutritionally inferior to wild-caught fish, but some are okay. In Nicolas Daniel's documentary, *Fillet-Oh!-Fish*, the producers say: "Through intensive farming and global pollution, the flesh of the fish we eat has turned into a deadly chemical cocktail." In particular, farmed Atlantic salmon, which comprises an estimated 90 percent of the US salmon market, should be

avoided. You can be sure your restaurant is serving farmed Atlantic salmon unless it proudly specifies otherwise. Dr. Joseph Mercola, author of *Fat for Fuel* and publisher of the popular Mercola.com health information website, cites a study in which farmed Atlantic salmon were five times more toxic than any other food tested!

Farmed salmon and many other farmed fish are raised in cramped, polluted pens and exposed to high levels of dangerous chemicals (polychlorinated biphenyls [PCBs], dioxins, methylmercury, dieldrin, toxaphene, ethoxyquin). These are fat-soluble compounds that accumulate in the flesh of fatty fish such as salmon. Farmed salmon have two to five times more fat than wild fish and five times more inflammatory omega-6 fatty acids because of their junk-food diet, which typically includes refined seed oils! Like their land-based counterparts in feedlots, farmed salmon are given hormones, pesticides, and antibiotics to ward off disease in their cramped, unsanitary conditions.

There are certain categories of farmed fish with minimal toxin levels and good nutritional profiles that make them safe to consume. Stick with US sources to avoid concerns about pollution and lax chemical regulations in countries such as China, Chile, and Baltic Sea nations that export a high volume of fish. For example, farmed freshwater coho salmon is acceptable. If you see farmed “organic” salmon from British Columbia, Ireland, or Scotland, it may be a step up from mainstream farmed salmon, but there are still objections that warrant a pass on farmed salmon. If budget is a concern, try to find wild-caught salmon in a can or previously frozen, because it will be considerably less expensive than fresh wild-caught salmon.

Safe domestic farmed fish include barramundi, catfish, crayfish, rockfish, sablefish, striped bass, tilapia, trout, and most farmed shellfish. In addition, farmed shellfish are attached to a fixed object, just as they are in the wild. They don't eat artificial feed, and they have a nutritional profile similar to that of their wild counterparts. When you shop for

the ever-popular shrimp (the number one seafood in the United States), be sure to choose a US-sourced product. Most shrimp is imported from unsanitary farms located in other countries.

To be sure you are getting quality products and avoiding toxic fish, stick to the SMASH hits of the fish family, keep up-to-date on sustainability from the aforementioned websites, and find a quality provider of fresh fish. With any luck you can find a specialty market in your area or a great internet resource. VitalChoice.com has a wonderful selection of high-quality seafood, for example.

Eggs

Eggs are the original superfood—the essence of life—and deliver across-the-board nutritional benefits. Egg whites contain high-quality complete protein, while the yolks are a treasure trove of antioxidants, anti-inflammatory compounds, healthful omega-3 and saturated fats, and vitamins A, E, K₂, B complex, and folate. Eggs are particularly high in choline, which boosts memory and cognition and supports cell maintenance and DNA synthesis. Eating eggs presents plant-based eaters with an opportunity to obtain nutrients that are easy to become deficient in when avoiding most animal foods. One of the most ridiculous conventional stupidities is to advise against egg consumption. Another is to eschew the yolks in favor of the whites. Meta-analyses (compilation studies of data from hundreds of individual studies) have completely refuted any connection between egg consumption and heart disease, or even egg consumption and blood cholesterol levels, and confirmed the tremendous nutritional benefits offered by eggs.

Local, farm-fresh eggs sold by hobbyists or farmer's market vendors are the premier choice in this category. The chickens enjoy an active and omnivorous outdoor lifestyle, with a diet of insects, lizards, worms, weeds, grasses, and seeds. They lay eggs with a nutrient density vastly superior to that of the eggs laid by chickens confined to industrial facilities, who consume processed feed laden with

objectionable hormones, pesticides, and antibiotics. Their bright orange yolks (from the natural sources of beta-carotene in their diets) can contain up to ten times more omega-3s than egg yolks from conventionally raised hens. Anyone who has tasted a farm-fresh egg from a pasture-raised chicken can attest to the incredible flavor intensity that will make you a lifetime convert. The cost-benefit ratio—paying a few extra bucks per dozen for a superfood—is a no-brainer.

Beyond a true local farm-fresh egg, retail cartons labeled with both “pasture-raised” and “certified humane” or “animal welfare approved” are the next best choice. This indicates that the chickens were afforded significant access to pasture and the aforementioned natural food sources and that their supplemental feed was typically certified organic and of superior quality to conventional feed. Ranked next are cartons with the distinction “pasture-raised.” Without the “certified humane” or “animal welfare approved” labels, their access to pasture may have been limited, and they may have consumed more feed than natural food, but they are still considered excellent. Eggs from pasture-raised hens are enjoying increasing mainstream distribution, and you should strive to avoid anything below this ranking. You can likely find the pasture-raised distinction (and the certified humane or animal welfare approved designations) on at least one brand and perhaps more at your favorite local grocer. Vital Farms distributes its pasture-raised, certified humane eggs to major national and local grocery chains and big-box stores, including Whole Foods Market, Walmart, Target, Publix, Kroger, and even Amazon Prime home delivery.

If you can't find pasture-raised eggs, certified organic eggs are the next best choice. Organic eggs are free of undesirable hormones, pesticides, and antibiotics, and the hens are probably afforded less crowded and more sanitary living conditions than conventionally raised birds. Eggs labeled with assorted unofficial designations such as “omega-3,” “natural diet,” “free-range,” “cage-free,” “vegetarian,” or “hormone-free” are also likely superior to conventional eggs from a

crowded indoor chicken-coop operation. However, don't be deluded by marketing terms. Omega-3 looks good on a carton, but it likely indicates that the chickens simply had some flaxseed added to their feed. Be vigilant about finding fresh eggs, because many conventional eggs can routinely be thirty days old on the store shelf. An eggshell should feel robust and take some effort to crack. It's so easy to find quality eggs that you should think "pasture-raised or bust" and never settle for a conventional egg or even a merely certified organic egg.

Another healthful and adventurous idea is to look for alternatives to chicken eggs. Duck eggs and quail eggs are typically available at natural-foods grocers, farmer's markets, and food co-ops. Try to discover emu, goose, gull, ostrich, pheasant, and turkey eggs and try them out. Alternative eggs are obviously not from feedlot operations and thus offer nutritional benefits similar to those of a pastured-chicken egg.

Vegetables

Vegetables have high levels of antioxidants, flavonoids, carotenoids, and phytonutrients that help optimize metabolic, immune, and cellular functioning. They help protect the brain and the body from the ravages of aging and oxidative stress and help nourish healthful bacteria in your gut microbiome. Vegetables grown aboveground (leafy greens, peppers, asparagus, tomatoes, and those in the cruciferous family [broccoli, cauliflower]) are high in complex carbohydrates and low in starch, with abundant fiber and water content. This means you can consume them liberally without an adverse insulin response, even if you are trying hard to reduce excess body fat or stick to keto carbohydrate limits.

Root vegetables, grown in the ground (beets, carrots, onions, parsnips, rutabagas, sweet potatoes, turnips, yams), absorb high levels of antioxidants, vitamins, and iron from the soil, making them nutritional powerhouses. In comparison to aboveground vegetables, root vegetables have a higher starch content and potentially have more carbohydrate and insulin

impact. If you are trying to lose fat, they warrant moderation, but they're a great supplemental carb choice for high calorie burners. Root vegetables, along with fruits, have the fewest toxin concerns in the plant family (see below), making them a good choice for carnivore-style eaters looking to safely include plants and carbs in their meals. Exclude white varieties of potatoes from your options, because they have more starch and are highly glycemic, laden with pesticides, and less nutritious than potatoes with colored flesh.

The cruciferous family ranks particularly high on the nutrition scoreboard. Named for their cross-shaped flowers, they include arugula, broccoli, bok choy, brussels sprouts, cabbage, cauliflower, and kale. These foods have stellar anticancer, antioxidant, antimicrobial, and antiaging properties. Red-colored veggies (and fruits) are believed to help prevent prostate cancer; greens have antiaging benefits and support vision health; yellow and orange foods have antioxidant and anti-inflammatory properties. The USDA's ORAC (oxygen radical absorbance capacity) report provides antioxidant values for individual foods, but it's safe to conclude that all vegetables are teeming with micronutrients. Some of the vegetables with the highest antioxidant scores are beets, broccoli, brussels sprouts, carrots, cauliflower, eggplant, garlic, kale, onion, red bell peppers, spinach, and yellow squash.

You should be selective about your vegetables for a few reasons. To avoid pesticide risks, choose organic produce if the skin is going to be consumed or is difficult to wash. Reject the hype touting vegetable juices and powders as superfoods, because they will always be inferior to the real thing. You'll definitely get a concentrated dose of certain beneficial agents, but you'll also get a bigger sugar hit with juice and a reduction in nutritional value with a powder that's undergone even the most basic processing. Finally, if you believe you may have sensitivity to the natural toxins contained in plants, monitor your consumption of the foods in the various vegetable (and other plant food) categories to detect any adverse reactions,

especially when you consume vegetables in raw form. Signs of plant reactivity include gas, bloating, and digestive pain in association with vegetable consumption as well as chronic autoimmune or inflammatory conditions that have resisted traditional medical treatment.

The best option by far is to buy local, in-season, pesticide-free vegetables grown on small farms. You can usually find these at a farmer's market or natural-foods grocer in your area. Finding locally grown, in-season produce from small farms ensures that you avoid the perils of the food-industrial complex and enjoy freshness, great flavor, and rich nutrition. Often, small farms don't go to the expense of obtaining official organic certification, but you can gain a level of comfort knowing that your product was grown in a sustainable manner free from the typical pesticides and chemicals of industrial farming.

The next best choice is to buy certified organic vegetables, which are now prevalent in national chains such as Costco, Walmart, Whole Foods Market, Target, Kroger, and others. Locally grown and certified organic produce delivers more nutritional benefits than conventionally grown products, without the increasingly disturbing health concerns associated with large-production farming, which relies on pesticides. You may be familiar with glyphosate, a toxic herbicide that is widely used for both landscaping (yards, parks, golf courses) and commercial farming. The popular weed killer Roundup is one of hundreds of products containing glyphosate. Despite growing evidence that glyphosate is a carcinogen that inflicts cellular damage at the DNA level, it remains in heavy use. Monsanto, the creator of this toxic weed treatment, has even developed genetically modified crops to withstand heavy exposure to glyphosate. This is one of those examples of conventional stupidity that I call "digging a hole to install a ladder to wash the basement windows."

Conventionally grown vegetables are also frequently raised with nutrient-deficient monocrop soil. They're picked too early, artificially ripened with ethylene gas, and shipped from

distant locations to your local market. This makes them a thumbs-down in both sustainability and nutritional value. If you want vegetables whose chemical exposure risk is high—those with a large edible surface area (spinach, kale, leafy greens) or those whose skin is consumed and/or difficult to wash (bell peppers, celery, cucumbers, carrots)—be firm in your resolve to only eat local or certified organic products. Foods in these categories are also treated with some of the most powerful and toxic pesticides, so take a hard pass on these offerings. If you want vegetables (or fruits) with tough, inedible skins or rinds (avocados, squash, bananas, melons), those that are easily washable or with nonedible skins (onions, asparagus), and all nuts and seeds, the pesticide exposure risk—and the need to find organic options—is less critical.

Don't Eat Your Vegetables?

The emerging carnivore diet movement offers a surprising challenge to the widely assumed health benefits of eating vegetables and suggests that many individuals can benefit from an experimental period of total exclusion of all plant foods. This includes grains, especially, as well as legumes, vegetables, fruits, nuts, and seeds. As I mentioned in [chapter 1](#), grains and all other plants contain natural toxins that deter predators from consuming them. These agents include lectins (gluten is a form of lectin found in wheat; other grains and legumes have high amounts of other lectins), phytates (prominent in nuts and seeds), oxalates (in leafy greens, nuts, and legumes), isothiocyanates (found in cruciferous vegetables), saponins (in beans and legumes), enzyme inhibitors (high in soybeans), phytoestrogens (in soy, corn, and flaxseeds), the tannins in fruit, and many other agents.

These toxins can be neutralized through cooking, soaking, sprouting, and fermenting—in many cases a plant is inedible or poisonous without these preparations. Nevertheless, consuming plants still delivers significant residual exposure to antinutrients, especially if consumed in raw form. The level of

potential harm varies depending on the plant and the individual. For someone with celiac disease or a peanut allergy, consuming problematic foods can cause a severe immediate reaction. For others, decades-long consumption patterns can result in subclinical symptoms that are never directly associated with a specific plant but can really harm both short-term and long-term health. This was the case for me. Eating grains caused all manner of mild to moderate digestive ailments and inflammatory conditions (my “normal”), which quickly vanished when I ditched grains, in 2002.

The popularity of gluten-free, grain-free, ancestral-style eating validates that ditching all grains, or at least nasty modern dwarf wheat, can alleviate moderate digestive and inflammatory conditions and lower insulin production. Until recently, fruits, vegetables, nuts, and seeds have been touted—unchallenged—as all-powerful superfoods with nothing but high marks across the board. The increasingly popular carnivore movement, however—spearheaded by physicians and athletic role models Dr. Shawn Baker and Dr. Paul Saladino and popular blogger and decade-long adherent Amber O’Hearn—is buoyed by thousands of truly amazing stories of people who have stopped consuming plant foods and thereby healed assorted chronic illnesses or sprouted six-packs in short order. Visit Dr. Shawn Baker’s MeatRx.com for hundreds of success stories in dozens of disease categories submitted by carnivore enthusiasts. Listen to Dr. Saladino’s *Fundamental Health* podcast or read his book, *The Carnivore Code*, for extensive scientific support for the carnivore approach.

You may be under the assumption that chomping on a head of broccoli or downing a handful of blueberries delivers a direct dose of potent antioxidants and anti-inflammatory agents into your bloodstream. What’s actually happening when you ingest high-antioxidant plant foods is that the antinutrients in the plant prompt your liver to mount an internal antioxidant defense response. We fight back against the minor poisoning,

which fine-tunes the immune system and inflammatory response, delivering a net positive adaptive benefit, or *hormesis*. The same dynamic of stressing the body appropriately (hormetic stress) in order to get stronger happens when we do a set of dead lifts, sprint around the track, visit the sauna, or take a brief plunge into freezing water. By contrast, when you train too hard with insufficient recovery time, get overheated during a hot workout or competition, or get lost in a snowy forest and become hypothermic, the chronic or severe nature of the stressor obviously becomes unhealthy.

This is precisely the problem with frequently consuming plant toxins, especially in the presence of other chronic modern stressors such as junk food, sleep deficiency, excess exercise, and stressful job or relationship dynamics. For people who are not genetically adapted to efficiently digest certain plant foods, even occasional servings of bread, pasta, or raw kale smoothies is too much. For example, gluten and other lectin proteins have been shown to damage the delicate microvilli that line your small intestine. When this important barrier becomes inflamed and permeable, undigested bacteria and toxins are allowed to enter the bloodstream. This is a phenomenon known as leaky gut syndrome. When foreign agents enter the bloodstream, your body perceives this shit (sorry, but the term is apropos here) as a virus and mounts an autoimmune response. Over time, eating seemingly healthful plant foods can overwhelm the body's defenses and trigger an assortment of autoimmune and/or inflammatory reactions. Leaky gut syndrome has emerged in medical science in recent years as a likely downstream cause of all manner of chronic illnesses and diseases not just in the digestive system but also throughout the body, including allergies, arthritis, asthma, colitis, inflammatory skin conditions (acne, psoriasis), insomnia, irritable bowel syndrome, joint pain, sleep apnea, and assorted other conditions ending with "itis" (gastritis, diverticulitis).

The gas, bloating, indigestion, and transient abdominal pain that virtually all of us report occasionally or regularly can

be attributed to consuming plant toxins as well as heavily processed foods. Sadly, it's so commonplace that we have collectively come to view digestive irregularities as normal and fail to make the connection between diet and our suffering. This is especially the case when we have been programmed to believe that salads and raw vegetable smoothies represent the holy grail of healthful living. Consider this quotation from an extreme healthful eating enthusiast and elite athlete friend who reports that he gets a bloated abdomen every time he consumes a smoothie packed with raw produce: "It's so healthy, it's worth it." Something's wrong with this picture!

If you have even mild recurrent digestive discomfort after meals, swings in energy, mood, or appetite during the day, or if you otherwise suspect you may be sensitive to plant toxins, you will most definitely experience a tremendous health awakening by not eating any form of nutrient-deficient, high-insulin-stimulating, leaky-gut-promoting grains. If you are interested in further exploration and optimization, consider a strict thirty-day ban on all plant foods. Many enthusiasts report vastly better digestion and elimination, an absence of gas and bloating, and even improvements in depression, anxiety, ADHD, and other mood and cognitive disturbances.

After a strict elimination period, you can experiment with reintroducing the least risky plants over time. These include fruits, starchy vegetables, cooked vegetables, and nuts, seeds, and legumes that have been soaked, sprouted, or fermented. Monitor your body carefully for any adverse gastrointestinal reactions and determine your comfort level with plant intake. I've been grain-free for nearly two decades and am pretty selective in my consumption of fruit (I eat berries in the summertime.) However, vegetable consumption has been a centerpiece of my diet with no ill effects. After all, my signature meal is the Sisson Bigass Salad ([here](#)), laden with my own healthful avocado oil-based dressing. Still, intrigued by the carnivore rationale in recent years, I've noticed that I've drifted away from the consumption of high volumes of

vegetables and toward a meat-based, animal superfood-focused diet.

Fruit

Fruit has long been regarded as a central element of healthful eating and is a great source of broad-spectrum antioxidants and micronutrients. However, it's easy to eat too much of the wrong kinds of fruit at the wrong times, so moderation and selectivity are warranted in this category. Today's year-round availability, genetic engineering of larger, sweeter fruits grown in depleted soil, and the excessive carbohydrates in the SAD make fruit a potential trouble area. The best bets are locally grown, in-season fresh fruits with relatively high antioxidant and low glycemic values. Berries are the superstar in the fruit category and can be consumed liberally when fresh and in season. Even if you are a strict keto enthusiast, you can enjoy fresh local or certified organic blackberries, blueberries, raspberries, and strawberries in the summertime. Finding wild fruit would be the ultimate goal, but if that is not possible, seek out local farmer's market fare or certified organic products.

While I'm not too keen to split hairs about your consumption of colorful natural foods such as fruit, we have to acknowledge fruit's contribution to metabolic syndrome, a global health epidemic. Fruit can exacerbate the problem of excess body fat because it is the most lipogenic (fat-forming) of all forms of carbohydrate. Fructose is the predominant carbohydrate contained in fruit. Unlike carbohydrate sources that can be burned immediately, fructose must be first converted into glucose in the liver before those calories can be burned. The liver also happens to be the place where excess glucose is converted into triglyceride and stored in your fat cells. Unfortunately, slamming down fruit because it gets zero points from Weight Watchers can contribute directly to excess body fat and other metabolic problems. Fructose has been found to be five to ten times more likely than glucose to

promote fatty liver disease and insulin resistance. Furthermore, many people have difficulty digesting fructose, especially processed fructose, such as that found in high-fructose corn syrup and processed foods—a condition known as fructose malabsorption. Symptoms include flatulence, cramps, bloating, and diarrhea, and there may be a link to depression.

Dr. David Perlmutter—a neurologist, expert in functional medicine (a.k.a. root cause-based medicine) and gut microbiome health, and author of the bestselling *Grain Brain* and related titles—recommends not eating any fruit during the winter months because doing so runs counter to our evolutionary experience. Limit your fruit consumption to seasonal and local offerings and hold off entirely if you are trying to drop excess body fat. If you have symptoms of fructose malabsorption, first eliminate all processed fructose from your diet and consider a fruit-restriction period as a test. Furthermore, understand that fruit exists on a nutritional spectrum, ranging from high antioxidant–low glycemic (the best) to low antioxidant–high glycemic (the ones to limit). Berries, lemons, limes, and stone fruits (cherries, peaches, apricots) rank among the best. Avocados are also technically fruits and rank among the true superfoods: they are obviously high antioxidant–low glycemic because of their high monounsaturated fat content. Low antioxidant–high glycemic fruits that should be moderated or avoided include tropical fruits (mangoes, papaya, pineapple), grapes, tangerines, plums, and especially dates and dried fruits because of their extremely high sugar content and caloric density (since they lack fiber and water).

If you have healthy blood profiles, an ideal body composition, and an active, physically fit lifestyle, fruit can be a dietary centerpiece and a great way to restock depleted glycogen after workouts. Remember: while the liver converts excess carbs to fat, it is also a major storage depot for glycogen. Fruit is also a sensible choice if you are concerned about plant antigens (see [here](#)), because fruit has much lower levels of the toxic agents that concentrate in other types of

plants (grains, legumes, leafy greens, cruciferous vegetables).

Nuts, Seeds, and Their Derivative Butters

Nuts and seeds are another “life force” food category. They contain nutritious protein, fatty acids, enzymes, antioxidants, phytonutrients, and abundant vitamins and minerals. Numerous large-scale dietary studies (including the Iowa Women’s Health Study, of nearly 40,000 women; the Harvard T. H. Chan School of Public Health Nurses’ Health Study, of 127,000 women; and the Physicians’ Health Study, of 22,000 men) suggest that regular consumption of nuts, seeds, and their derivative butters significantly reduces the risk of heart disease, diabetes, and other health problems.

These foods are extremely satiating and have been touted as an excellent snack option that will help ease the transition from carbohydrate dependency to metabolic flexibility. In the same breath, however, ancestral enthusiasts also observe that the caloric density of nuts, seeds, and their butters can compromise fat-reduction goals. Don’t worry: while snacking is acceptable in the early days of your transformation, you’ll leave it behind when you become fat-adapted. Furthermore, when you focus on maximizing dietary nutrient density, and the food choices and lifestyle behaviors that promote hormone optimization, your hunger and satiety signals will naturally stabilize your caloric intake and body composition.

Be sure to find options that are raw or dry-roasted, because many leading brands of packaged nuts contain refined industrial seed oils that are used during processing. Read labels carefully! Consume fresh nuts within six months or store them in the freezer to extend shelf life. If the nuts you have on hand start to smell oily or rancid, or if they develop flecks in their surface color, discard them.

The ultrapopular peanut is actually a member of the legume family and is one of the most common allergenic foods. As with all other plant foods, if you can tolerate peanuts and peanut butter without any adverse reaction, it is probably safe

to enjoy them. If you have nagging autoimmune or anti-inflammatory conditions, however, peanuts are a good candidate for temporary restriction so you can assess whether they have any impact.

Nut butters are gaining in popularity. Single-serving packets are great for convenient energy on the go and are a perfect replacement for high-sugar gels. If you can find the rare but decadent delicacies macadamia nut butter and coconut butter (Brad's Macadamia Masterpiece has both, at Bradventures.com), they rank right up there with dark chocolate as a delicious, satisfying treat to replace your old sugary options.

Puree your favorite nuts in a food processor, and you have an interesting way to liven up a salad or a plate of steamed vegetables. Make nut butters a base for your Brad's NOatmeal ([here](#)) or spread them onto fresh vegetables. For a decadent dessert treat, spread pureed nuts on a piece of dark chocolate (one that has an 80 percent or higher cacao content) and let it melt in your mouth. Macadamia nuts are lauded for having the highest monounsaturated fat content (84 percent) of any nut or seed, while walnuts have the highest omega-3 content. Enjoy these delicious, nutritious foods, but exercise some moderation if you are trying to shed body fat.

High-Fat Dairy Products

The rule of thumb for strict Paleo adherents is to eat only foods that existed in prehistoric times, but I like to make ancestral-inspired eating as inclusive and enjoyable as possible. Certain high-fat dairy products can be enjoyed because they are nutritious and have minimal health drawbacks. However, it's very important to choose wisely. The gold standard in dairy is raw, fermented, unpasteurized, unsweetened, high-fat, low-carbohydrate, organic selections—including ghee and butter; full-fat cream, cottage cheese, and cream cheese; and raw or certified organic whole milk—from pasture-raised and grass-fed animals. You can also enjoy

organic fermented dairy products, including cultured buttermilk, full-fat Greek yogurt, kefir, raw-milk cheese and aged cheese, and full-fat sour cream.

Avoid all low-fat and nonfat items, such as 2 percent and skim milk, nonfat yogurts, fruit-flavored yogurts, low-fat cottage cheese, imitation whipped cream, imitation coffee creamer, fat-free cheese, ice cream, frozen yogurt, and all other frozen dairy desserts. These products are essentially sugar bombs and can cause digestive problems and allergic reactions in many people. Avoid all nonorganic dairy products because of the manufacturers' abhorrent processing methods and the high prevalence of hormones, pesticides, and antibiotics in the animals and the end products.

Lactose is the form of carbohydrate found in dairy products, and approximately 80 percent of the global adult population has a mild to severe intolerance for it. If you have developed lactose intolerance after childhood, you may experience an assortment of digestive difficulties (gas, bloating, diarrhea, constipation, transient sharp digestive pain) after consuming high-carbohydrate milk products.

Casein is one of the two types of protein in dairy products; whey is the other. Casein is classified as either A1 or A2, and research strongly suggests that A2 casein may be much easier to digest than A1. A1 casein is believed to trigger autoimmune reactions and leaky gut syndrome in many people. Most conventional milks and dairy products in the store come from cows producing both A1 and A2 casein. You won't be able to tell the difference unless you are sourcing alternative brands specially designated as pure A2 cow's milk. A2 happens to be the form of casein in goat's milk and yogurt and sheep's milk and yogurt, which is why many lactose-intolerant folks fare much better choosing alternative milks. Dr. Steven Gundry, bestselling author of *The Plant Paradox* and *The Longevity Paradox*, believes that most lactose intolerance cases are really A1 intolerance. Most modern cattle produce A1 casein after thousands of years of selective breeding for the heartiest, highest-production animals; they just happen to be A1

producers.

Symptoms of casein sensitivity include digestive difficulties, sinus inflammation, excess mucus production, and flare-ups of autoimmune conditions such as arthritis, allergies, asthma, acne, and skin rashes. Casein is believed to stimulate opioid receptors in the brain and promote food addiction as well as contribute to mood and cognitive disturbances. By sticking to dairy options that are either fermented or have a high fat content, you can minimize or negate concerns about lactose and casein.

Most dairy products in the supermarket have been pasteurized and homogenized to protect against food-borne pathogens, improve product consistency, and extend shelf life. These high-temperature, high-pressure processes destroy many of the nutrients in dairy products as well as the enzymes and beneficial bacteria that help you digest them. Pasteurization and homogenization alter the molecular composition of milk, making the component fats, proteins, and carbohydrates difficult to digest. Studies of people suffering from lactose intolerance reveal a huge success rate in alleviating symptoms upon switching from conventional milk to raw milk. One Weston A. Price Foundation survey of seven hundred families revealed that 80 percent of lactose-intolerant participants were able to drink raw milk without difficulty; another study, from the University of Michigan, showed an 84 percent success rate. Studies of European children suggest that consuming raw milk helps protect against allergies and asthma.

Consequently, raw milk or cheese obtained directly from a local farm or trusted provider is the most nutritious choice—if you can find it. Raw milk from a grass-fed cow has across-the-board nutritional superiority to conventional pasteurized and homogenized milk, including higher levels of omega-3 fatty acids; conjugated linoleic acid (CLA) fats, which support fat metabolism; assorted fat-soluble vitamins that are hard to find in other foods; calcium; antimicrobial agents; and butyrate, to support gut health and reduce inflammation. You have likely heard dire warnings to avoid raw dairy products because of the

risk of ingesting dangerous food-borne bacteria. But experts such as Chris Kresser, MS, LAc, a functional medicine educator and author of *The Paleo Cure*, have revealed these warnings to be overstated. It would indeed be ill-advised to consume raw milk from a conventionally raised cow because of their crowded, unhealthful, unsanitary feedlot environments. These concerns are why it's virtually impossible to find mass-market raw milk or other raw dairy products on store shelves. However, raw milk is invariably sourced from boutique local dairies raising grass-fed cattle in a sustainable environment that makes the risk of food-borne illness actually lower than it is in most other food categories.

If you can't find raw dairy products, be sure to choose certified organic products to avoid the many objectionable agents (hormones, pesticides, antibiotics) routinely included in their nonorganic counterparts. Being certified organic is especially important for high-fat dairy products, because toxins concentrate in the fat cells of animals. Conventional dairy products routinely contain recombinant bovine growth hormone (rBGH), dangerous chemicals such as PCBs (polychlorinated biphenyls), POPs (persistent organic pollutants) such as the evil pesticides DDE and DDT, illegal antibiotics, and other impurities. These chemicals all increase cancer risk and cause massive health problems—so much so that you should avoid nonorganic dairy products entirely.

Fermented dairy products can qualify as superfoods because of their elevated levels of all the important nutrients and their potent anti-inflammatory and antioxidant properties. The fermentation process also offers protection against lactose and casein intolerance, even if your fermented products contain carbs and protein. The presence of lactic acid bacteria that results from the fermentation process delivers high levels of B vitamins; vitamin K₂; healthful conjugated linoleic acid; bioactive peptides, which aid in digestion; and of course the all-important probiotic bacteria strains, which nourish your gut microbiome. Fermented dairy products such as cultured buttermilk, cheese, kefir, sour cream, and yogurt have been a

mainstay of ancestral diets across the globe since primal times. Kefir has been around since 10,000 BCE and is a time-honored way to help improve digestion and boost immune functioning. Enjoy the very best dairy products and be extremely disciplined in your choices—avoid all nonorganic products as well as low-fat and nonfat sugar bombs.

Dark Chocolate

Dark chocolate is a delicious and nutritious treat with numerous health benefits and a low carbohydrate content. After a short period of acclimation, it can become your go-to treat in place of the typical sweet-tooth fare that you reach for when you want a little something after dinner. Strive to consume bars that have a high cacao percentage and the “bean-to-bar” designation on the label. High cacao, bean-to-bar dark chocolate is a rich source of antioxidants (polyphenols, flavonols, catechins), numerous phytonutrients, and broad-spectrum minerals, including iron, chromium, copper, magnesium, and manganese. The ORAC antioxidant values of the cacao bean are among the highest ever measured—higher than other superfood superstars such as acai berries and blueberries. Cacao also has more flavonols than green tea. (Flavonols are bioactive compounds with assorted health and anti-inflammatory benefits, such as increasing nitric oxide levels, which improves arterial functioning.)

You may have heard about the powerful opioid peptide in chocolate called *phenylethylamine*, a.k.a. the love drug. This hormone-like substance, which also occurs naturally in your brain and body, acts as an amplifier for numerous mood-elevating neurotransmitters such as dopamine, serotonin, and norepinephrine. Sensible consumption of dark chocolate can help improve mood, focus, concentration, and motivation as well as alleviate anxiety and stress. Essentially, the potent compounds in cacao help prevent your delicate neural circuits from becoming overexcited or, alternatively, emotionally flat and burned out.

Dark chocolate is the most prominent dietary source of an agent called *theobromine*, which has cardiovascular benefits, acts as a natural stimulant and memory booster, and reduces inflammation. It also acts as an appetite suppressant. *Epicatechin* is another prominent flavonoid in dark chocolate that has been found to boost nitric oxide production. Nitric oxide helps make arteries more soft and supple, lowering blood pressure and protecting your cells against free radical damage. Other research reveals that dark chocolate can protect against heart disease by lowering oxidized LDL cholesterol (the most causative for atherosclerosis) and increasing healthful HDL cholesterol. Dark chocolate enthusiasts are amused by the legend of the late Jeanne Calment of France (1875–1997), the longest-lived human on record, who died at the age of 122. Calment reportedly consumed high volumes of olive oil and up to a kilogram (2.2 pounds) of chocolate each week!

Dark chocolate is labeled according to the percentage of ingredients, by weight, obtained from the cacao bean. A 100 percent cacao bar has no added sugar and a bitter taste. A milk chocolate or semisweet chocolate bar has sugar and milk powder added, putting it an entirely different food category from dark chocolate—i.e., a sugar bomb! Choose dark chocolate bars that contain at least 70 percent cacao and avoid many offerings labeled “dark chocolate” that can be as low as 45 percent cacao. As you acclimate your taste buds away from your go-to sweets of the past and begin to appreciate the intense, savory taste of dark chocolate, strive to progress to eating bars that are in the range of 80 to 90 percent cacao. This will ensure that you are getting the maximum nutritional value with the minimum amount of sugar. Review labels to be sure that there are more grams of fat than sugar in your bar, which should be the case with high-cacao bars.

Selectivity is warranted when choosing dark chocolate brands because many bars use large-scale processing methods and bulk ingredients of unknown origin and questionable quality control—for both the product quality and labor

practices. It's common for large-scale commercial producers serving the giant candy industry to harvest substandard cacao beans, including rotten ones. Then beans are cavalierly overroasted to burn out any rotten taste and mixed with enough sugar, lactose, dextrose, corn syrup, vanilla, and artificial flavorings to create a palatable end product—with a low price and a high profit margin. Many inferior bars undergo “Dutch” (yep—a Dutch chemist named Casparus van Houten invented the process in 1828) processing, with alkali, to reduce acidity, improve flavor, and lower processing costs. However, this substantially reduces the flavonol and polyphenol content as well. Even more disturbing is the fact that many cacao producers in African nations with minimal government regulations use child labor to harvest their crop. If you are buying a mainstream big-brand dark chocolate bar priced at around a dollar per ounce, you can assume your bar is a product of child labor. Expect to pay vastly more for an ethically sourced, high-quality dark chocolate bar—in the neighborhood of three to five dollars per ounce.

In contrast to industrialized chocolate production, the best cacao comes from small farmers methodically growing and harvesting an exquisite product through low-tech, labor-intensive fermentation and air-drying techniques. These beans are teeming with antioxidants and phytonutrients and carry subtle flavor notes of the soil, climate, and flowers and fruit of the area. This natural environmental flavoring concept—called *terroir*—is typically found in wine production, but it also exists in the world of elite dark chocolate bars, which can be said to offer fruity, floral, spicy, herbal, nutty, and caramel notes.

To find the best bars, look for these designations on the label: bean-to-bar, fair trade, and certified organic. Bean-to-bar means the artisanal chocolate maker sourced the beans from their origin in equatorial cacao farms and completed all the production steps in-house to get that bar into a wrapper. Consequently, you want to see “cacao beans” first in the ingredients lineup and a bare minimum of other ingredients.

The best bars will typically be made of cacao beans, sugar, perhaps some cocoa butter to enhance mouthfeel, and perhaps vanilla—that's it. By contrast, the first item in a mass-produced bar might be chocolate liquor, cocoa mass, chocolate, or bittersweet chocolate, indicating that the ingredients were premixed and melted into an intermediate-stage product of obscure origin. You may also notice other objectionable ingredients in cheap bars. For example, it's common to use soy lecithin as an emulsifier: if it's in your chocolate bar, you're getting a dose of genetically modified soybeans.

The fair trade designation indicates a product made using environmental sustainability practices under equitable working conditions and without child labor. It means that farmers receive fair prices for their harvest and that the producer invests additional funds in community redevelopment. A certified organic designation assures greater oversight of the growing, harvesting, and processing procedures for the cacao beans, sugar, and any other ingredients in the bar. Bars made without synthetic pesticides, fertilizers, herbicides, and GMOs protect the farmers, the environment, and your health.

Keep in mind that many small cacao farmers, like local growers of produce, might grow their crop naturally but don't bother to apply for expensive organic certification. Read labels carefully and look for cacao beans as the lead ingredient. It is worth the effort to communicate online with favorite chocolate manufacturers to gain assurance that you are getting a clean product. Be wary of “eco-earthly” brands with touchy-feely logos and labeling—many still contain questionable ingredients despite their higher price point.

Get excited about this sensible indulgence and become a connoisseur! Search for various boutique brands of bean-to-bar dark chocolate and engage in some ceremonial taste-testing with friends and family. Focus all your senses on the experience. Break off a small square and enjoy its aroma. Instead of biting into the chocolate, allow the square to rest on your tongue and soak in the flavor until the chocolate

dissolves. You'll grow to appreciate various mouthfeels, flavor profiles, and textures—and discover some favorites. Some outstanding bean-to-bar artisanal chocolate providers: Askinosie.com, CoracaoConfections.com, CreoChocolate.com, HuKitchen.com, KellerManniChocolate.com, LillieBelleFarms.com, RitualChocolate.com, and TazaChocolate.com. Visit BarAndCocoa.com for a wide selection of premium bean-to-bar products (cacao percentages range from 60 to 100 percent) from around the world.

Once you get your hands on some prized bounty, be sure to avoid the rookie mistake of refrigerating your bars. Refrigeration destabilizes the fats and sugars in the bar, causing them to rise to the surface—perhaps you've seen white streaks on bars that have been refrigerated. Store your chocolate in a cool, dry place, such as a cupboard or even a custom-built basement chocolate sanctuary. And don't forget: no biting! Just savor the flavor.

Beverages and Hydration

Forget the commercials showing sweaty athletes sucking down sugar-filled “recovery” drinks for multimillion-dollar endorsement contracts—water is the drink of champions. The main objective in this category is to avoid consuming sweetened beverages that deliver massive amounts of carbohydrates with minimal satiety. This includes coffee-shop concoctions and the huge assortment of energy drinks, sports drinks, refrigerated juice blends, and other products covered in the beverages-to-avoid section of the previous chapter. Even a fresh-squeezed vegetable or fruit medley teeming with antioxidants is going to deliver enough of a sugar hit to warrant a pass. Yes, it's natural sugar from fruit, but juicing concentrates the dose. What's more, these drinks are typically layered on top of a high-carbohydrate diet, thus making a contribution to hyperinsulinemia rather than to the vibrant health and boundless energy promised by the marketing

messages.

From a foundation of adequate daily water consumption, you can also enjoy unsweetened herbal or caffeinated tea, coffee (cream is fine, but keep added sugar to a bare minimum), and homemade kombucha that has been naturally sweetened and fermented. Read labels and watch out for overly sweetened commercial kombucha offerings with excessive carbohydrate content, or cut these drinks with soda water (three parts soda to one part kombucha). Recently, the market has exploded with a range of low- or no-calorie beverages, including still and sparkling waters with fruit infusions. Stay away from products containing artificial sweeteners. It would be better to make your own cucumber-lemon water at home than go for something that often tastes ridiculously sweet because of its artificial or natural sweeteners, such as stevia. Beverages with natural, nutritious fat calories are acceptable, such as bone broth, raw milk, kefir, and unsweetened coconut and almond milk. However, these latter “drinks” might be more appropriately categorized as foods.

You may have heard various edicts about hydration, ranging from the long-standing “eight glasses a day” to “sip constantly,” promulgated by fitness experts who urge you to carry a bottle around wherever you go. For the most part, simply honoring your thirst mechanism will help you hydrate effectively. Virtually everything you eat and drink has significant water content and will contribute to your hydration goals. Even coffee hydrates nearly as effectively as plain water despite its short-term diuretic effect. Bone broth, Greek yogurt, vegetables, berries, fish (comprising 65–90 percent water), and steak (around 75 percent water) all hydrate nicely. The Mayo Clinic estimates that solid foods can provide up to 20 percent of your hydration requirements.

Even if your fluid consumption varies from day to day, your kidneys and endocrine system do a marvelous job of maintaining optimal fluid and electrolyte balance in the bloodstream at all times. If you drink too much fluid, urine

production increases, and more sodium is released into the bloodstream. If you're exercising on a hot day, sweating and underdrinking to the extent that your blood becomes concentrated by 2 percent, you will experience extreme thirst, compelling you to rebalance. The medical consequences of dehydration only kick in when your blood gets 5 percent concentrated, so we humans have plenty of safety-net mechanisms to ensure we are well hydrated almost all the time. After all, there were no CamelBaks or Klean Kanteens in primal times.

The picture gets a little more complex for high-performing athletes who experience increased sweat production and calorie burning. During intense or prolonged workouts, your elevated body temperature and stress hormone production can actually mute your thirst mechanism. Also, as your body perceives a high rate of fluid loss, vasopressin (an antidiuretic hormone) triggers the kidneys to dump extra fluid into the bloodstream to support your work efforts, which mutes your thirst mechanism as the kidneys are telling you, "We got this." Losing sodium and other electrolytes through sweating can create imbalances that increase dehydration risks. Your body needs to maintain a delicate and optimal water-to-sodium ratio at all times, so sodium deficiency will inhibit water absorption.

Typically, athletes who eat nutritious foods, rehydrate well after tough workouts, and respect the importance of recovery will stay well hydrated. However, a pattern of challenging workouts in hot temperatures, possibly combined with diet and fluid-intake shortcomings, can eventually cause you to start drifting into a state of chronic mild dehydration. If you commence a workout with your blood a bit concentrated, you'll probably feel fine and your body will rally to perform on demand. However, this will also increase the stress impact of the workout, extend recovery time, and set you up for real trouble at future workouts. If you attempt to rehydrate by consuming a huge volume of plain water immediately after your workout, you can overwhelm the delicate sodium-fluid balance and cause most of your chugalug to be excreted

instead of absorbed by tissues throughout the body.

For optimal absorption, always include a bit of sodium with the fluid you consume. Use unprocessed pink Himalayan salt or ancient sea salt instead of iodized salt to get the benefit of dozens of additional minerals. If you work out and sweat regularly, strive to consume an additional five to ten grams (one to two teaspoons) of sodium per day. Add a pinch of salt to each cup of liquid or several good shakes from a dispenser into every liter that you drink. Adding this amount will not taste unpleasant. Then sip your fluid gradually over the next hour or two for efficient absorption. Interestingly, adding a bit of glucose or sucrose to your drink has been found to improve fluid absorption in the intestines. You can add a pinch of sugar per eight ounces of water, or try 100 percent natural coconut water (no added sweeteners), lauded for its naturally optimal sodium and electrolyte levels.

The ideal strategy here is to be mindful of hydration when you are rested instead of getting into trouble after a string of hot, strenuous workouts. If you have elevated hydration needs because of a busy job, a heavy workout schedule, or hot summer temperatures, carry around a thirty-two-ounce or forty-eight-ounce stainless steel container and sip from it throughout the day. It's widely recommended in the fitness community that you consume a large volume of water as soon as you awaken, so go for it (don't forget the salt). Resolve to never, ever drink to the point of discomfort or feeling bloated or you will risk a serious health condition called *hyponatremia*, which arises when you dilute sodium levels to the extent that you can lose consciousness or even die. Respect the difference between strategic hydration and oblivious overhydration.

Don't get too worked up about water quality and finding the absolute highest purity or buying expensive products touting magical cellular energy, alkalizing, or detoxification. If you can afford natural, mineral-rich springwater in glass bottles, you will enjoy the best taste and health benefits. If you are using municipal water, consider investing in an under-the-

counter reverse osmosis system, or at least use a pitcher or refrigerator dispenser with carbon filtration.

Try to avoid consuming water out of plastic bottles except when there are no other options. Evidence is mounting about the damage caused by xenoestrogens (unnatural estrogenic compounds from industrial sources) in plastic packaging, personal care and household cleaning products, and our food supply. Ingesting these agents or absorbing them through the skin can disrupt the delicate hormone balance in both sexes with an unnatural estrogen overload.

At the very least, resolve to never allow your food or drink to touch plastic. Replace plastic plates, cups, water bottles, and food storage containers with glass or stainless-steel vessels. The most detrimental effects occur when your plastic container heats up, because this increases the release of estrogenic molecules into your food or drink. Never drink out of a plastic bottle that's been sitting in a car (even if it's cooled down), and never microwave food in plastic containers. When eating take-out meals, transfer them out of the plastic or Styrofoam and onto a proper plate to enjoy. To extend your estrogen avoidance efforts further, use eco-friendly personal care products, such as coconut oil for your face and castile soap for your body. Also make sure to avoid all foods made with soy, corn, and flax, which have one hundred times more phytoestrogens (plant-based estrogens) than other foods.

STRATEGIES TO MINIMIZE THE ADVERSE EFFECTS OF ALCOHOL

In my 2009 book, *The Primal Blueprint*, I categorized alcohol as a “sensible indulgence” for people who felt compelled to imbibe. I even sang the praises of red wine’s antioxidant benefits. After much reflection, and a successful experience with abstinence a few years back to correct some sleep disturbances that I blamed on metabolizing alcohol,

I now offer a more sobering take on the subject. I no longer feel the need to explicitly recommend consumption of a toxic substance that can easily interfere with your fat-reduction goals. I assert that you are better off not consuming alcohol, despite studies that suggest moderate drinkers outlive teetotalers. Nevertheless, I'm all about enjoying life and encouraging you to do the same, so if sensible alcohol consumption will likely be part of your scene, it's certainly worth addressing. I drink organic, chemical-free, sugar-free, low-alcohol red wines on a regular basis and will occasionally enjoy premium tequila and other alcoholic beverages in party settings. Let's review how to make the least detrimental alcohol choices and of course resolve to always drink moderately and responsibly.

Alcohol calories are known as the "first to burn" because they must be metabolized immediately on ingestion, thanks to their toxicity to the brain and other organs (that's why you feel the "buzz"). As your liver works hard to metabolize alcohol and detoxify your system, the burning of all other fuel sources is put on hold. Any glucose and fatty acids in the bloodstream are likely to be removed and sent to fat storage. When you finish metabolizing the alcohol calories, you will have low blood sugar and a craving for quick-energy carbohydrates. Can you say "the munchies"? Contrary to the common misconception that your body converts alcohol into sugar or fat, it is the empty-calorie, appetite-stimulating, and lipogenic properties of alcohol that make drinking a real downer for your fat-reduction goals.

The first-to-burn effects are magnified when the alcohol combines with the carbohydrates in beer, wine, and cocktails, not to mention the pizza or finger foods you might throw into the mix.

Consequently, the least damaging way to consume alcohol is by drinking hard liquor, such as tequila, vodka, rum, or whiskey, on an empty stomach, independently of other calories. This strategy will also result in the most potent immediate buzz, so responsible drinking is essential. When you consume a drink in isolation (not social isolation; rather, without other calories), you are still obligated to burn off these empty calories at the expense of other fuel sources, but at least your body will get back into fat-burning mode more quickly than when you consume alcohol together with other calories.

As you strive to make choices about alcohol, it's important to consider that the hangovers we have long blamed directly on alcohol may more likely be the result of the sugar and chemical compounds consumed with it, combined with perhaps junk food, insufficient sleep, and other compounding factors. After all, there are detailed charts calculating the time required to metabolize various alcoholic beverages based on body weight. Theoretically, after you metabolize a reasonable amount of alcohol, you should be able to go about your business and awaken feeling fine after a good night's sleep. This insight—that there is more to the matter than alcohol—became clear to me after I abstained from red wine for several months and noticed some nagging digestive and sleep problems clearing up. For me, the benefits were sufficient to cause me to disavow my longtime evening-glass-of-red-wine routine. Then, at the urging of Todd White, founder of Dry Farm Wines, I tried organic, dry-farmed, chemical-free, sugar-free, low-alcohol red wines. To my delight, I experienced none of the previous symptoms that I had blamed on the wine, ignorant of the hidden sugars and chemical additives in conventionally produced wine. These days, I am careful to drink strategically: empty

stomach, clean alcohol choices, no additional calories. This increases my enjoyment of the social experience and protects me from the hassle and regret of multifactorial hangovers.

Brian “Liver King” Johnson, founder of Ancestral Supplements and one of the most pure and dedicated ancestral-living humans you will find, describes an elaborate protocol for responsible drinking on his AncestralSupplements.com website. He recommends starting with an empty stomach and drinking straight Everclear: at 95 percent alcohol content (190 proof), it’s known as the highest-potency alcoholic beverage on the market. Mix your shot with soda water, freshly squeezed lemon juice, and pink Himalayan salt. Take four of his desiccated grass-fed liver capsules with each drink to help the liver do its detox job. When you stop drinking, you are then to consume an assortment of supplements—more liver, liposomal glutathione, and vitamin C—and up to a dozen egg yolks! Brian reports sleeping beautifully after an evening of imbibing and popping up the next morning with zero ill effects, full of energy for a productive day. This guy is the real deal—he even makes his ice cubes from premium bottled springwater!

If you aren’t inclined to take the elaborate steps recommended by the Liver King when you want to imbibe, you can at least honor a hierarchy of choices. First, thumbs-down to munchie-inducing mixed drinks, as discussed. Most of the adverse effects of drinking extend beyond the alcohol and over to the strawberry syrup in your daiquiri and the large pepperoni pizza you ordered for delivery straight to the bar. Beer is also a poor choice because of its carbohydrate and gluten content. Most commercial wines, even high-priced brands,

contain moderate to incredibly high amounts of sugar, which you can't directly identify as sweetness because of the acidity and tannins in the wine. The sweetest wines contain up to 220 grams of sugar per liter—twice as much as Coca-Cola!

Also, there are often dozens of toxic, yet legally approved, chemical additives present in commercially produced wines. Some are used to disrupt the natural fermentation process that would otherwise reduce the sugar and alcohol content in the end product. This helps achieve the “bold” flavors that consumers and wine critics with a penchant for sweet flavors celebrate. If you choose to drink, your best options are sugar-free, chemical-free wine or high-quality tequila. If you want a mixed drink, blend tequila, vodka, rum, or whiskey with your choice of club soda, coconut water, ice, and herbs such as mint, basil, and ginger. Alternatively, flavor them with fresh fruits or a splash of juice. Get more suggestions in Kelly Milton's book *Paleo Happy Hour*, or find the “Paleo Drinking Cheat Sheet” at her website, PaleoGirlsKitchen.com.

Superfood: Nose-to-Tail Animal Products

The ancestral tradition of consuming the entire animal in a nose-to-tail manner has been tragically forgotten in today's DoorDash world. Instead, marketing influences lure us into choosing the speed and flavor intensity of fast-food burgers, while decades of nutritional propaganda have scared us away from eating animal fat. Today, we predominantly consume lean, high-protein muscle meats such as steak, hamburger, and chicken breast, missing out on a huge percentage of the nutritional benefits the animal has to offer. Fortunately, traditional cooking and nose-to-tail consumption are regaining popularity among ancestral health enthusiasts. You can easily find and enjoy budget-friendly animal superfoods such as

organ meats (known as offal), bone-in cuts of meat, and authentic gelatinous bone broth. These foods have been a centerpiece of traditional diets across the globe for thousands of years and for eons of hunter-gatherers before that. In the modern era, traditional French cuisine is famous for its emphasis on organ meat. You can learn more in Tania Teschke's comprehensive French culture and cuisine cookbook, *The Bordeaux Kitchen*. Or visit a Mexican *carniceria* (meat market) in your community for offerings such as lengua (tongue), sesos (brain), and tripe (stomach lining). Try making menudo (a stew made with tripe) or street tacos made with lengua or sesos.

You can start your superfood mission with liver, arguably ounce for ounce the most nutrient-dense food on the planet (salmon roe could compete here, too). As you know, the liver is the control tower that dispenses the exact amounts and types of nutrients you need into your bloodstream at all times and is the principle detoxifying organ in the body. This makes liver a treasure trove of virtually all the nutrition you need to thrive—a wise selection for a “stranded on a desert island, can only have one food” item. Like lions and other apex predators, ancient human hunters across the globe were known to consume warm liver on the spot after a kill.

Liver's nutritional profile is off the charts, with high levels of B vitamins, iron, zinc, magnesium, phosphorus, selenium, folic acid, choline, and fat-soluble vitamins (A, D, E, and K). For example, beef liver has seventeen times more B₁₂ than ground beef. Liver is especially rich in retinol, the fully formed state of vitamin A, which is easily digested and assimilated, delivering comprehensive anti-inflammatory benefits. Retinol supports ocular health, increases bone density, and protects against cancer. Try coating 100 percent grass-fed beef liver in almond flour and panfrying it in butter or avocado oil. Cook only to medium rare to preserve nutrients. Hard-core ancestral folks like Brian “Liver King” Johnson and Dr. Paul Saladino enjoy their liver (and egg yolks) raw! If you have trouble with liver's strong taste,

consider making a puree of liver and grass-fed hamburger and frying up some superfood burgers. Raw liver can also be more palatable (and more nutritious!) when served frozen (thawed just enough to be sliceable) and salted heavily.

Other organs such as brain, heart, kidney, oxtail (tailbone), Rocky Mountain oysters (testicle), stomach, tongue, and sweetbread (thymus or pancreas) score very well nutritionally, and can add some interesting diversity to your meal options. Find a quality butcher or natural-foods grocer in your area, or an internet resource, and dig into eating nose-to-tail. It's critical to find grass-fed organ meats, because organs contain more fat than muscles, and any toxins present tend to concentrate in fat cells. Organ meats are ridiculously affordable because they are still unpopular. While I enjoy a grass-fed rib eye or premium-quality sushi as much as anyone, pound for pound and dollar for dollar, you can't beat organ meats and canned SMASH fish for nutritional benefits. The affordability of eating this way is important, because I've weathered criticism over the years for recommending an "elitist" diet that is inaccessible to the masses. Take it as a challenge: examine your discretionary purchases and prioritize choosing the most healthful foods. If your budget is tight, you can zero in on the most affordable superfoods and still eat like a king or queen!

Bone broth and bone-in cuts of meat contain potent nutrients that are not found in other foods and can make a huge contribution to your connective-tissue health, immune functioning, and longevity. Consuming the connective tissue in these foods delivers the wondrous substance known as collagen, an emerging nutritional-supplement superstar. Collagen is a type of protein that was central to the ancestral diet but is woefully deficient in today's SAD. Collagen is critical to the integrity of your cartilage, fasciae, tendons, ligaments, bone, hair, skin, and nails. Over time, your natural internal collagen production declines (about 1.5 percent per year after age thirty), causing the wrinkled skin and brittle joints that characterize the aging process.

Collagen is believed to have a remarkable *tropic* effect in the body—the collagen you consume travels through the bloodstream and is deposited in the areas where it's needed most, such as brittle joints and tendons. Bone broth and bone-in cuts of meat are also rich in *glycosaminoglycans*, agents that help make new connective tissue and repair wounds. They act as a lubricant and shock absorber in your joints. Dr. Cate Shanahan, author of *Deep Nutrition*, explains that connective-tissue health is so important that it can be directly indicative of your rate of aging and longevity potential. Centenarians universally have excellent connective tissue. This is partly because of their genetic good fortune, but diet can also play a huge role in countering the natural decline in connective-tissue health as you age.

If you have joint issues or want smoother skin, consider taking a collagen peptide supplement in addition to consuming bone broth and bone-in meats. While research is inconclusive in this area, I became a huge collagen devotee when I experienced an incredibly rapid improvement in a decades-old Achilles tendon condition in conjunction with starting an aggressive collagen-supplement regimen. Now, not only do I get collagen from my diet, I also consume twenty to thirty grams per day in a collagen peptide supplement, as does my wife, Carrie. We're very pleased with the results and will continue this practice for the rest of our lives.

Bone broth is believed to have an assortment of healing properties. It helps neutralize white blood cell activity and open respiratory pathways to speed the healing from colds. This is why the age-old chicken soup remedy has scientific validity. While this is an emerging area of research, bone broth may have a valuable “heal and seal” effect on your gut lining, thus alleviating symptoms of leaky gut syndrome. Numerous success stories support this assertion: bone broth's salutary effects may be attributed to its high levels of glutamine, prompting intestinal cells to produce beneficial mucus that strengthens the gut lining. Bone broth is central to the highly regarded GAPS (Gut and Psychology Syndrome) healing

protocol, in which participants adhere to a diet designed to combat depression, anxiety, ADHD, and autism spectrum conditions. Other potent amino acids in bone broth, such as proline and glycine, can act as inhibitory neurotransmitters, promoting good sleep and delivering an anti-inflammatory effect.

Find a quality bone broth in the store or, to minimize the impact on your budget, you can make your own. If you buy it in a store, understand the distinction between watery products sold in cartons that are often labeled “broth” but are more accurately described as chicken, beef, or vegetable *stock*. A true bone broth is typically sold in a refrigerated or frozen state. It’s gelatinous at cold temperatures but heats into a hearty liquid beverage. A quality bone broth will list bones as the first ingredient and likely mention that it’s been cooked a long time—essential in extracting all the connective tissue and marrow from bones. Be prepared to pay much more for a product authentically derived from joint material than you would pay for simple stock.

To make your own broth at home, save a chicken or turkey carcass or bones from steak or ribs. Or ask your butcher for inexpensive joint material—e.g., knuckles—which offer the richest source of the treasured collagen and glycosaminoglycans. For easy preparation, dump the bones in a slow cooker and cover with chicken or beef stock or water. Add a tablespoon of apple cider vinegar, which helps extract the marrow and cartilage during the long simmering time. For flavoring, throw in some chopped carrots, onions, and sweet potato, a can of tomato paste, and assorted spices, or follow your favorite recipe. Cook at low temperature for forty-eight hours, then strain the liquid into a container. For a superfood breakfast, enjoy a fresh cup of bone broth with a few pastured-hen egg yolks stirred in. When refrigerated, your broth should become gelatinous. A layer of fat may accumulate at the top, which you can scrape off and use for stovetop cooking.

Superfood: Fermented and Sprouted Products

In her bestselling book *Deep Nutrition*, Dr. Cate Shanahan identifies the four pillars of human nutrition: (1) fresh foods, such as vegetables, fruits, nuts, and seeds; (2) fermented and sprouted foods; (3) meat on the bone; and (4) organ meats. These categories might seem unusual for something as important as an all-encompassing dietary recommendation, but traditional cuisines from only one hundred years ago—not to mention the ancestral hunter-gatherer diet—were built on these cornerstones.

Unfortunately, even the most health-conscious eaters routinely fall short in the three latter categories. Fermented and sprouted foods, for example, are some of the best sources of probiotics, which nourish healthful intestinal bacteria and lay the foundation for excellent digestive, immune, hormonal, and cognitive functioning. Choose from apple cider vinegar, raw or aged cheese, kefir, kimchi, kombucha, raw milk, miso, natto, olives, pickles, sauerkraut, tempeh, and full-fat yogurt. These foods contain live cultures ready to nourish your healthful gut bacteria. Some fermented foods, including wine, beer, sourdough bread, and cacao, don't contain live-culture probiotics but still offer a variety of health benefits.

Fermentation occurs when microorganisms such as yeast and bacteria break down the original components of the food (e.g., carbohydrate) into various agents such as acids and alcohol, creating unique tastes and textures. This fermentation process generates microorganisms—probiotics—that have numerous health benefits. *Lactobacillus* and *Bifidobacterium* are two of the most common probiotics, and you often see these contained in capsule form or liquid supplements. Fermented and sprouted foods were centerpieces of the ancestral diet because these processes allow food to be preserved at room temperature for long periods of time. They also improve flavor and neutralize plant toxins. Fermentation and sprouting came in pretty handy in the days before refrigeration and helped people stay well fed during the times of year when there was no fresh food available. In fact, discovering the ability to sprout and ferment the earliest

cultivated grains into bread was a driving force in the advent of civilization.

Fermented foods undergo a process called lacto-fermentation, in which they are submerged in high-concentration salt water (or brine) and sealed in an airtight container at room temperature for as long as two weeks. This anaerobic (lacking oxygen) environment allows the lactic acid bacteria to proliferate and create a fermented end product with a long shelf life. You can make your own sauerkraut, for example, by slicing up cabbage, submerging it in salt water in a mason jar, sealing the lid, and letting it sit for a couple of weeks. Vent the lid for a bit daily to prevent the jar from exploding. Once the cabbage is fermented, you can transfer it to the refrigerator. This arrests the fermentation process and extends the product life further.

The fermentation process varies depending on the food. For example, kombucha is made by preparing very strong and sweet black tea, then adding a starter culture called a SCOBY (symbiotic culture of bacteria and yeast). It's easiest to obtain a ready-for-action SCOBY from a commercial resource or from a hobbyist who makes kombuchas. SCOBYs are plentiful because every batch of kombucha yields a "baby" SCOBY! The tea is fermented in a breathable container at room temperature for ten to fourteen days, during which time the SCOBY consumes the sugar and caffeine to produce a kombucha drink. You can then commence a second fermentation, in which you pour kombucha into sealable jars and add flavorings such as fresh lemon or lime juice, berries, ginger, jalapeño peppers, and many other creative options (explore additional choices in *The Big Book of Kombucha*, by Hannah Crum and Alex LaGory). Sealing the container at room temperature for a few days will allow some carbonation to accumulate and some of the calories from the added sugar to be consumed by the kombucha liquid, teeming with live probiotics. Then you can refrigerate your masterpiece and enjoy a delicious low-carbohydrate, high-probiotic beverage.

You can also sprout grains, legumes, and seeds at home.

This neutralizes their natural toxins, improves bioavailability of the nutrients, boosts antioxidant content, and creates beneficial probiotics. First, rinse and drain raw seeds, beans, or cooking grains and soak them overnight in an open bowl or mason jar. Repeat the process a few times, then allow them to germinate in a warm, dry environment, such as a sealed mason jar. After anywhere from several days to two weeks, you will see evidence of sprouting.

The probiotics in fermented and sprouted foods are believed to promote a healthy gut microbiome. Gut health is an emerging field of medicine that many believe represents one of the greatest wellness and disease-prevention breakthroughs in decades. Dr. Timothy Noakes, the South African author of *The Real Meal Revolution*, *Lore of Running*, and *Lore of Nutrition*, who is also widely regarded as one of the world's leading experts on diet and exercise performance, offered the opinion that “insulin resistance and leaky gut are the future of medicine.” The emerging field of gut microbiome research reveals a powerful gut-brain connection. Researchers are now describing the thirty-foot-long intestinal tract, filled with one hundred million cells of the enteric nervous system (ENS), as the “second brain.” In the fetus, the ENS and the central nervous system develop from the same tissue, and the ENS has a sensory and neuron structure similar to that of the brain. We have all experienced the scientifically validated phenomenon of the intestinal tract being sensitive to emotions, from feeling butterflies before public speaking to suffering transient abdominal pain in conjunction with emotional pain.

Gut bacteria produce important neurotransmitters such as acetylcholine, dopamine, GABA, noradrenaline, norepinephrine, and serotonin, which play a critical role in mood stabilization, motivation, concentration, stress management, happiness, and contentment. Ninety percent of the mood-elevating neurotransmitter serotonin is made by the enterochromaffin (EC) cells in the gut, not the brain! A dysfunctional gut microbiome—in which disease-promoting “bad” bacteria (e.g., *E.coli*, *Salmonella*, and so on), fungi,

viruses, and other pathogens predominate over healthful bacteria—is being blamed as the originating cause of all manner of inflammatory, allergic, autoimmune, and mental health conditions. People with anxiety, depression, obsessive-compulsive disorder, poor emotional regulation, and mood disorders routinely have gut inflammation and bacterial imbalances. Dysfunctional gut bacteria with insufficient microbe diversity is also directly linked to obesity.

Healing your gut by eliminating foods that promote leaky gut syndrome (grains, sugars, industrial seed oils) and increasing your intake of high-probiotic foods can often result in an incredible health transformation. You may find yourself feeling more energetic than you thought possible because you had become so accustomed to a less-than-optimal baseline over the years. You may have heard of a cutting-edge medical procedure called fecal microbial transplantation (FMT). Patients with the life-threatening antibiotic-resistant illness known as *C. diff*—extremely prevalent in elderly and immunocompromised hospital patients—can receive a fecal transplant from a donor with a healthy intestinal microbiome and go from deathbed to restored health within days.

The probiotics you consume in foods and supplements take residence in your digestive tract and nourish only the good bacteria in your gut. This helps good bacteria to flourish and predominate over bad bacteria. With a healthy gut microbiome, you can absorb and assimilate the maximum amount of nutrition from your food, reduce inflammation, increase internal antioxidant production, and improve or eliminate acid reflux, acne, allergies, asthma, irritable bowel syndrome, migraines, psoriasis, systemic inflammation, and autoimmune conditions in all areas of the body. A healthy gut will produce the neurotransmitters that keep you energetic, cognitively sharp, and mood-stabilized. High microbial diversity has also been linked to being able to exercise for a long time without feeling exhausted and to improved heat tolerance during exercise.

You may have heard the term *prebiotics*, also known as

resistant starch or soluble fiber. Found in certain foods, they are indigestible and pass through the small intestine to take up residence in the colon, where they act as a substrate (fuel source) for healthful bacteria. In essence, prebiotics are a fuel source for probiotics! Dietary sources of resistant starch include raw potato starch (sold prepackaged or in bulk bins at a health food store), green (unripe) bananas, and cooked and cooled russet potatoes and white rice. Interestingly, the molecular composition of the latter two items actually changes from carbohydrate (when eaten warm) into resistant starch when eaten cool or cold. Similarly, a green banana is mostly resistant starch but will eventually ripen and convert the starch into carbohydrate for a yellow end product. There are also small amounts of prebiotics in an assortment of plant-based foods, including dark chocolate. In addition to consuming a variety of the aforementioned high-probiotic foods, you can try gradually introducing prebiotics into your diet with an occasional green banana, a couple spoonfuls of cold rice or potato, or a teaspoon of raw potato starch (working up to more over time) in your smoothie or other liquids.

Superfoods and Nutrient Density

Dr. Joel Fuhrman, family physician and author of *Eat to Live* and numerous other books, coined the term *nutritarian* to describe a diet made up of foods that have a high ratio of micronutrients to calories. Dr. Fuhrman explains, “The nutrient density in your body’s tissues is proportional to the nutrient density of your diet. Micronutrients fuel proper functioning of the immune system and enable the detoxification and cellular repair mechanisms that protect us from chronic diseases.” Dr. Josh Axe, a functional medicine practitioner, expert in the gut microbiome, and publisher of one of the most popular natural health websites, DrAxe.com, combined Dr. Fuhrman’s patented Aggregate Nutrient Density Index (ANDI) research with his own research to come up with his list of the world’s top thirty most nutrient-dense foods. The list lines up very well with the information we covered in this

chapter and can serve as a handy guide to ensure that you get maximum variety with your superfood intake.

Dr. Axe's Top Thirty Nutrient-Dense Foods

1. Seaweed
2. Liver (beef and chicken)
3. Kale, collards, and dandelion greens
4. Broccoli rabe
5. Exotic berries (acai, goji, camu camu)
6. Spinach, watercress, and arugula
7. Broccoli and cauliflower
8. Cabbage
9. Red bell peppers
10. Garlic
11. Parsley
12. Berries (blueberries, raspberries, blackberries—local, in-season preferred)
13. Asparagus
14. Carrots
15. Beets
16. Wild salmon and sardines
17. Bone broth
18. Grass-fed beef
19. Green beans
20. Egg yolks
21. Pumpkin
22. Lentils

23. Artichokes
24. Tomatoes
25. Wild mushrooms
26. Seeds (pumpkin, sunflower, chia, flax)
27. Raw cheese and kefir
28. Sweet potatoes
29. Black beans
30. Wild rice

Putting Food Pyramids into Perspective

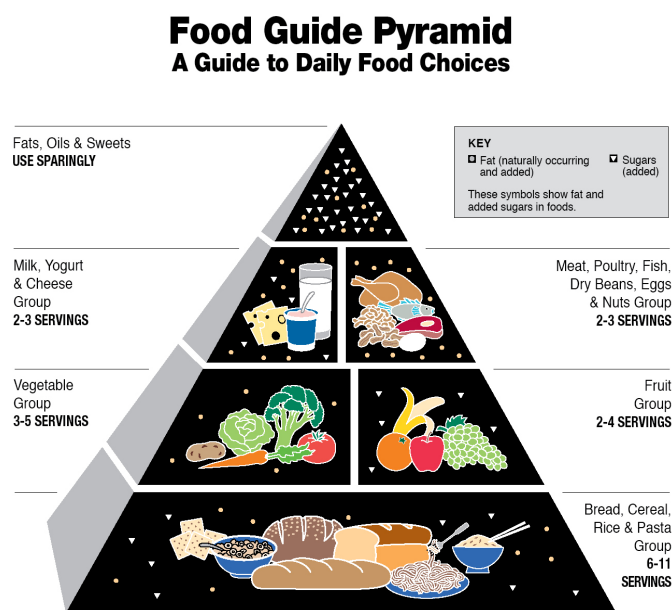
The USDA Food Guide Pyramid has been the most popular visual representation of dietary strategy since the US Department of Agriculture debuted it, back in 1992. While the effects of the ubiquitous grain-based pyramid and the diet it recommended have been disastrous, it may be helpful to compare and contrast various dietary strategies using pyramid imagery.

Conventional Stupidity Pyramid

The 1992 pyramid replaced the “basic four food groups” propaganda that preceded it. This irresponsible and politically corrupt creation is tainted by flawed science (such as recently discovered unpublished data from the 1968 Minnesota Coronary Experiment and the revelation that major influencer Ancel Keys was later outed for cherry-picking data to promote his low-fat diet); elected officials with zero dietary expertise dictating dietary policy to the nation (an example is the US Senate’s McGovern committee orchestrating the great shift away from butter to margarine in the early 1970s); and egregious special-interest lobbying and behind-the-scenes political maneuvering (the pyramid release was delayed at the last minute in 1991 because the secretary of agriculture,

Edward Madigan, said it was “confusing to children,” but skeptics noted that the cattle and dairy lobbies were applying heavy pressure at the time for better pyramid real estate).

The pyramid and its subsequent iterations would shape the dietary habits of the United States and the rest of the developed world for decades afterward. The USDA’s 2005 revision, My Pyramid, depicts a figure ascending stairs up the side of the pyramid, so at least it’s telling us to exercise off some of those refined carbs. Alas, we know this doesn’t work per the flawed compensation theory of exercise!



Source: U.S. Department of Agriculture/U.S. Department of Health and Human Services

In 2011, likely backpedaling as a result of pyramid criticisms, the USDA introduced the Choose My Plate imagery, with sections for fruits, grains, vegetables, protein, and a little dairy on the side. The presentation still promotes a high-carb, high-insulin-producing diet for an American public that now sits as the fattest and sickest population in the history of humanity (nearly three-quarters of men and 60 percent of women are classified as overweight; 40 percent of adults are obese).

Dr. Cate Shanahan minces few words when she asserts that US dietary recommendations of the past half century have

been “a big giant human experiment to see how many people will die when 60 percent of their calories come from toxic junk.” According to Dr. Marion Nestle, an advocate of healthful food and the author of numerous books, including *Food Politics: How the Food Industry Influences Nutrition and Health*, “The pyramid controversy focuses attention on the conflict between federal protection of the rights of food lobbyists to act in their own self-interest and federal responsibility to promote the nutritional health of the public.” She also calls attention to “the inherent conflict of interest in the Department of Agriculture’s dual mandates to promote U.S. agricultural products and to advise the public about healthy food choices.”

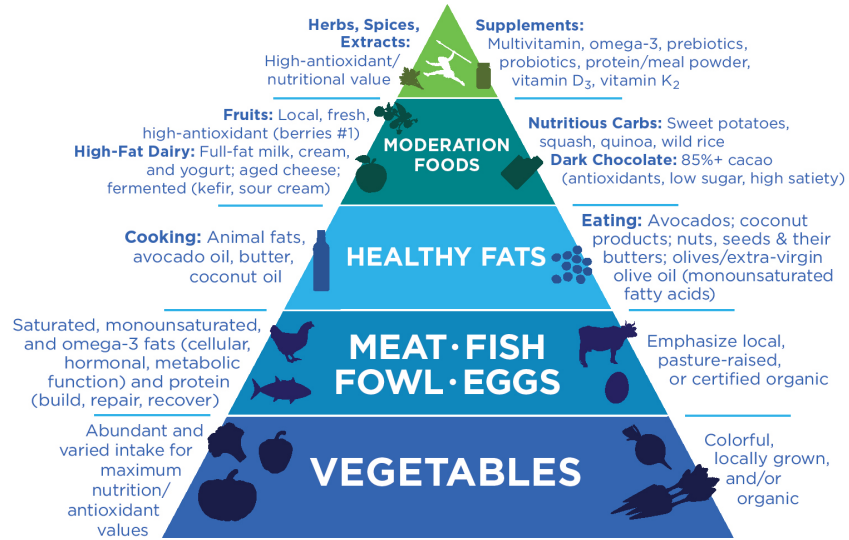
Let’s examine some more evolved and healthful pyramid imagery and use a Venn diagram to see the interplay between various dietary strategies that are popular today.

Primal Blueprint Food Pyramid

I first developed this pyramid back in 2007 as an antidote to the conventional stupidity pyramid. After more research and a few revisions over the years, it serves as a great visual guide to to formulating a nutritious, satisfying, ancestral-inspired diet—free from bad advice and with abundant options to honor personal preference. Visit MarksDailyApple.com or read *The Primal Blueprint* for details.

THE PRIMAL BLUEPRINT FOOD PYRAMID

- Nutritious, satisfying, high-nutrient-value, low-insulin-stimulating foods
- Low carbohydrate, moderate protein, ample nutritious fats
- Flexible choices and meal habits by personal preference
 - Free of grains, sugars, and refined vegetable oils



Perfect Health Food Plate



Image © 2013 PerfectHealthDiet.com

Drs. Paul Jaminet and Shou-Ching Jaminet, both trained in the sciences (astrophysics and molecular biology respectively), were drawn to the ancestral health space by Paul’s successful conquering of chronic illness through dietary transformation. The coauthors of *Perfect Health Diet*, they created the Perfect Health Food Plate to help followers transition sensibly away from nutrient-deficient, inflammatory dietary patterns and reduce their risk of disease. The Jaminets’ concept of “safe starches” was praised for bringing some sensibility and moderation to low-carb eating strategies. Visit PerfectHealthDiet.com for details.

Whole-Foods, Plant-Based Pyramid



This presentation of exclusively plant-based foods depicts numerous colorful, nutritious, high-antioxidant fruits and vegetables. It also honors the many objections to consuming feedlot animal products and processed meats. Restricting nutrient-dense, sustainably raised animal foods from the diet invites criticism, but plant-based eating certainly has a strong following. People with sensitivities to gluten and other antinutrients prominent in grain foods can choose to emphasize fresh produce, nuts, and seeds. Because of the high carbohydrate content and potential difficulty obtaining sufficient protein and nutritious fats with a plant-based approach, there are risks of excess insulin production, low satiety, and consequent difficulty adhering to the diet. In addition, there is a high potential for nutrient deficiencies (especially over the long term) resulting from the exclusion of animal foods.

Carnivore Scores Chart

Carnivore is a niche dietary strategy that has exploded in



popularity recently, particularly among those suffering from nagging inflammatory or autoimmune conditions possibly caused or exacerbated by the consumption of natural plant toxins. A complete restriction of plants in favor of nose-to-tail animal foods is being shown to help heal leaky gut syndrome and promote rapid healing in people who have (often unknowingly) high reactivity to plant toxins. For others, a “carnivore-ish” eating strategy is showing great effectiveness for quick and efficient fat reduction, because meals are nutrient-dense and highly satiating, while being extremely low in carbohydrate. This chart from Brad Kearns and health coach Kate Ouellette-Cretsinger ranks the most nutrient-dense categories of animal-sourced foods and makes suggestions for strategic inclusion of numerous colorful, healthful plant foods that have the least toxicity and most nutritional benefits. Visit BradKearns.com/MOFO or K84Wellness.com for details.

Food Pyramid Venn Diagram (“Pyramids in Perspective”)

This presentation is inspired by a concept presented by Denise Minger in her book, *Death by Food Pyramid*. Her book explains “how shoddy science, sketchy politics, and shady special interests have ruined our health” and offers extensive historical and scientific references. Perhaps the best takeaway from this diagram is the “excluded from all” box. This is the predominant reason why *any* diet that eliminates toxic modern foods will promote fat reduction and increased energy right out of the gate.



The universal agreement that colorful, nutritious plants should be emphasized has long stood on a pedestal above the ongoing diet wars, but even this has been challenged by the carnivore approach, which skyrocketed in popularity in 2019. The rationale that animal foods have the most nutrient density and that plants may not be mandatory (and can even be counterproductive for sensitive folks) has forced many people—including me—to rethink the fundamentals of healthful eating. Granted, most of us may not be highly reactive to

plants, but advocates recommend at least trying a carnivore experiment if you suffer from nagging inflammatory or autoimmune issues. The “carnivore-ish” triangle, which dips slightly into the whole-foods, plant-based shading, makes a concession for occasional consumption of the least offensive plants, such as fruit and starchy tubers.





CARNIVORE SCORES!

Follow this chart to eat smart; plants à la carte

MAXIMUM NUTRIENT DENSITY	GLOBAL ALL-STARS ▶ <small>The world's most nutrient-dense foods (sorry kale, time to bail).</small>	Grassfed Liver <small>(Bonus points: consume raw or medium rare) Superior micronutrient profile, including off-the-charts in vitamin A and vitamin B group.</small>	Oysters <small>(Lightly grilled, broiled, or roasted, never deep-fried) Aphrodisiac properties are validated by the incredible zinc and B₁₂ levels.</small>	Salmon Roe and Caviar <small>Rich in iodine, choline, omega-3 fatty acids EPA and DHA.</small>	
	ANIMAL ORGANS ▶ <small>Reclaim the forgotten ancestral tradition of "like supports like."</small>	Liver plus Bone Broth, Heart, Kidney, Sweetbread, Rocky Mountain Oysters, Tripe <small>Choose grassfed animals.</small>	Organ Supplements (Capsules) <small>AncestralSupplements.com: freeze-dried, 100% grassfed organs (capsules) PrimalKitchen.com: collagen peptides (powder)</small>		
	WILD-CAUGHT, OILY, COLD-WATER FISH ▶ <small>Convenient, affordable, best dietary source of omega-3s.</small>	"SMASH" Family <small>Sardines, Mackerel, Anchovies, Salmon, Herring</small>			
	SHELLFISH ▶ <small>Excellent source of monounsaturated and omega-3 fats. Choose sustainably caught/raised.</small>	Oysters plus Clams, Crab, Lobster, Mussels, Octopus, Scallops <small>Sushi bar fare!</small>			
	EGGS ▶ <small>Healthful fats, choline, B-vitamins, and life-force essence.</small>	Local, Certified Humane and Pasture-Raised <small>Vastly superior to conventional.</small>	Other Eggs: Goose, Duck, Quail, Ostrich <small>Healthier animals; no mass production.</small>		
	RED MEAT ▶ <small>Superior nutritional and fatty acid profile to poultry.</small>	Local or 100% Grassfed <small>Bone-in cuts best.</small>	Other Red Meat: Buffalo/Bison, Elk, Lamb, Venison <small>Healthier animals, no mass production.</small>		



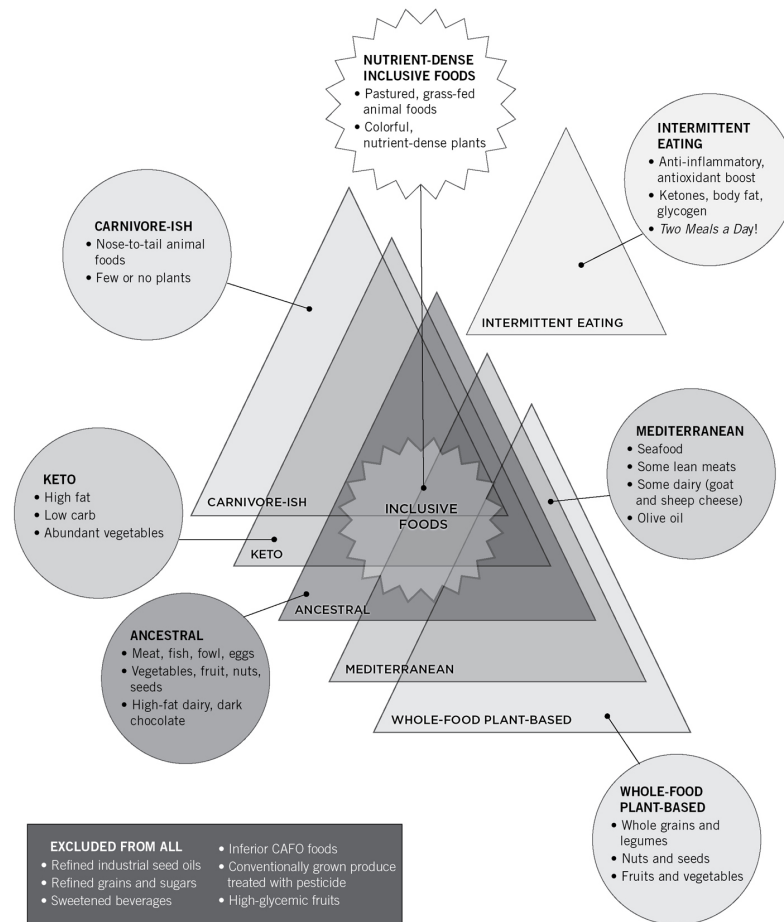
THE STEAK LINE

Emphasize foods above line for maximum dietary nutrient density.

Chicken, Turkey, Pork <small>Inferior nutrient density and fatty acid profile if corn/soy fed.</small>	Local or 100% grassfed/pasture-raised poultry; heritage breed pork								
Raw, Organic, High-Fat Dairy <small>Avoid all conventional, pasteurized, and low- and non-fat products, or if allergic.</small>	<ul style="list-style-type: none"> • Raw cheese (aged, hard, or brie), raw kefir, raw milk • Cream cheese, heavy cream, sour cream • Full-fat yogurt 								
Plant Foods <small>Integrate strategically for recovery/glycogen reloading, to improve insulin sensitivity, optimize thyroid and adrenal function, and enjoy life!</small>	<table border="1" style="width: 100%; border-collapse: collapse; font-size: x-small;"> <tr> <td style="padding: 2px;"> Avocados Heart-healthy monounsaturated fats, huge potassium, high antioxidant, vitamin B6 and vitamin K. </td> <td style="padding: 2px;"> Dark Chocolate Super high in antioxidants, flavanols, polyphenols; choose bean-to-bar, 80 percent cacao or higher. </td> <td style="padding: 2px;"> Fermented Foods Kefir, kimchi, kombucha, miso, natto, olives, pickles, sauerkraut, tempeh; probiotics nourish healthy gut bacteria. </td> <td style="padding: 2px;"> Fruit Choose locally grown, in-season fruits; berries #1 for low glycemic/high antioxidant properties. </td> </tr> <tr> <td style="padding: 2px;"> Honey Choose raw for antioxidant, antibacterial boost. Local honey can help seasonal allergies. </td> <td style="padding: 2px;"> Nuts & Nut Butters Nutritious protein, fatty acids, enzymes, antioxidants, phytonutrients, vitamins and minerals (bradventures.com). </td> <td style="padding: 2px;"> Seaweed Best source of iodine, vitamin B₁₂, selenium, and omega-3. </td> <td style="padding: 2px;"> Sweet Potatoes/Squash High antioxidant, anti-inflammatory, immune-boosting, and support gut health. </td> </tr> </table>	Avocados Heart-healthy monounsaturated fats, huge potassium, high antioxidant, vitamin B6 and vitamin K.	Dark Chocolate Super high in antioxidants, flavanols, polyphenols; choose bean-to-bar, 80 percent cacao or higher.	Fermented Foods Kefir, kimchi, kombucha, miso, natto, olives, pickles, sauerkraut, tempeh; probiotics nourish healthy gut bacteria.	Fruit Choose locally grown, in-season fruits; berries #1 for low glycemic/high antioxidant properties.	Honey Choose raw for antioxidant, antibacterial boost. Local honey can help seasonal allergies.	Nuts & Nut Butters Nutritious protein, fatty acids, enzymes, antioxidants, phytonutrients, vitamins and minerals (bradventures.com).	Seaweed Best source of iodine, vitamin B ₁₂ , selenium, and omega-3.	Sweet Potatoes/Squash High antioxidant, anti-inflammatory, immune-boosting, and support gut health.
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Check out BradKearns.com/MOFO and K84Wellness.com for more great info and guidance.

PYRAMIDS IN PERSPECTIVE



Emphasize Nutrient-Dense Ancestral Foods (and Eat Your Superfoods)—Journal Exercises

- 1. Ancestral foods:** List a few of your favorite foods in each of the following ancestral food categories: meat, fish, fowl, eggs, vegetables, fruits, nuts, seeds, and healthful modern foods (organic high-fat dairy products, high-cacao-percentage dark chocolate). Describe the highest-quality choices and your ideas about where to find them. For example, wild-caught Pacific salmon from Costco; 80–85 percent dark chocolate bars from LillieBelleFarms.com or Askinosie.com; sugar-free, chemical-free wines from DryFarmWines.com.
- 2. Superfoods:** List some ideas for increasing your

consumption of superfoods and list some sources from which you can purchase them.

CHAPTER 3

Intermittent Eating: The Fastest Way to Health

Unlike every other diet you have encountered in your life, the *Two Meals a Day* program centers on fasting rather than on any specific foods, macronutrient ratios, or meal patterns. Fasting has profound anti-inflammatory and immune-boosting effects. It spurs the production of internal antioxidants such as *glutathione*, known as the “master antioxidant”; it optimizes the internal cellular detoxification process called *autophagy*; it enhances your all-important mitochondrial health; and it enables your brain and body to burn fat and ketones—vastly cleaner fuel sources than the glucose you burn after a high-carbohydrate meal. In these areas, fasting blows away the benefits offered by any superfood smoothie, magical jungle berry, exotic fresh-squeezed juice, or expensive detox powder or pill.

Fasting is simple, free, and easy to maintain as your baseline dietary philosophy. If you associate skipping meals with deprivation and suffering, please understand that although this may be true in a carbohydrate-dependency paradigm, it’s not the case when you possess metabolic flexibility. The intermittent-eating approach is always aligned with your natural signals of hunger and satiety and should never feel like an ordeal. You will always progress at your own pace, and you can expect to make steady progress over time, to the point where something unthinkable today (such as

a twenty-four-hour fast) is carried out effortlessly when you have developed sufficient metabolic flexibility.

The best way to get started with an intermittent-eating lifestyle is to simply wait until WHEN (when hunger ensues naturally) to eat your break-fast meal every day. If that doesn't work for you, you can try numerous other intermittent-eating strategies that might be a better fit for your daily work, exercise, and family routines (see [chapter 5](#)). The objective is to spend as many hours as possible in a fasted state to optimize your metabolic, immune, and cognitive functioning as well as to reconnect with your long-lost hunger and satiety signals, which have been compromised by overeating. The insight that no food or supplement will have more of a health boost than fasting should dramatically simplify your approach to healthful eating and come as a huge relief. I know it has for me.

My insatiable quest over decades to find the latest, greatest diet, superfood, or supplement and determine the best mealtimes and food combinations for performance and recovery was an arduous chore. Propaganda and flawed science compelled me to follow the conventional stupidity of a grain-based diet, which, unbeknownst to me, triggered systemic inflammation, destroyed my gut lining, and trashed my immune system. My life became extra stressful when I couldn't follow my exact plan of food choices and meal patterns, especially when traveling. I spent untold thousands of dollars on the "best" foods and supplements, trying to get an antioxidant or immune boost that can be had for free when you simply skip breakfast.

When you focus on fasting to develop metabolic flexibility, the pressure to conform to a strict meal plan or program is off. You can add a smiley face to your journal when you miss a meal instead of feeling like you have fallen behind on your nutritional requirements or set yourself up for an afternoon energy crash. If you've felt the pressure of the ketogenic approach, in which daily carb intake must be strictly limited, you can enjoy a little more flexibility at mealtimes, because

aggressive fasting is a potent catalyst for ketosis. Ben Greenfield describes enjoying the best of both worlds when he engages in extended fasting, but he also enjoys celebratory evening meals with his family that feature an assortment of nutritious carbohydrates and even some carefully crafted indulgences. During his fasting periods, Ben enjoys the aforementioned autophagy and antioxidant benefits as well as the anti-inflammatory and cognitive benefits of being in ketosis. His evening meals ensure that he restocks muscle glycogen for recovery and guards against the hormonal stress of heavy training combined with heavy carb restriction. He enjoys life without stressing about dietary restrictions.

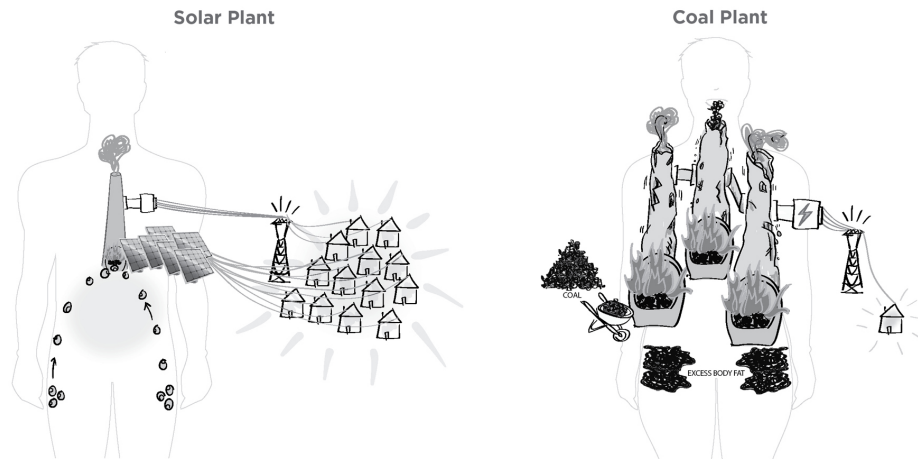
From this point forward, you can reject the inconvenient and unhealthy food-is-fuel approach to life. Instead, you can adopt the ethos that eating is one of life's greatest pleasures and choose the cleanest, tastiest, most nutritious foods you can find. You can bring mindfulness and gratitude to mealtimes instead of "hangry" emotions. You will be more in tune with your body's natural rhythms and can honor and appreciate your hunger and satiety signals without experiencing that all-too-familiar deep-seated fear of running out of energy later if you don't stuff your face during meals or carry a bunch of snacks around with you as you go through your day.

Instead of defaulting to convenient processed breakfast foods during time-crunched mornings, you can take comfort knowing that heading off to work fueled by only water, coffee, or tea is perfectly healthful. Fasting is freeing: travel can become a great opportunity for extended fasting: no more traipsing around the airport or scouring the roadside mini-mart for something decent to eat or futilely searching for foods that fit your current meal plan. Whenever you feel the slightest bit run down (scratchy throat, stuffy nose or head, elevated temperature), fasting is the best way to enhance your immune response to infection. The old wives' tale goes, "Starve a cold, feed a fever," but a more scientifically validated approach would be "Starve a cold, and all other illnesses." Leading ketogenic diet researchers are publishing studies of great

promise in which they starve cancerous cells (which preferentially feed off glucose more than healthy cells do) by means of a ketogenic dietary strategy. All animals intuitively know the immunity benefits of fasting: you may have noticed your dogs and cats ignoring their food bowls when they're under the weather. While extended fasts of seventy-two hours or more have been shown to boost stem cell activity, cleanse organs of inflamed, dysfunctional cells, and regenerate white blood cells for an incredible "reset" effect, even routine short-duration fasting (e.g., a daily pattern of a sixteen-hour fast followed by an eight-hour window in which meals are consumed) will deliver amazing anti-inflammatory, antiviral, autophagy, and fat-loss benefits.

A key perk of fasting is that it boosts mitochondrial functioning, which many experts assert is one of the most prominent indicators of overall health and disease prevention. Mitochondria are the energy-producing power plants inside most of your cells. They convert oxygen and food calories into adenosine triphosphate (ATP), which powers the cells' metabolic activities. When you deplete your cells of energy, whether by fasting or by conducting a strenuous workout, it triggers a process called *mitochondrial biogenesis*—the manufacturing of new mitochondria as well as making existing mitochondria more efficient at using oxygen. You become like a solar power plant, generating a reliable source of clean-burning fuel (stored body fat and perhaps ketones, as needed) all day long. By contrast, eating too many meals and making dietary carbohydrates your primary source of energy results in inflammation, oxidative damage, and glycation. You are more like a coal plant spewing smoke and needing to constantly shovel more fuel (i.e., high-carb snacks and meals) into the fire.

METABOLIC FLEXIBILITY VS. CARBOHYDRATE DEPENDENCY



Essentially, fasting allows you to stimulate ancient pathways of cellular renewal and regeneration. Art De Vany, PhD—Paleo movement pioneer, author of *The New Evolution Diet*, and an athletic marvel in his eighties—likes to say: “We are most human when we don’t eat.” Of course you need to eat to provide caloric energy for a busy, active lifestyle, build and maintain lean muscle mass, and support assorted other functions in the body, but the magic happens when you follow a feast-and-famine pattern of metabolic flexibility and efficiency. We have the magnificent, genetically hardwired ability to store, manufacture, and burn various forms of energy to enjoy active, productive lifestyles—regardless of the type of calories we ingest or how frequently we ingest them. Our closed-loop functionality evolved by necessity to survive the rigors of primal life, when there was no guarantee of a “next meal.”

Appreciating the elegance and efficiency of our evolutionary design includes acknowledging that humans are hardwired to overeat (particularly sugar) and store fat! There was no such thing as “three squares” ten thousand or two hundred thousand years ago. There was either food or no food, with likely tremendous fluctuation. It makes perfect sense that we evolved a brain-based mechanism that encouraged us to overeat when food was readily available and then be able to conveniently store this energy in our centers of gravity—hips, thighs, abdomen, and rear end—for future access when food was scarce. For example, our ancestors typically gorged on

fresh berries and other ancient wild fruits and starchy vegetables during short summertime ripening seasons, thereby adding some extra body fat that would be used for fuel over the long, dark, cold, calorically scarce winter ahead. That's good news for our ancestors' survival, and it's good genetics to have evolved a sweet tooth. However, our ancestral pattern of seasonal consumption of wild, fibrous fruit is a far cry from consuming giant blackberries from the big-box store throughout the winter or starting your day with a green smoothie filled with more carbohydrate calories than our ancestors would eat in a day—or an entire week during wintertime. What's more, climate-controlled indoor environments and artificial lighting, which extend our days year-round, mean there is no such thing as a cold, dark, calorie-scarce winter today. In fact, from a hormonal perspective, our highly inactive, temperate, well-lit modern lifestyle locks us into the summertime carb-craving fat-storage mode twelve months of the year. Ultimately, there is little impetus for us to access and burn the abundant and clean-burning source of energy we carry around every day. Instead, we hardwire the hormonal processes that make us fat, foggy, fatigued, depressed, and ultimately diseased.

Today's obsession with the deeply flawed calories in, calories out model of metabolism ignores the genetic mechanisms that influence how the body burns and stores caloric energy. By resolving the many modern disconnects from our genetic expectations for health, it's possible to generate different hormonal signals and reclaim our *Homo sapiens* birthright to become lean, fit, strong, fat-burning beasts. We'll cover an assortment of lifestyle objectives in this book (exercise, sleep, stress management, therapeutic cold exposure, and others), but the biggest bang for your buck will come from fasting, because our modern hyperinsulinemia diet is arguably the most health-destructive genetic disconnect of them all. While the return on your fasting investment is assured, it's going to take some work and time to undo decades of ingrained food-is-fuel habits and counter the powerful influence of social conventions.

Beware of “Liquidating Your Assets”

If you attempt fasting and carb restriction while you are still carbohydrate-dependent, you are destined to struggle rather than succeed. This is a disturbingly common occurrence among people who have jumped on the ketogenic diet bandwagon or who engage in habitual crash dieting for desperation weight loss. When dietary carbohydrates have been your primary source of energy for decades, it's difficult for the body to suddenly recalibrate and start melting off body fat as promised in advertising propaganda. Instead, skipping a meal or cutting carb intake can easily cause you to feel tired, hungry, and moody. Without carbs, your bloodstream is lacking the usual steady drip of glucose, and your body isn't yet acclimated to burning stored body fat or making ketones.

If you struggle out of the gate with fasting or carb restriction, you just need to slow down the pace of your dietary transformation and allow fat-burning genetic functions to take hold in due time. If you plow ahead in crash-diet mode, the picture can start to look bleak. The energy dip caused by hypoglycemia is perceived by your primal genes as a matter of life and death, and it triggers a cascade of powerful hormonal and metabolic fight-or-flight processes, including a spike of the predominant stress hormone, cortisol. Cortisol orchestrates a key survival mechanism called *gluconeogenesis*. This is an emergency process that strips your muscles of certain amino acids, sends them to the liver to be converted into glucose, and delivers quick energy to your brain and muscles. When fight-or-flight stimulation becomes chronic, you suffer from suppressed immune functioning and system-wide inflammation, and lean muscle mass is broken down to make glucose.

Tommy Wood, MD, PhD, a pediatric research physician at the University of Washington and past president of the Physicians for Ancestral Health organization, calls chronic fight-or-flight stimulation “liquidating your assets.” Overly stressful exercise patterns, toxic relationships, dysfunctional workplace dynamics, personal and family crises, and crash

diets are all examples of chronic stressors that you can cope with for a short time but that eventually lead to burnout. By contrast, an acute cortisol spike is fantastic when you toe the starting line for a race, take the stage to give an important presentation, conduct a sprint workout, or experience any other hormetic stressor—one that is optimally brief but delivers a net positive benefit.

Crash dieters typically feel great for a while. They have plenty of energy from gluconeogenesis and probably lose some body weight as well. This loss comes from a reduction in water retention and cellular inflammation and perhaps even a little fat loss, thanks to eating less food. Unfortunately, under these conditions, the fight-or-flight mechanism (designed to combat short-term, life-or-death stressors only) will eventually wear out. The result is the wholly modern condition known as burnout. The typical result of a crash diet is exhaustion, intense cravings for sugar, and an eventual return to the same body composition you had before the fight-or-flight ordeal.

The way out of this familiar trap is to unlock the vast resource of clean-burning energy that is stored body fat. Triggering the genetic mechanisms that favor fat burning (instead of carbohydrate dependency) best happens through not just diet modification, but comprehensive lifestyle change. It starts with minimizing insulin production and includes increasing all forms of general everyday movement, performing brief, high-intensity workouts, getting adequate sleep, and avoiding the aforementioned chronic stressors. Once the proper foundation is laid (ditching toxic modern foods and emphasizing nutrient-dense ancestral foods), you can establish a comfortable routine featuring increased fasting and eating two meals a day or less. On the other hand, if you are embarking on your *Two Meals a Day* journey amid a hectic, high-stress lifestyle, reducing meal frequency and cutting carbs is likely going to add more stress to an already unbalanced situation.

There are many ways to arrive at burnout besides ill-advised crash dieting. One particularly disturbing trend among

extreme health and fitness enthusiasts with high motivation levels and lofty goals is pairing carb restriction with an exhausting exercise routine. A pattern of overly stressful workouts leaves you glycogen-depleted again and again, requiring massive carbohydrate consumption to refuel for the next exhausting workout. Even with a six-pack to show for your CrossFit gold star attendance or running high mileage on the road, you can still be locked into an inflammatory, carbohydrate-dependent lifestyle. If you clean up your diet but continue to engage in an extreme training program, guess where you are going to get the extra carbs you need for these workouts? That's right: liquidating your assets!

Dr. Craig Marker is a psychology professor at Mercer University in Atlanta and an elite strength coach whose recommendation of HIRT (high-intensity repeat training) instead of the more popular but more stressful HIIT (high-intensity interval training) is helping revolutionize long-standing high-intensity training strategies that are not only flawed but also dangerous. Dr. Marker explains that serious physiological damage can result from workouts that are too stressful—e.g., doing too many work efforts that last a bit too long, with rest intervals that are too short, in workouts that last too long and are repeated too frequently with insufficient recovery time between them. He adds that as you try to get through ten repeats of two-minute sprints on your Peloton screen or at the local running track, “your physiology fights to keep up by breaking down the basic components of your cells—your ‘A-frames’—through chemical reactions called *disassembling* and *deamination*. This results in ammonia toxicity in the bloodstream (especially harmful to brain cells), a degradation of mitochondria, diminished ATP energy production, even at rest, and a disruption in aerobic metabolism (fat burning).”

Translation: you feel terrible for twenty-four to forty-eight hours after challenging workouts, then stabilize just enough to destroy your A-frames all over again at the next workout! Novice athletes are vastly more vulnerable to experiencing this

cellular breakdown than elites. In a perverse twist to the story, Dr. Marker mentions that a common side effect of extreme overtraining is weight loss—primarily from the catabolization of lean body mass. Nevertheless, fitness freaks get kudos from their peers for looking lean, but it’s because they’re destroying their bodies on the inside. Dr. Marker describes this dynamic as just plain “sick!”

To effectively pair cleaning up your diet with an improved training regimen, first try to make next-day muscle soreness a rare occurrence instead of something that happens routinely. Second, strive to avoid the hallowed “muscle burn” that has come to characterize an effective workout in fitness pop culture. Yuri Verkhoshansky, the late Russian sports scientist credited with inventing plyometrics, among numerous other innovations, used a sink analogy to describe how to manage lactic acid accumulation during workouts. As soon as the sink is about to overflow, you must shut off the faucet and let the water drain—back off the intensity so your body can efficiently buffer that lactic acid and not prompt the aforementioned process of cellular destruction. Dial your maximum explosive efforts back to 93 percent perceived exertion instead of 98 to 100 percent. Do sprints in the sweet spot of ten to twenty seconds, and take what Dr. Marker calls luxurious rest intervals, lasting around five times as long as your sprint (see [chapter 5](#)).

Low-Carb Flu Who?

You may have heard of the so-called low-carb flu, which has been deemed a rite of passage that must be endured when transitioning from carbohydrate dependency to efficient fat burner. Symptoms may include lethargy, headaches, brain fog, moodiness, appetite swings, and sluggish workouts that occur in conjunction with an abrupt reduction in your usual dietary carbohydrate intake. While you can expect some energy lulls and appetite spikes during the first few weeks of upregulating your fat-burning genes, your journey should absolutely not be

a suffer-fest. Any symptoms of discomfort should be mild and easily alleviated by a nutrient-dense meal or nutritious snack. If you start having some rough days that affect your mood or work productivity, you should immediately revise your approach.

The most likely cause of the low-carb flu is metabolic damage from decades of high-carb, high-insulin eating, especially if you have a history of yo-yo dieting. The best strategy for avoiding the “flu” is to slow down your rate of carb restriction so your body can adjust. A grain-based, high-carbohydrate diet delivers around 250 to 500 grams of carbs per day, depending on your burn rate and your penchant for junk food. This also delivers between one thousand and two thousand calories, which can easily comprise more than half your total daily intake. By contrast, the keto template mandates that you consume 50 grams of carbs or less per day. Because the brain alone burns around 120 grams of glucose per day (nearly 500 calories!), when you aren’t keto-adapted extreme carb restriction can easily trigger brain fog.

If you are trying to maintain your usual ambitious exercise program, and your muscles are used to burning carbs, you may experience the double whammy of brain fog and sluggish workouts. Instead of suffering, be sure to consume enough colorful, nutrient-dense carbs such as fresh fruit and starchy tubers to give your brain and muscles the energy they need to thrive. As your metabolic flexibility improves, it will become easier to skip meals, stabilize energy and appetite all day, perform well and recover quickly from workouts, and not have that desperate need for a snack or meal to keep the flame burning.

Another potential cause of the low-carb flu is a deficiency in sodium and other important minerals and electrolytes. This is a common problem, because ditching processed foods results in lower inflammation and less water retention throughout the body—and thus less sodium is retained in your cells. Furthermore, your dietary sodium intake drops when you eliminate processed foods that are high or extremely high in

sodium. Less puffiness and less junk food are both good things: you just need to make a concerted effort to rebalance your sodium levels. Active low-carb and keto enthusiasts can benefit from consuming an additional five to ten grams (one to two teaspoons) of pure, unprocessed, noniodized mineral salt or ancient sea salt per day. Potassium and magnesium are also easily depleted when you transition to a low-carb diet, so emphasize foods or consume supplements rich in these electrolytes. This is especially important if you are an athlete who sweats frequently. Eat avocados for potassium, and use a transdermal magnesium spray at night before bed. I'll give you additional pro tips in [chapter 7](#).

One strategy for steering clear of the low-carb flu is to make a deliberate effort to consume more nutrient-dense foods in general, because you might not be eating enough during your transition. The high satiety and deep nourishment provided by real foods, combined with lower insulin production and decreased hunger and cravings, will likely result in you needing to eat fewer calories to feel sated than you needed in the carbohydrate-dependent paradigm. Your increased metabolic efficiency may prompt a temporary compensatory reduction in your metabolic rate, which can make you feel sluggish when you try to sustain your usual exercise routine and hectic daily pace. So Dr. Tommy Wood counsels high-calorie-burning athletes transitioning out of carbohydrate dependency to eat as many nutritious calories as they can without increasing body fat. "I'll review an athlete's food journal listing two eggs and half an avocado for breakfast," Wood says. "Come on, man—eat a real breakfast! Make it six eggs and the entire avocado!" Over time, as your closed-loop system gets further refined, you will adjust to your new metabolic efficiency and be able to achieve peak cognitive and physical performance on fewer calories than you needed when you made the transition to fat-adapted athletic training.

If you are a highly motivated type, eager for quick and dramatic results, have patience and faith that this process will

work for a lifetime and does not require suffering or “liquidating your assets.” You don’t have to worry about caloric restriction or exhaustive workouts or wonder whether your next beach-body binge program is going to work. All you need to do is respect your natural hunger and satiety signals, and you will achieve and maintain your personal ideal body composition. That said, let’s also acknowledge that the hype and glitz of the fitness industry and social media put too much emphasis on aesthetics and not enough on being healthy and feeling great. When it comes to body composition, understand that results may vary according to your genetic predisposition to store fat, how much metabolic damage you have accumulated over decades of high-carb eating (and need to recover from with a sustained period of lower insulin production), and, to a lesser extent, your fitness level. Focus on making a sustained effort to feel and look your best instead of trying to measure up to airbrushed images on social media. Don’t compare your rate of progress to that of others or obsess about arbitrary timelines and benchmarks.

FEMALES AND FASTING

The “liquidating assets” concept can be of particular concern to females, because the act of dropping excess body fat can run counter to the female body’s most prominent natural and ancient genetic drive, which is to maintain reproductive fitness. It’s a popular belief among experienced low-carb enthusiasts that, in general, males respond better to extended fasting and strict ketogenic patterns than females. A man dropping down into single-digit body fat is likely enjoying a boost in adaptive hormones such as testosterone and growth hormone (unless he’s overtraining). A woman who goes deep into fasting and/or extreme exercise in pursuit of abs of steel may increase her risk of health disturbances such as amenorrhea,

hypothyroidism, insomnia, declining workout performance, mood and hunger swings, and chronic fatigue. These risk factors are particularly high in women who are already lean and fit and seek marginal improvement to attain high-risk six-pack status. By contrast, women who are overfed, overweight, prediabetic, or have disease risk factors have a greater imperative to adopt the *Two Meals a Day* lifestyle. For them, there's a bigger potential upside and zero downside health risks.

The key takeaway here is you need to do this right. Everyone can benefit from fasting, especially in the age of overeating and hyperinsulinemia. To enjoy maximum benefits with minimal risk as a female, you should be in exceptional general health before beginning your *Two Meals a Day* journey—body fat under 25 percent, normal results on blood tests, and basic fitness competency. Along the way, be vigilant to avoid the pain and suffering that we typically associate with lifestyle transformation. This means paying close attention to hunger signals at all times, and eating delicious, nutrient-dense meals to the point of complete satisfaction every day. No running around feeling hungry and pushing yourself to endure your hectic daily schedule with insufficient energy.

Optimizing Your Carbohydrate Intake

If you are trying to reduce excess body fat, your strategy is straightforward: ditch the Big Three, unlock your fat-burning potential, and progress toward a *Two Meals a Day* lifestyle. After developing a high level of metabolic flexibility, you can then engage in fasting and carb restriction in order to drop excess body fat at a steady and comfortable rate until you reach what you determine to be your ideal body composition. You can enjoy plenty of colorful vegetables, but you must

make fat your primary energy source through fasting (burning stored body fat) and eating meals that are high in natural, nutritious fats. It's not necessary to go looking for additional carbohydrate calories in the name of eating macronutrient-balanced meals—in fact, you don't need to look for extra carb calories at all!

You don't need to go looking for extra protein, either, which is contrary to the centerpiece of many gimmicky weight-loss diets. Because protein is the macronutrient most essential for survival, we have evolved finely tuned genetic mechanisms to ensure that we consume sufficient protein for basic health maintenance. If you underconsume protein, you'll feel terrible. You'll become emaciated and experience intense cravings for high-protein foods to correct what your genes perceive to be a matter of life and death—which it technically is if you were to continue starving yourself. On the flip side, it's difficult to overconsume protein because it is extremely satiating. You can easily go overboard on ice cream pints, but it's more difficult to do that with scrambled eggs and grass-fed steak.

If you are humming along, intermittently eating nutrient-dense foods and trying to drop some fat through carb restriction, at times you may experience afternoon energy dips or strong cravings for carbs. If the craving is legit—that is, not influenced by emotions or boredom—go ahead and indulge. Paying attention to real cravings is part of honoring your natural appetite and being metabolically flexible. I occasionally have carb cravings in the twenty-four to thirty-six hours after an intense workout, but at other times I don't. You gotta go with the flow.

When your body is calling for carbs, reach for excellent choices such as fresh seasonal berries and starchy tubers (sweet potatoes, beets, pumpkins, squash, zucchini). Quinoa and wild rice are also popular options among ancestral-inspired low-carb eaters. Quinoa is technically not a grain but a chenopod—a member of the beet and spinach family. It's gluten-free and a complete protein, with all nine essential

amino acids. Wild rice, too, is technically not a grain but an aquatic grass. It has an impressive nutritional profile—no gluten or other plant toxins—and is high in protein. Other great options for supplemental carbs are the incidental carbs present in high-protein and high-fat foods, including nuts, seeds, and their derivative butters as well as high-cacao-percentage dark chocolate.

Don't worry if you depart from your fat-loss plan for a day here and there. If, for whatever reason, you indulge in some carbs, get back on track the next day and trust that your body composition will improve over time as you adhere to the big-picture principles of the *Two Meals a Day* program. Once you drop excess body fat and stabilize at your ideal body composition, you may even be able to relax your standards a bit if you feel like enjoying more of your favorite nutritious carbs or having a homemade high-carbohydrate dessert once in a while. Remember: your body has an assortment of powerful homeostatic drives that push you to a set point based on your genetics and your historic pattern of insulin production. Initially shedding excess body fat is challenging: you have to align your hunger and satiety signals, test the limits of your fasting capabilities, and at times persevere through hunger pangs for thirty to sixty minutes. If you have lofty ambitions, you can implement some advanced strategies that I'll discuss in [chapter 7](#). Once the excess weight is off, though, it will be easier to maintain your new weight, even when you occasionally increase carb and caloric intake or reduce the amount of exercise you get.

If you are a high-calorie-burning exerciser or laborer, there are additional parameters to consider when dialing in to your ideal carb intake. While numerous high-profile endurance athletes and some strength and power athletes have made remarkable transformations and become full-on ketogenic performers, the reality for many people is that restricting carbs has the potential to interfere with workout performance and recovery. This is especially the case for people living high-stress lifestyles, who are at risk of liquidating their assets;

females who are super fit; and people recovering from decades of metabolic damage, who require more time to build metabolic flexibility. Mind you, this doesn't mean that living a high-performance lifestyle compromises your path to metabolic flexibility. In fact, it means that you can achieve it even more precisely by paying close attention to the energy demands that your high-performance lifestyle dictates.

Targeting additional carbohydrate intake before and/or after ambitious workouts has been effective for many low-carbohydrate peak performers. This is especially true if you possess metabolic flexibility and don't desperately rely on carbs to keep your brain and muscles functioning all day long. Some extra carbs can give your muscles a performance boost (especially during explosive efforts) and help quickly replenish depleted glycogen after workouts. Besides, if you have just completed an intense or prolonged glycogen-depleting workout, your appetite hormones will likely send a powerful signal to your brain to eat, and often overeat, in the interest of replenishing your glycogen stores right away. As Dr. Cate Shanahan says, "When the glycogen suitcases are open, your liver and muscle storage depots take priority." When carbs have a place to go, you don't get the undesirable insulin spike that leads to energy lulls, mood and appetite disturbances, excess body fat, and disease patterns.

The idea of having empty suitcases (either because of fasting or strenuous workouts) is important to appreciate amid the frequent commentary about the destructive effects of excess carb intake and hyperinsulinemia. Carbs and insulin are only problematic when you disturb homeostasis, so if you produce an optimally minimal amount of insulin over your lifetime—just enough to deliver glucose, amino acids, fatty acids, and other nourishment to tissues and organs throughout the body and just enough to regulate enzyme activity and tightly regulate blood glucose—you are doing it right. It's important not to stress the delicate hormonal mechanisms and develop insulin resistance. The term *insulin sensitivity* describes the desirable state of cells being highly sensitive

when insulin comes knocking with a delivery of nutrients for the empty suitcases.

Unfortunately, many people who are high calorie burners also sport excess body fat, despite the fact that they train for ten or even fifteen hours a week. The overwhelming reason for this is a historical pattern of producing too much insulin. As you learned from the discussion about compensation theory (see [here](#)), you cannot exercise your way out of a bad diet. If you are struggling to drop excess fat despite a devotion to exercise, you are going to have to cut carbs, especially nutrient-deficient grains and sugars and the performance drinks, bars, and gels that are enjoyed to egregious excess by serious exercisers. However, your first order of business is to screen for any overly stressful exercise patterns that promote carbohydrate dependency. If your mood, energy, cognitive functioning, immune functioning, and overall enjoyment of life seem to be hindered (rather than enhanced) by your workouts, you are in an overstress pattern. When this happens, you must take immediate and dramatic corrective action to reduce the degree of difficulty of your exercise regimen. If you insist on continuing with exhausting, glycogen-depleting workouts, attempts to reduce dietary carb intake are going to result in the dreaded liquidation of your assets.

If you are training sensibly, on the other hand, your next mission is to completely eliminate the sugars and grains that spike insulin and provide no nutritional benefits. Forget about dropping body fat for a moment: let's be clear that even if you are a lean, mean athletic machine, there is never any justification for consuming inflammatory, nutrient-deficient, insulin-stimulating carbohydrates. While the stress load of devoted athletic training elevates your nutritional needs in comparison to those of the sedentary dude in the next cubicle, that doesn't give you permission to eat whatever you want. Your dietary indiscretions may not show up on your waistline just yet, but bad stuff is happening inside your body when you replenish with Slurpees instead of sweet potatoes. For one thing, sugar promotes inflammation and oxidative stress. If

you're trying to recover from a workout that generates its own inflammation and oxidative stress (desirable, in the case of a workout), nutrient-deficient carbs are going to hinder your recovery. You need to refill your tanks, to be sure, but the more you can stay away from junk and leverage the phenomenal anti-inflammatory and antioxidant benefits of fasting and nutrient-dense ancestral foods, the more quickly you will recover from hard training.

If you already maintain an ideal body composition, you can try the Dr. Tommy Wood strategy of eating all the nutritious carbs you desire to the point of adding a bit of body fat. Should this occur, you can dial back your carb intake a bit, remove that unwanted pound or two or three, and get back into your groove. If you are captivated by the highly touted benefits of being in ketosis, or if you want to get down into single-digit body-fat territory as a male (a super-cut six-pack), or get below 15 percent body fat as a female (tight and toned, with visible musculature, even throughout the thighs and midsection), you can try to minimize carbs by following the commonly cited keto guidelines of fifty grams of carbohydrates per day or fewer. However, you must be sure you are training correctly—not the slightest whiff of overdoing it—and eating plenty of nutrient-dense, high-satiety meals.

**FASTING FOR PEAK PERFORMANCE AND
QUICKER RECOVERY? WELCOME TO THE
NEXT FRONTIER OF ENDURANCE
PERFORMANCE**

Ultrarunner Zach Bitter is a low-carb and carnivore advocate who broke the world record for the 100-mile run with a time of eleven hours, nineteen minutes in 2019. This is a stunning pace of six minutes and forty-eight seconds per mile—running a sub-three-hour marathon back to back to back to

back! Bitter reports that when he switched to a clean, low-carbohydrate eating pattern, he would awaken the morning after challenging long-distance training sessions with noticeably less joint stiffness and swelling.

Taking low-carb eating to the extreme is amateur athlete Dude Spellings of Austin, Texas. At age forty-nine, Spellings completed the epic Grand Canyon rim-to-rim-to-rim excursion—nearly fifty miles and twelve thousand feet of elevation gain—in fifteen hours. He started out fasted, remaining in a ketogenic state, and consumed only a few hundred calories of high-fat snacks during the entire journey. At the finish line, while his running partners feasted on hot pizza, Spellings decided to continue fasting overnight to help reduce inflammation and promote muscle repair. In the morning, he reported feeling fresher and less sore than he had thirteen years earlier, when he did the same crossing (and took two hours longer) as a high-carb athlete. Another historic human endurance and metabolic accomplishment was achieved in May of 2020 when Utah ultrarunner Michael McKnight completed a solo 100-mile run in the exceptional time of eighteen hours, forty minutes without consuming any calories—just water and electrolyte pills!

While these extreme performances may be hard to relate to for the average person trying to juggle health and fitness ambitions with a busy lifestyle, they offer a glimpse into the future of the way even extreme fitness goals can be pursued without compromising health. The days of pairing spin class with Jamba Juice are over. It's time to replace the "If the furnace is hot enough, anything will burn" mentality with the pursuit of metabolic efficiency—not *needing* sugar to perform, even for long-duration efforts. This movement will strike a blow to the

multibillion-dollar sports nutrition industry, but its importance is underscored by the disturbing observation that even extreme fitness enthusiasts routinely carry extra body fat. This is a clear sign of a disconnect between behaviors and goals. One study revealed that 30 percent of the participants in the Cape Town Marathon (in South Africa) were above the healthful body-mass-index range. This is the same percentage as the world's population in general! In my decades hanging around triathlon race venues and fitness clubs, I have observed this phenomenon to a shocking extent. I proclaim it to be the worst-kept secret in the fitness industry. Granted, getting strong and aerobically fit is vastly superior to being sedentary, but it would be nice to enjoy a maximum payoff in aesthetics and performance (most every sport and fitness challenge rewards low body fat and a high strength-to-weight ratio) for all that hard work, wouldn't it?

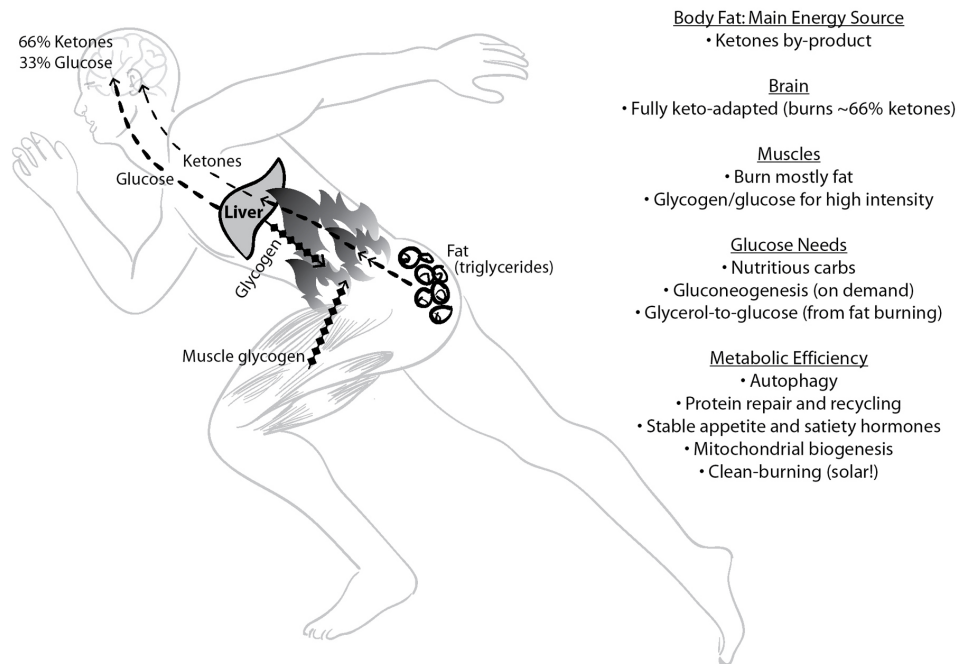
Two Meals a Day Transcends the Diet Wars

For the past fifteen years I've been promoting an ancestral-style eating pattern in my books, blog articles, live events, and media appearances. I'm a huge fan of primal, Paleo, keto, and, more recently, nose-to-tail carnivorous eating. Moral and philosophical arguments aside for a moment, I don't recommend a whole-food, plant-based (a.k.a. vegetarian or vegan) diet because it excludes a huge percentage of the most nutritious foods on the planet. Since I ditched grains, sugars, and refined oils almost twenty years ago and reclaimed my health, I've been experimenting with a variety of nuanced strategies that are always ancestral-inspired.

Today, my dietary centerpieces are meat, fish, fowl, eggs, and certain vegetables. I enjoy moderate amounts of nuts, seeds (and their derivative butters), organic high-fat dairy products (cheese, cottage cheese, full-fat yogurt, raw kefir),

fresh berries in season, and 80–85 percent cacao dark chocolate (which my coauthor, Brad, mails me and insists that I try). I indulge in some very well-chosen treats now and then (e.g., gelato during an Italian vacation or homemade cheesecake at a birthday party). Occasionally, I'll consume some grains as well—a carne asada street taco wrapped in a corn tortilla, a slice of warm homemade bread drowned in olive oil and balsamic vinegar, or a sushi roll with white rice. I'm too busy enjoying my life to track anything—unless I have to for a dietary analysis presentation in a book or blog post! As I've mentioned previously, my diet is a closed-loop system. Because of the excellent metabolic flexibility I've developed over the years, I can essentially generate energy independently from my calorie intake. And because I don't worry about obtaining my hour-to-hour energy requirements from food, I am able to contemplate it purely for pleasure instead of as an obligatory fuel. Granted, after a seven-day fast my tune might change a bit, but I think you get the point.

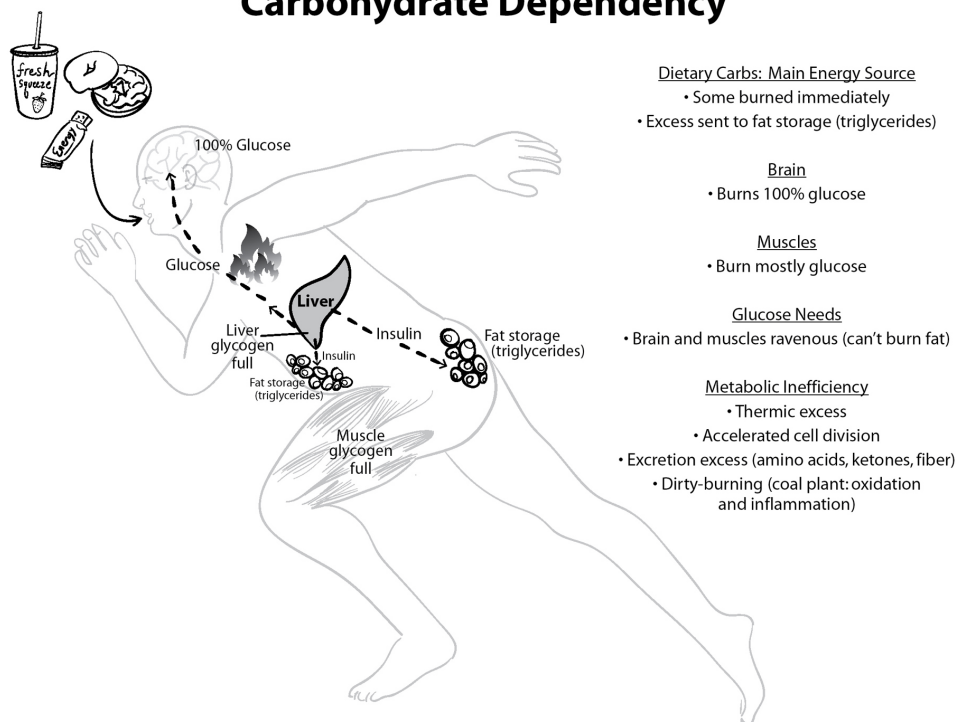
Metabolic Flexibility Closed-Loop System



Regardless of your eating style, there are benefits to the two-meals-a-day approach. That said, if you are committed to

a whole-foods, plant-based diet, I offer a few suggestions. First, consider expanding your diet to include fish and animal products (eggs, cheese) in order to improve nutrient density and ensure you are getting enough highly bioavailable protein and other important nutrients such as vitamin A, vitamin K₂, and choline, which are largely absent from plant foods. For example, a vegan would have to consume foods rich in beta-carotene, a plant-sourced precursor to vitamin A, and then execute a complex chain of biochemical reactions within the body to convert it to retinol, the fully formed state of vitamin A. Dr. Paul Saladino cites research suggesting that it takes twenty-one units of beta-carotene to equal the biological value of one unit of retinol. That's a lot of carrots and sweet potatoes to measure up to one serving of beef liver, the vitamin A king. Second, because as a vegetarian or vegan you consume a greater proportion of your daily calories from carbohydrates by default, you need to be sure to obtain sufficient fats from olives, coconuts, avocados, and their derivative oils. Third, you need to be sure that refined grains and sugars don't contribute to your already significant carbohydrate intake.

Carbohydrate Dependency



Beyond logistical concerns, science is now showing that

genetics have a huge influence over whether you can thrive on any particular restrictive diet. Denise Minger is a recovering raw-food vegan whose namesake blog is lauded for its well-researched and often withering critique of popular diet trends. Minger describes numerous genetic attributes that can make plant-based eating a challenge, if not downright destructive to health. For example, nutrient deficiencies or common mutations in the *BCMO1* gene can compromise vitamin A conversion from plant foods, which isn't easy in the first place. An estimated 45 percent of people are "low responders" to beta-carotene. Other research identifies mutations in the *PEMT* gene that can promote choline deficiency. Genetic or lifestyle-related deficiencies in specific bacteria in your gut can inhibit your synthesis of vitamin K₂. If you have relatively few copies of the widely discussed amylase-coding gene *AMY1*, the starches you consume will more likely be stored as fat instead of metabolized.

On the other side of the debate, critics of animal-heavy diets cite research stating that certain genotypes respond unfavorably to an increase in dietary saturated fat intake. But avoiding excess animal fat is easily managed by emphasizing monounsaturated fats such as coconut products, olives, olive oil, and avocados and minimizing consumption of bacon and butter.

Beyond your particular eating style, we all need to broaden our perspective to emphasize reducing meal frequency. In *The Obesity Code* and his other books, Dr. Jason Fung strongly emphasizes that *how often you eat is just as important as the foods you choose* when it comes to fat reduction, insulin control, and disease protection. In *The Fatburn Fix*, Dr. Cate Shanahan explains that secretions of the predominant hunger hormone ghrelin are strongly tied to your circadian rhythms. If you customarily prepare a hearty breakfast every morning, you are going to be hungry when you awaken. If you like to take a 2:00 p.m. break from the office to grab a banana and an energy bar from the corner market, ghrelin will reliably spike every day at 2:00 p.m. You may have noticed this phenomenon with

your pets. Every day at exactly 5:00 p.m., my goldendoodle, Shanti, heads into my office and starts to whimper theatrically—her accuracy about the time is uncanny!

If you feel some trepidation about walking away from the cultural mainstay that is snacking, realize that when you're carbohydrate-dependent, snacking is going to be part of your game because you need an energy boost when your blood glucose drops and hunger hormones spike. As soon as your focus wanes and your stomach starts growlin' from ghrelin, regardless of any stern lecture you find in a book, you are likely going to drift down to that corner market and get your favorite snack fix. As your metabolic flexibility improves, strive to confine your caloric intake to mealtimes. Eat as much as you wish in order to feel completely satisfied and happy at every meal; don't concern yourself with calorie restriction or calorie counting.

If you find yourself hankering for an afternoon snack, it's likely that your brain needs a break from tasks requiring your sustained attention. Instead of reaching for a sugary coffee concoction or high-carbohydrate "energy" bar, choose an energizing diversion such as a short walk, a yoga session, or some brief, high-intensity exercise. You'll quickly discover that your brain and body operate much better when you eat less frequently and that it is possible to thrive on a completely different eating pattern from the carbohydrate-dependency paradigm that you have been following virtually your entire life. Once you get out of your own way you can allow your magnificent evolution-honed mechanisms to assume center stage. This means getting away from an obsession with food as fuel, emphasizing intermittent eating over intermittent fasting, and improving metabolic flexibility by waiting until WHEN to enjoy your first meal.

Time-Restricted Feeding

Time-restricted feeding, a popular new concept, simply means that you consume all your calories within a specific time frame

and fast during the other hours. A sixteen-eight strategy has been widely recommended in this realm, meaning sixteen hours of fasting followed by eight hours during which all meals are eaten. For example, you might finish your evening meal by 8:00 p.m., then wait until 12:00 noon the following day to break-fast. This first meal of the day opens an eating window that will close at 8:00 p.m. that evening, and then you repeat the cycle over the following days, weeks, and months—although some departures are expected because of social gatherings and special occasions. Note, though, that the strategy of eating all meals within a compressed time frame doesn't mean eating indiscriminately throughout those hours. The objective is to enjoy a maximum of two meals and no snacking inside the designated window.

A study published in 2019 in *The New England Journal of Medicine* titled “Effects of Intermittent Fasting on Health, Aging, and Disease” carried this crucial quotation from study authors Rafael de Cabo, PhD, and Mark Mattson, PhD: “Evidence is accumulating that eating in a six-hour period and fasting for 18 hours can trigger a metabolic switch from glucose-based to ketone-based energy, with increased stress resistance, increased longevity, and a decreased incidence of diseases, including cancer and obesity.”

It may take some time to build sufficient metabolic flexibility to eat two meals a day in a sixteen-eight rhythm, but this is a great long-term goal. Once you feel comfortable with an eight-hour window, you can easily throw in some days that are eighteen-six, twenty-four, or even a twenty-four-hour fast as you pursue advanced body-composition, antiaging, and disease-prevention goals. I'll discuss these further in [chapter 7](#).

One objective you can execute immediately, and honor for the rest of your life, is to limit your digestive functioning to a maximum of twelve hours per day. Your digestive system is highly attuned to your circadian rhythms. Digestive hormones and enzymes are best adapted for food intake during daylight hours, and your digestive system requires downtime just as your body in general requires sleep. The digestive circadian

rhythms concept has been popularized by Dr. Satchin Panda, research professor at the Salk Institute for Biological Studies, in La Jolla, California, and author of *The Circadian Code*. Dr. Panda explains that practicing time-restricted feeding will help optimize fat metabolism, insulin sensitivity, mitochondrial functioning, immune functioning, gut microbiome diversity, inflammation control, and disease protection.

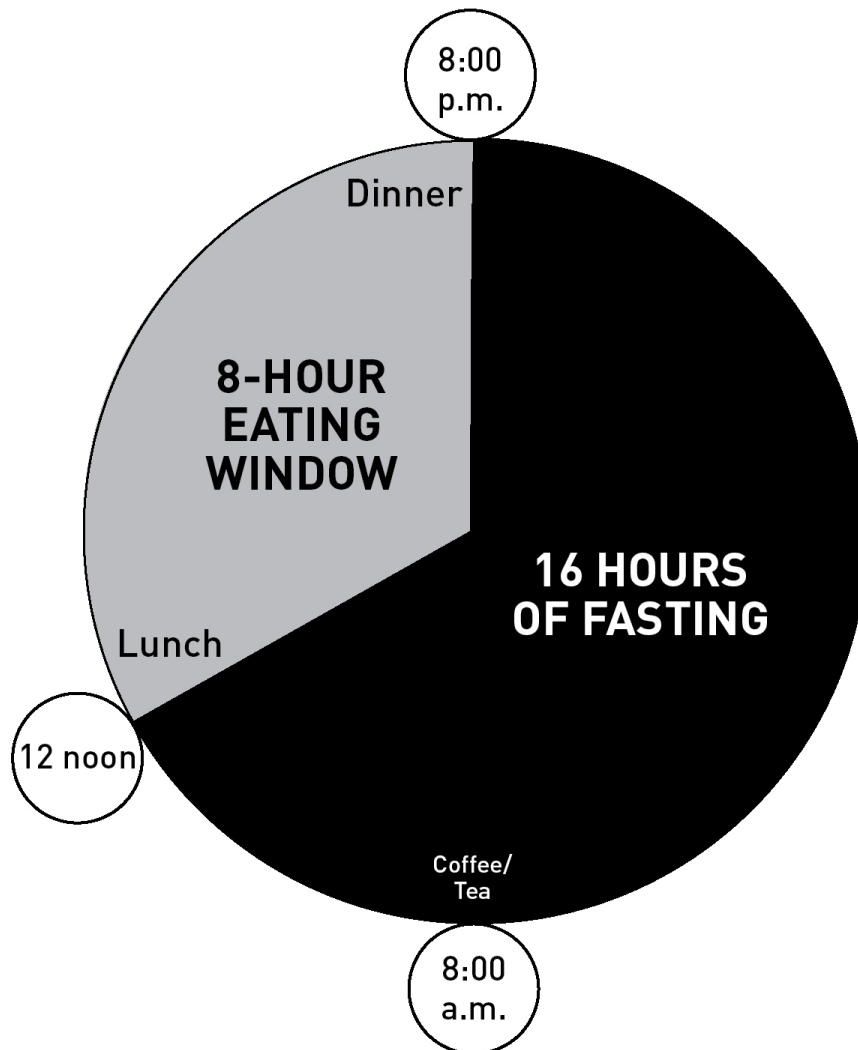
Beyond sleeping and eating rhythms, emerging research (including work from three Americans who won a 2017 Nobel Prize in Physiology or Medicine) reveals the amazing insight that every single organ and system in the body operates according to its own circadian clock. To get comprehensive, system-wide restoration every night, the idea is to synchronize the winding down of all cognitive, physical, and organ functions after dark. This means avoiding intense workouts, big meals, and anything highly stimulatory in the last few hours before bed. If you load your digestive system beyond a twelve-hour workday or eat a significant number of calories after dark, you are inviting problems. Unfortunately, Dr. Panda's research, conducted among thousands of eaters reporting to his smartphone app, myCircadianClock, reveals that the average person eats across a fifteen-hour time window each day—virtually one's entire waking hours! Furthermore, dozens of studies reveal that you are vastly more insulin-resistant after dark, meaning that evening calories are much more likely to be stored as fat.

In Dr. Panda's high-profile 2012 study involving mice, two groups ate an identical number of calories, but one group had constant access to food while the other was restricted to an eight-hour daily window. The mice with constant access became ill and obese, unlike the control group, which ate in a tighter window. Dr. Courtney Peterson, professor of nutrition science at the University of Alabama, Birmingham, repeated the theme in experiments with prediabetic men and generated similar results. Switching from a twelve-hour daily eating window to a six-hour window lowered subjects' blood pressure, insulin levels, appetite, and oxidative stress. In the

evenings, they were less hungry and had increased rates of fat burning.

An important distinction to appreciate with time-restricted feeding is that your digestive clock starts when you consume any xenobiotic substance (something that requires your digestive system to metabolize), even if it has no calories. This means that black coffee, herbal tea, a vitamin pill—most anything except plain water—will initiate digestive functioning. Interesting research supports the idea that turning on your digestive clock first thing in the morning will help you become alert and energized just as exercise will. To get the best of both worlds, you can enjoy some coffee or tea when you wake up, then fast until WHEN. Dr. Michael Platt, expert in bioidentical hormone therapy and author of *Adrenalin Dominance*, recommends swallowing a spoonful of medium-chain triglyceride oil (a.k.a. MCT oil, a popular nutritional supplement available from health food stores or online) in the morning if you are fasting. This will help spur ketone production and provide energy to your brain, thereby preventing a fight-or-flight reaction in people who are vulnerable to them, including high-calorie-burning athletes (especially those in the forty-plus age group), people with thyroid or adrenal concerns, women with healthy body composition trying to lose even more fat, and people who may have a tendency to become overstressed from fasting.

16-8 Eating Pattern



Truth be told, I add a bit of cream and a pinch of sugar to my morning coffee while “fasting” until I eat my Sisson Bigass Salad ([here](#)), around 1:00 p.m. Shhh—don’t tell the fasting police! Activating your digestive clock upon awakening is especially helpful when you are trying to overcome jet lag and adjust to a new time zone, or if you have difficulty getting energized and feeling alert in the morning. In conjunction with initiating digestive functioning, get outside—move your body and expose your eyes to direct sunlight. These will all combine to bring you back online for a productive day.

Something that tripped me up when I was first exposed to time-restricted feeding was that I'd have days where I was sipping my coffee by 7:00 a.m. paired with late dinners and a few squares of dark chocolate while watching TV well beyond the 7:00 p.m. cutoff! Even if you dutifully eat lunch and dinner every day inside an eight-hour or even a six-hour window, you may still risk bumping up against the twelve-hour maximum limit for digestive functioning if you aren't vigilant. Granted, if you are getting the vast majority of your calories in a narrow window, this issue is not a big deal—I was able to change course (and you will be able to as well), but it is something to be mindful of so you can avoid eating too close to the cutoff time.

Intermittent Eating: The Fast-est Way to Health— Journal Exercises

- 1. Metabolic Flexibility:** Describe your meal and snacking habits over the past few months and your current perceived state of metabolic flexibility. Describe your strategies for becoming more adept at fasting and time-restricted feeding over the long term. Describe lifestyle circumstances that influence your meal timing, such as workout patterns and job and family responsibilities.
- 2. Fasting:** For the next week, record the duration of your daily fasts and the hours of your daily digestive functioning. Describe your exercise and activity in the morning hours and rate your level of cognitive functioning, mood, energy, and appetite prior to your first meal.

CHAPTER 4

Implement a Winning Mindset and Behavior Patterns

Over the past decade, my interactions with thousands of devoted health enthusiasts, online and in person, have revealed an elephant in the room that contributes to repeated suffering and failure: *flawed mindsets and behavior patterns* resulting from harmful subconscious childhood programming, manipulative marketing messages, unhealthful cultural influences, and ongoing failed attempts to implement and sustain healthful diet and exercise routines. In [chapter 1](#), I urged you to ditch processed foods. Let's keep that theme alive in this chapter and clean up the self-limiting beliefs and behavior patterns that are holding you back. Time to get unstuck! This chapter will help you understand the what, why, and how of eating and living healthfully. It will help you behave in alignment with your stated goals and make empowering, conscious choices with full accountability.

Acquire Self-Knowledge

In order to truly succeed at achieving metabolic flexibility, you must attain a deep understanding of the practical aspects of healthful eating as well as the flawed subconscious programming and self-limiting beliefs and behavior patterns that are holding you back today. Having read the information about the best foods to eat for your dietary transformation, you

are now, I hope, highly attuned to the best choices for your pantry and your plate. That aspect of *Two Meals a Day* is pretty straightforward. I've often joked that I can tell you everything you need to succeed in healthful eating in a single page—the additional information found in my books and on my website is intended to inspire, entertain, and deepen your knowledge of specific subjects. My elevator pitch would be: “Ditch refined sugars, grains, and seed oils; eat fewer meals and snacks; move more, sleep more, and live awesome!” However, adhering to the simple big-picture principles of healthful living can be easier said than done. It's possible to get so deep in your head that you lose connection with your heart and the power of your intuition. So before you explore the nuances of diet optimization and create a personalized meal plan, it's critical to make a simple, sustainable commitment to ditching processed foods, emphasizing wholesome, nutrient-dense ancestral foods, and honoring your natural appetite and satiety signals.

Making a commitment is the first step; the next is to marshal your resources in support of that goal. In the same way that you would clean out your pantry to make space for new, healthful foods, it's valuable to take a close look at your beliefs and attitudes—not only about food and eating habits but also about your ability to stay focused on long-term goals and resist the potential distractions and diversions of today's comfortable and indulgent modern life, all of which can send you off track.

Identifying your flawed programming, beliefs, and behaviors can be a difficult exercise to complete because most people have a tendency to harbor a negative self-image. We often succumb to FOMO via social media or unhealthy relationship dynamics; we eat for emotional comfort or snack idly. These habits and perceptions are problematic precisely because they occur subconsciously. Numerous large-scale dietary intake studies reveal that subjects have poor recall for what they eat, grossly underreport caloric intake (by an average of 30 percent!), exaggerate consumption of healthful

foods, and overreport physical activity by an average of 50 percent! By conducting an honest accounting of your “issues,” you can bring them into awareness and do some ambitious and sustained reprogramming. This might involve developing the ability to identify a self-critical thought and replace it with an affirmation of gratitude, or it might involve noticing a behavior such as eating too quickly and making a deliberate effort to chew each bite twenty times for the rest of the meal.

Your progress will be accelerated when you learn an assortment of techniques for taking control of your thoughts and physiology—techniques that are covered in [chapter 4](#). For example, learning to override the initial fight-or-flight panic reaction to cold water exposure with intentional breathing techniques can help you become more resilient against all other forms of stress, distraction, emotional triggers, and self-limiting beliefs that arise during a hectic day. As you gain more control and awareness in all areas of life, you will finally be equipped to attack the causes of emotional reactivity and self-sabotage, which can be conscious (e.g., eating too much ice cream because your diet’s not working anyway) and subconscious (e.g., eating for emotional comfort instead of in response to hunger).

Perhaps your top healing priority in the area of diet and failed weight-loss efforts is to acknowledge the harmful psychological effects of following conventional stupidity’s calories in, calories out approach to fat reduction. You may have labeled yourself a disappointment for repeatedly flunking what you thought was a simple math problem but is in truth a hormonal problem. For the millions of people who feel discouraged, lazy, and undisciplined after failed fat-loss efforts, let’s agree right now that *it’s not your fault*. Gary Taubes, bestselling author of *Good Calories, Bad Calories*, *Why We Get Fat* and *The Case Against Sugar*, and widely regarded as one of the leading diet researchers in the world, explains it this way: “Gluttony and sloth are not causes of obesity, they are *symptoms*.”

Here’s what that means: when you eat a high-carbohydrate

meal, you get a quick spike of energy, then insulin floods the bloodstream to remove excess glucose. The resulting abrupt drop in glucose causes your body to become starved for energy—a sugar crash. Granted, you have abundant energy locked away in your fat stores, but it's inaccessible because of the elevated insulin. Without ample energy circulating in your bloodstream, you are too tired to exercise. Instead, appetite hormones spike as your body becomes desperate for energy, and you repeat this glucose-insulin roller coaster all day long.

Hyperinsulinemia also hinders the signaling ability of the key satiety and fat-storage hormone called leptin. Leptin tells you when you are full and whether you burn fat or store it. It is regarded as the preeminent hormone in controlling the deepest human genetic drive for both males and females: to be fit for reproduction. With leptin signaling disrupted, you are more likely to overeat and store the excess calories as fat. Repeat after me: *excess body fat is a result of hormone dysfunction caused by hyperinsulinemia—not lack of willpower or discipline.* When you lower insulin by ditching processed carbs and eating less frequently (assisted by complementary lifestyle behaviors), your body will respond by naturally optimizing appetite and satiety hormones so that you don't overeat or get fat.

Knowing that it's mostly about insulin, and much less about balancing the equation by restricting calories or burning extra calories, still puts the responsibility on you, but it's in the proper context. It gives you a complete understanding of the choices that support health and ideal body composition and those that hinder it. You can filter out the incessant onslaught of flawed science and marketing hype that tries to push you back toward the erroneous concept of calories in, calories out in order to market regimented diet and fitness programming—programming that will ultimately lead to failure, making you feel lazy and undisciplined and leading you to repeat the cycle with new flawed programming. Instead, you can excel any time you want by fasting instead of eating and/or eating a sequence of low-insulin-producing meals. You can take

comfort knowing that regaining your health doesn't require pain, suffering, and sacrifice but rather making choices aligned with your human genetic predisposition for health. Relax, eat (real foods) to your heart's content, and explore your potential for an amazing new body!

Cultivate Compassion and Gratitude

Armed with the understanding that it's not your fault, you can decide that it's time to wholeheartedly forgive yourself for past mistakes and failures, whether in the realm of diet and weight loss, fitness goals, or other personal growth ambitions. Wherever you are today is a perfectly acceptable starting point for your growth and transformation. Self-compassion entails eradicating the slightest traces of guilt and self-pity from your consciousness. You'll learn about turnaround statements shortly, and journal entries of compassion and forgiveness are also effective. If you can't seem to get away from nagging guilt, it may be sobering to understand that guilt gives you an excuse to remain stuck and/or perpetuate your guilt-producing behaviors in the future. Your guilt serves as a protection mechanism for your ego, preventing you from facing the reality that you are sabotaging your own behavior goals. Imagine if you were on a strict diet and departed from it during a weak moment to inhale a fresh-baked cookie. In the aftermath, you might experience feelings of guilt, shame, and remorse. These emotions actually protect your fragile ego: you don't have to feel like a lazy, undisciplined slob—too weak to turn down a cookie while on a diet. The feeling of guilt “proves” that you're a caring, disciplined, successful person who has made an incredibly uncharacteristic mistake worthy of extreme remorse in light of your high standards.

Can you detect the dysfunctional dynamic in play here? Harboring a negative, self-defeating mindset, you may be more likely to plunge off the deep end and devour an entire pint of Ben & Jerry's on the heels of the cookie. The conjuring of guilt, shame, and remorse for consorting with Ben & Jerry

proves that you're not lazy or lacking willpower. Rather, you're just someone who has once again made a grave transgression against your shining reputation and honorable intentions. The cycle repeats every time there's a smell of a new cookie—shame and guilt instead of compassion and gratitude.

The same guilt dynamic might apply to areas where you procrastinate. For example, perhaps Grandma loves to receive handwritten letters from you at the nursing home. You know she checks her mail slot every day in anticipation of hearing from you, but you've been too busy to write recently and feel guilty accordingly. Because you're consumed with guilt over your procrastination, it's clear you are not a selfish and uncaring grandchild. Your guilt protects your fragile ego and effectively allows you to continue to leave Grandma hanging. Granted, guilt can often be leveraged into motivation, but the examples here reveal how easy it is to slip into a rut and stay there through compensatory mental gymnastics.

This is not to suggest that you should suppress your emotional reaction or give yourself a free pass every time you screw up. Dan Millman, megabestselling author of *Way of the Peaceful Warrior* and numerous sequels in the franchise, suggests that we treat emotions just as we treat the weather. When you experience a pouring rain of emotions, deal with whatever form they take—pouring rain cannot be ignored or rationalized away. However, you know that the rain will pass and you will carry on with your life. Acknowledge your “negative” emotions honestly, have compassion for your mistakes, and welcome all life experiences as opportunities for personal growth. When you struggle and feel stuck in pessimism, cultivating gratitude is your path to success. However bad you feel, it could be worse! By honing the skill to conjure gratitude on demand (instead of guilt on demand), you open the door to a healthier disposition and avoid feeling like a victim when life doesn't go as planned. As my wife, Carrie, likes to say (and has written on the kitchen message board), your thoughts—not what's happened to you—are the

source of all your pain. If this sounds trite, respected research suggests that merely forming a grateful thought initiates genetic signaling that influences cellular functioning throughout your body, lowers stress hormones, and promotes relaxation.

Thoughts of gratitude are wonderful, but keeping a written journal can have an even greater impact on reorienting your brain toward happiness and contentment. Anything goes when it comes to your daily gratitude entries. One day you might wax poetic about how happy you are to be alive and breathing oxygen with two lungs; the next day you might be grateful for your new X3 Bar home exercise apparatus. Even if you can only muster ten seconds for a one-liner, make a gratitude journal entry every single day.

When you make gratitude a daily practice, you boost your potential for happiness; gain greater control over emotions such as anger, jealousy, frustration, and regret; reduce aggression; improve empathy; and even sleep more soundly. Dr. Robert Emmons, professor of psychology at the University of California at Davis, author of *Gratitude Works!: A 21-Day Program for Creating Emotional Prosperity*, and widely regarded as the world's leading scientific expert on gratitude, offers an assortment of suggestions to cultivate a rewarding gratitude practice. First, as I mentioned in the introduction, use a handwritten journal for maximum effectiveness. Second, whatever's happening now, try to remember a time when things were worse and be thankful you got through it and that things are better today. Third, surround yourself with visual reminders, such as a sticky note with a short inspirational phrase on it or an hourglass on your desk to remind you that retirement is a year away. Fourth, fake it till you make it. If you're having a rough day, get out there and smile, say thank you, and perform a random act of kindness. These behaviors will trigger gratitude hormones and brighten your day. Finally, keep life fresh and exciting so you can cultivate gratitude for new adventures and circumstances.

Control Your Thoughts and Physiology

Dr. Bruce Lipton, author of *The Biology of Belief*, is recognized for his breakthrough research in stem cell biology, revealing the influence of psychology and spirituality on everyday cellular functioning. It's clear how environmental inputs such as food, exercise, and medication affect cell functioning, but the field of quantum biology proves that we can also influence cellular functioning with our thoughts. Think about how you feel when you get a phone call with great news: instantly happy and energetic. When bad news comes, on the other hand, you can quickly become depressed and exhausted. Lipton describes what's happening inside your body in reaction to experiences: perception switches located on your cell membranes interpret your positive or negative thoughts and trigger the production of either mood-elevating hormones such as serotonin or, alternatively, stress hormones such as cortisol.

Peak-performance guru Tony Robbins promotes a practice called priming, which involves breathing, visualization, gratitude, and relaxation exercises to reprogram the subconscious mind toward "love, passion, and success." Meditative practices of this nature have been strongly validated by science and are shown to be highly effective. Consider the amazing exploits of Dutch extreme athlete Wim Hof, a.k.a. the Iceman. Hof conducts special breathing exercises of "controlled hyperventilation" to override programmed human physiology and enable superhuman feats of cold tolerance and endurance. He has set more than two dozen Guinness World Records, including spending an hour and fifty-three minutes submerged to the neck in ice and climbing to 23,600 feet on Mount Everest wearing only shorts and shoes.

Perhaps most remarkable is Hof's ability to quickly train novices to perform similar feats using his method of intentional breathing. In 2016, he led a group of twenty-six ordinary climbers to the summit of Mount Kilimanjaro (19,340 feet, or 5,895 meters) in only forty-eight hours. This is a

fraction of the typical summit excursion time, made possible by the Hof breathing exercises, which enabled the group to bypass the usual mandatory periods of acclimation to rising altitudes. Nearly half the group climbed wearing only shorts, withstanding temperatures of minus four degrees Fahrenheit (minus twenty degrees Celsius). Hof's successes demonstrate the ability of the conscious mind to override our genetically programmed fight-or-flight panic reaction when we encounter a stressor such as cold water or air or high altitude.

The idea that conscious behaviors such as priming and intentional breathing can influence your biology is a profound realization to embrace when you apply it to all areas of your life. When you can meditate, breathe, or merely think your way into a default state of love and gratitude, you become a master over your emotions and promote health and longevity. You can actually program your cells in the direction of renewal and regeneration. By contrast, if you make no effort to control your thoughts, breathing, or emotional reactivity, your cells will drift repeatedly into fight-or-flight mode as you battle to just get through another day.

Dr. Lipton validates this concept by explaining that our cells have three categories of perceptions: a growth response, a neutral response, and a protection response. He identifies love as the most powerful trigger of a growth response, promoting health and longevity, and fear as the most powerful trigger of a protection response—the essence of fight-or-flight survival mode. Interestingly, the HPA (hypothalamic-pituitary-adrenal) axis carries out both growth and protection responses in the body. Cells cannot multitask; they are either in growth mode, protection mode, or “listening to elevator music” mode—Dr. Lipton's characterization of a neutral stimulus. When a threatening environmental stimulus hits the hypothalamus (the brain's control tower for assorted hormonal and metabolic functions), it signals the pituitary gland (the master gland coordinating activity in trillions of cells) to mount a protective fight-or-flight response. The pituitary signals the adrenal glands to flood the bloodstream with stress hormones. You are

now in battle mode at the direct expense of immune protection and longevity.

A protection response can happen during a traffic jam, an argument with a loved one, or upon receiving critical feedback from your boss at work. As you recount such an event to supporters and confidants, you'll likely gain validation that you were justified in mounting a protection response. However, the core message of the work of Dr. Lipton and others, including bestselling mind-body author Deepak Chopra, MD, is that you have the power to send your perception switches a different message. A traffic jam can be a great opportunity to practice some relaxation breathing and catch up with distant loved ones during a hands-free phone call. An argument with your partner? Author David Deida gives men some choice advice in his book *The Way of the Superior Man*. A heated emotional exchange is a great opportunity to "lean into [a woman's] radiant feminine energy," including the emotional intensity she brings to an argument, and shower her with love and humor. Paraphrasing Deida's message, we can conclude that only a lesser man would respond with a protection response!

Dr. Lipton contends that by the time we reach age thirty-five, 95 percent of our thoughts and actions originate from the habitual programming of the subconscious mind that occurred from infancy through age seven. This is a combination of memorized behaviors, emotional reactions, beliefs, and perceptions. As children, we were open and receptive—virtual sponges—absorbing the environmental influences that shape our lifelong beliefs and behavior patterns. Unfortunately, for many people, some or perhaps most of childhood programming was not positive or supportive. When a teacher criticizes a student or a peer teases a playmate, these experiences become embedded in the subconscious and can manifest themselves as negative self-talk and self-sabotage over the ensuing decades. Brain research reveals that our subconscious thoughts are extremely repetitive (98 percent of today's thoughts are identical to yesterday's) and largely

negative (80 percent).

This means that transformation in any area of life, from breaking bad habits to forming an empowering new self-image, requires disconnecting from the subconscious and engaging in a state of conscious awareness. For example, if you eat too quickly, you can attempt to reprogram this habit by deliberately counting twenty chews every time you take a bite of food. Dr. Lipton describes the two primary ways to reprogram the subconscious as *habituation* (repetition of desired behaviors until they become habit) and *hypnosis* (accessing the sponge mindset you had as a child with an experienced therapist in order to revise the programming). The 12-Day Turbocharge (see [here](#)) will feature assignments to help you identify flawed beliefs and behaviors and cultivate the ability to take control of your thoughts and physiology.

Formulating a Plan of Action

The essence of this chapter is to identify specific self-limiting thoughts and beliefs as well as flawed behavior patterns against which you will take corrective action. You can begin work on this immediately if you choose, and you will be given specific assignments in this area during the 12-Day Turbocharge. You likely have an assortment of issues that will come to mind quickly. For reference and inspiration, following are some of the most common areas of struggle for people seeking health and dietary transformation.

- **Total eradication of the Big Three:** Acknowledge that marketing forces and cultural traditions are conspiring against you when it comes to cleaning up your act. While part of the allure of sweets, treats, and comfort foods comes from their intense flavor, you are also getting hit with a barrage of advertising as well as cultural influences that connect indulgent foods to celebration and fond memories. The best way to combat these forces is to commit to total elimination so that you

don't have to waste any decision-making energy or willpower on resisting the temptation of your old favorites. When a bag of peanuts is dangled in front of someone with a severe peanut allergy on an airplane flight, the allergic person politely refuses the peanuts. There is no pondering, temptation, or FOMO, because the certainty of suffering vastly outweighs the pleasure of having a snack. Adopting a mindset of "these foods are off limits for me" out of the gate is the easiest way to succeed.

- **Self-image:** We are bombarded with advertising and social media commentary designed to elicit fear, insecurity, and desperation in order to command our attention and stimulate product sales. It's critical to escape the airbrushed world of models, fitness icons, and hucksters and redirect your attention to feelings of compassion and gratitude for wherever you are today. While there have been some controversies and misinterpretations associated with the body positivity movement, let's agree that you can exist in a state of gratitude and still pursue goals and dreams of looking and feeling better by improving your overall health.
- **Eating environment:** The two branches of the autonomic nervous system are the sympathetic, nicknamed fight or flight, and the parasympathetic, nicknamed rest and digest. It's essential that you create a calm, quiet, relaxing, celebratory environment every time you eat a bite of food. Next, resolve to eat at a comfortable pace, chewing each bite a minimum of twenty times to allow your salivary enzymes to play their important role in digestion. When you eat in a highly stimulating environment, such as while driving, working at your desk, or even watching television, you compromise healthy digestive functioning and risk regressing into bad habits such as overeating and idle snacking. When you improve metabolic flexibility and

get into a *Two Meals a Day* groove, you will naturally gain an increased appreciation for eating as one of the great pleasures of life. Feeling a bit hungry at mealtime will help you execute this goal of optimizing your environment and eating pace.

- **Mindfulness:** In addition to eating in a relaxed, celebratory environment and avoiding the insulinogenic effects of snacking, make an effort to give your full attention and awareness to every bite of food that you eat. It's nice to relax in front of the television with a meal or treat, but please make a concerted effort, at least over the short term, to transform eating into a meditative exercise. Enjoy meals as a social connection, but eliminate all other potential distractions so you can concentrate on your intense enjoyment of the food.

You may have read an assortment of proclamations about how long it takes to form a new habit—twenty-one days, thirty days, and six weeks are all referenced frequently. The truth is that despite more than a century of extensive study of human behavior, there is no simple answer. Your personality type, stress level, attitude, and the degree of difficulty of the objective at hand make it impossible to pinpoint a theoretical finish line where you can relax and switch over to autopilot. For example, if you are attempting to create a habit of doing something that you dislike just because it's good for you, you are very likely to fail over the long term. The same is true for attempting to implement a habit of doing something you honestly don't think is important. We may come into conflict with a partner when we engage in behaviors such as squeezing the toothpaste in the middle of the tube, leaving dirty dishes in the sink, and not shutting off the lights in a room we've just left because these actions, which may be unimportant to you but are potentially important to your partner, are ingrained so deeply into your subconscious that you're not aware of doing them, despite how much they may annoy your partner and others.

Consequently, the attributes of successful habit formation include the following.

- **Importance:** The more meaning and value you place on developing a certain habit, the better your chance of success. If you are not great about cleaning up after yourself in the kitchen, but it's important to your partner, it's time to change your ways and make it important. Bestselling author and marriage expert Dr. John Gottman describes three levels of relationship progression: first getting your own needs met, then meeting your partner's needs, and finally having *your partner's needs become your own*. Go all out here and make your partner's kitchen cleanliness wishes your own!
- **Consciousness:** By definition, habit formation entails consciously and repeatedly behaving in a certain way until it becomes programmed into habit. This means that every time you engage in an activity, you must pay attention and think about what you're doing. It might help your progress to create triggers that take you out of that 95 percent autopilot mode and into mindfulness—perhaps a sticky note with a reminder about the toothpaste tube or singing a silly song about clean dishes when you're tidying up the kitchen.
- **Repetition and endurance:** If you tidy up the kitchen sink one night and proclaim yourself a changed human, you are probably going to disappoint yourself and others over time. As athletes in technique-dependent sports know better than most, reprogramming your subconscious to correct technique flaws and improve performance can be very frustrating. One day you feel like you're in the zone and in total command, and the next time out you have regressed. It's important to understand that forming a habit requires an ongoing

commitment to importance, consciousness, and repetition and endurance. The powerful pull of the subconscious is always lurking, ready to sabotage your progress. Make a renewed commitment each day, and don't take any improvements in behavior for granted. If you experience any backsliding, apply your wonderful weapons of compassion and gratitude and get back on track the next time.

There is a Zen saying: "The way you do one thing is the way you do everything." The more you can move the needle away from that 95 percent subconscious-behavior mode into mindfulness, the greater your potential for long-term health, happiness, and contentment. Your efforts to transform your diet can become a catalyst for transformation in every other area of life. As we learned from Wim Hof, simply gaining mastery over breathing can enable a novice enthusiast to perform superhuman feats in a short time.

Believe!

Belief is about envisioning an awesome new future in which both your body and your mind are transformed. You can feel empowered knowing that success is completely under your control: it's a matter of making choices that align with optimal gene expression and avoiding choices that harm your health. Buoyed by the compassion and gratitude you are currently cultivating, and the honest identification of the flawed subconscious programming that is holding you back, you can put an end to the denial, excuses, and blame that have hindered your past progress. With heightened awareness, you can catch the self-destructive thoughts, statements, and behaviors that crop up reflexively throughout the day and reframe them into empowering new beliefs—affirmations and winning behaviors that you will eventually embrace as habit.

Dave Rossi, leadership and performance coach and author of *The Imperative Habit*, suggests that when you experience

the inevitable fears and anxieties that crop up in the process of life transformation, you must actively redirect your focus to your *values and vision*. For example, if you feel frustrated by a lack of progress with fat reduction, you calmly acknowledge your frustration without judgment. Then turn your attention to how much better you feel each day after making healthful food choices (values) and trust that results will happen over the long term (vision).

Get inspired by connecting with real people leading busy lives filled with challenges, limitations, and distractions who are nevertheless achieving remarkable transformation. Reach out to people in your social circle or community whom you admire for their commitment to healthful living and elicit their support and guidance. Consider hiring a coach or trainer to get some personalized attention. Enlist a buddy to become your accountability partner, even if you can't eat or exercise together regularly. Take a look at the Success Stories section of MarksDailyApple.com to see the thousands of stunning before-and-after photos and impassioned stories from people who have reclaimed their health and transformed their bodies. When I first met Tara Grant, author of *The Hidden Plague*, she weighed 268 pounds and was suffering from the serious skin disease called hidradenitis suppurativa (HS). Besides the hidden plague of HS, she had assorted other inflammatory and autoimmune conditions requiring prescription medication, which hindered her ability to simply get through the day as a busy mom. Her book details an amazing journey of healing, mainly through dietary transformation and a hopeful attitude. Tara dropped a total of 125 pounds and has kept it off for a decade and counting. Her HS affliction, one that traditional medical authorities classify as "incurable" and usually treat with potent antibiotics, anti-inflammatory drugs, and surgery, is in long-term remission.

Nailing this objective of believing in yourself and harnessing your boundless potential requires a delicate balance between having compassion and gratitude for where you are today and tapping into the sustained focus, discipline, and

motivation necessary to do better. Many people get tripped up by engaging in wishful thinking while still harboring negativity and self-limiting beliefs. True believers emanate compassion and gratitude and never linger in the disgust, resentment, and shame that can sabotage progress.

It takes work to break free from self-limiting beliefs, not only because of their embedded programming but also because we have been socialized to believe that negative energy can be a useful motivational tool. Sports coaches are lauded for their win-at-all-costs intensity; helicopter parents use conditional praise and veiled criticism to extract inauthentic results; high-energy trainers badger their clients to push ever harder; social media preys on our insecurities and cultivates FOMO. Feeling shame and guilt can get you off the couch and into the gym, and it can keep you away from the refrigerator for a succession of evenings, but it's a flimsy motivator in comparison to empowering beliefs. Often, after temporary success is obtained, a rebound effect of rebellion and regression occurs. When you love yourself as you are and love the process of self-improvement, you heighten your odds of succeeding with long-term lifestyle transformation.

My hope is that this material is getting you focused, inspired, and motivated, but honestly it is a huge challenge, and the stakes are high. Your flawed programming, beliefs, and behavior patterns have become part of your identity to the point where it can be difficult to appreciate the extent to which your thoughts control your behavior. As Jack Canfield, megabestselling author of the *Chicken Soup for the Soul* series, suggests, "If you want to find happiness in life... put a muzzle on that inner critic and transform it into an encouraging, loving, and positive inner coach." The inner critic can be incredibly destructive; Canfield cites research concluding that we talk to ourselves around fifty thousand times per day and that 80 percent of that self-talk is negative.

It's a common notion in spiritual psychology that the affluence and love we achieve in life equates to our level of self-worth. In his book *The Big Leap*, psychologist Gay

Hendricks advances the compelling argument that we bump up against an “upper limit” in life—“an inner thermostat setting that determines how much love, success, and creativity we allow ourselves to enjoy.... Unfortunately, [that] thermostat setting usually gets programmed in early childhood.... Once programmed, our Upper Limit thermostat setting holds us back from enjoying all the love, financial abundance, and creativity that’s rightfully ours.”

To transform any limiting belief into a positive one, Jack Canfield recommends identifying the belief you would like to change, determining how that belief limits you, and deciding how you would rather be, act, or feel. Then create a “turnaround statement” that affirms or gives you permission to be, act, and feel in a new way. Implant the statement into your subconscious mind by repeating the statement for two to three minutes several times per day for a minimum of thirty days. If this stuff sounds silly and you don’t think it will work, you’re right! It’s not going to work for you with that attitude. If you believe deeply that this can work, that you deserve to transform, and that you will make a full commitment to the process, you are going to prove yourself right. Go for it!

Implement a Winning Mindset and Behavior Patterns —Journal Exercises

- 1. Gratitude journal:** Get your gratitude journal started with a bang by spending ten to twenty minutes describing a handful of life circumstances you are grateful for right now. Commit to making an entry every day for the duration of your *Two Meals a Day* experience, including the culminating 12-Day Turbocharge.
- 2. Self-knowledge:** Describe some ways that reading *Two Meals a Day* has helped you become enlightened or compelled to challenge fixed beliefs about healthful eating and healthful food choices. Describe some ways

in which your new knowledge will affect your eating habits over the long term.

- 3. Compassion and gratitude:** List a few past mistakes or failures that have been eating at you for a while. Resolve to let them go and give yourself a fresh start and a blank-slate mindset.
- 4. New thoughts and actions:** List any self-limiting thoughts, beliefs, or behavior patterns that have negatively affected your health in the past. Describe how you are going to bring them into your awareness and take corrective action on the spot (e.g., chewing more slowly at meals) as well as how you will sustain these new thoughts and actions by means of repetition and endurance.
- 5. Believe!** Create some specific turnaround statements for the challenges you are tackling. Write them (or meaningful abbreviations of them) on index cards or sticky notes and display them in a prominent place for daily reflection.

CHAPTER 5

Follow a Fat-Burning Lifestyle

Complementary lifestyle practices are essential to honing your fasting and fat-burning skills. This chapter will address your evening sleep habits as well as ways in which you can get sufficient rest, recovery, and general downtime after exercise stress, draining workdays, and the insidious current health challenge of hyperconnectivity. You will also learn how to tackle the critical fat-burning objective of increasing all forms of general everyday movement and integrate brief, intense workouts into your routine to help turbocharge fat burning around the clock.

Sleep Like a Champ

A good night's sleep allows your brain and body to repair and rejuvenate itself from a stressful modern life. It is the centerpiece of a healthful lifestyle—the one health practice from which all others emanate. If you aren't sleeping adequately, it's not even worth attempting dietary transformation or fine-tuning the particulars of your exercise program. The biggest modern challenge to healthful sleep is that we flood our evenings with artificial light and digital stimulation for many hours after the sun sets. This violently disrupts our all-important circadian rhythms and the extremely delicate hormonal functions that for millions of years have been calibrated to the rising and setting of the sun. Mobile

devices and digital stimulation in general have compromised human sleep more severely than anything else in the history of humanity. The previous generation might have occasionally stayed up past bedtime watching a late show on television, but our ability to enjoy on-demand programming 24-7 and operate mobile devices constantly tempts us to sacrifice sleep for further stimulation.

We pay lip service to the importance of sleep, but we allow the insidious “autoplay next episode” feature to turn us into binge-watchers. We keep our phones at our bedsides so we can react to social media alerts and text message dings during that precious wind-down time when melatonin is supposed to be flooding our bloodstreams, lowering blood pressure and body temperature and generally making us feel sleepy. Research cited by Dr. Jason Fung in *The Obesity Code* reveals that Americans slept for an average of nine hours per night in 1910, eight to nine hours per night by 1960, and seven hours per night by 1995. Today, 30 percent of adults sleep for fewer than six hours per night. This has disastrous implications for general health and disease risk and is specifically destructive to the ability to drop excess body fat and build metabolic flexibility. Dr. Fung explains that a single night of insufficient sleep can spike cortisol by 100 percent, putting you on the path to carbohydrate cravings, overeating, and suppressed immune functioning the next day. Numerous longitudinal studies of large population groups validate the idea that sleep deprivation is directly associated with insulin resistance, obesity, and elevated disease risk.

Optimizing sleep requires minimizing artificial light and digital stimulation after dark, creating an ideal sleeping environment, and developing habits that keep you aligned with your circadian rhythms. Practicing the following will help you get sleepy on cue in the evening, cycle optimally through all the stages of sleep overnight, and awaken near sunrise feeling refreshed and energized for a happy, productive day.

Create an Ideal Sleep Environment

- 1. Make your bedroom a sanctuary.** Along with getting in closer alignment with your circadian rhythms, it's essential to create an optimal sleeping environment—a bedroom sanctuary that serves as a shrine to rest and relaxation. Keep your bedroom simple, tidy, clutter-free, and reserved for sleeping only (okay, intimacy, too). Try searching Google or Pinterest for “minimalist bedroom” imagery to get inspired. The goal is to achieve a psychological transition between the liveliness of your home and the resting place of your bedroom. Absolutely no television, computer, work desk, or clutter allowed. Studies suggest that just looking at a pile of clutter or an unfinished home improvement project can provoke a stress-hormone response at the subconscious level.
- 2. Achieve total darkness.** Ensure that your room is completely dark when you turn out the lights. Even minor light disturbances can disrupt sleep, not just through your eyes but also through light receptors located on skin cells throughout the body. A study referenced in the book *Lights Out: Sleep, Sugar, and Survival*, by T. S. Wiley with Bent Formby, PhD, revealed that flashing a single beam of light on the back of the knee was sufficient to disrupt melatonin production. Extreme biohacker Dr. Jack Kruse cites extensive research indicating that restorative hormones such as testosterone and human growth hormone surge between midnight and 3:00 a.m. but require total darkness for maximum effectiveness.

Get the best blackout curtains or room-darkening blinds you can find, and make sure they fit perfectly. Cover plug-in devices that emit tiny charging indicator lights with electrical tape or get them out of the bedroom. If you must get up in a dark room, put a small red LED flashlight at your bedside instead of flipping on overhead lights or using a bright phone screen to light

your way.

- 3. Stay cool.** Low ambient temperature and lower-than-daytime body temperature are triggers for optimal sleep. As we approach bedtime, circadian influences cause a gradual decline in body temperature and heat production and an increase in heat dissipation. As you progress through a night of sleep, thermosensitive cells in the hypothalamus also help coordinate the efficient cycling through all stages of sleep. Consequently, it's important not to undermine these delicate processes by cranking up the thermostat before bed or snuggling under too many layers of bedding, which can increase body temperature.

Maintain a bedroom temperature of between sixty and sixty-eight degrees Fahrenheit (sixteen and twenty degrees Celsius) year-round. The ideal setup is to balance a cool core temperature (via breathing cool air and lying on a cool mattress) with comfortably warm skin (via just the right amount of nightclothes and blankets). Your brain needs a temperature drop of between two and three degrees Fahrenheit in order to go to sleep. Consider investing in the best mattress you can afford (it's only for one-third of your life!) that has breathable materials to dissipate excess heat. If you want further temperature optimization or have trouble with overheating, night sweats, or insomnia, consider investing in a chiliPAD (ChiliTechnology.com). This is a water-cooled mattress cover that can be programmed to attain specific temperatures at specific hours. Lying on a pre-cooled mattress helps you lower your core temperature in order to facilitate sleep and prevents the common occurrence of getting too warm under the covers at night, thereby disrupting sleep. *Full disclosure:* I slept so well on a prototype chiliPAD that I became an investor in the company!

In general, try to err on the cool side with your clothing and room temperatures in the final hours before getting into bed and covering up. Surprisingly, if you take a warm bath before bed, the vasodilation of your skin surface will cause heat to dissipate the moment you exit the warm tub. The net effect will be to lower your core temperature. As you approach morning, your body temperature will naturally rise in preparation for awakening.

- 4. Make it quiet.** Your sleep sanctuary must be quiet to ensure that the brain goes off-line and encounters no interference during your night of restoration. If you live in a rural area where there is complete silence overnight, that's great. People who live in urban areas may benefit from devices that use noise-canceling technology or produce white noise. The idea is that your brain quickly becomes accustomed to a consistent, soothing tone that will drown out any acute, unpredictable noises that might occur during the night—a snoring partner, a whimpering dog, urban traffic, or industrial sounds. The best choice might be a combination HEPA air filter and ionizer that energizes and purifies indoor air and blows like a fan. A tabletop fan, humidifier or dehumidifier (depending on how you want to optimize your room with respect to your climate), or dedicated white-noise machine also works well. When traveling, I like the convenience of a smartphone app that emits nature sounds such as ocean waves or rainfall.

Evening Behaviors and Preparing for Bed

- 1. Celebrate the sunset.** I realize that evenings are a time to enjoy social gatherings, celebratory meals, and digital entertainment, so I don't want to cramp your style too much. However, I want you to do something every

single day for the rest of your life: *celebrate the sunset!* This wondrous daily occurrence is quite a sight when you're out hiking or fishing, but it also has profound implications for important biological processes. For billions of years, the rising and setting of the sun has calibrated the cellular functions of every living organism on earth. Our hormone secretions, cognitive processes, cellular-repair functions, and immune responses are tied to a circadian rhythm.

When the sun sets, your mind and body begin a natural and graceful transition into mellow evening mode and eventually sleep. Do the best you can to not interfere with this biological drive: finish workouts, meals, and screen entertainment as early in the evening as possible. Never view emotionally intense programming, engage in arguments, or discuss stressful personal financial or household matters in the evening hours. Make sunset a revered occasion, and table anything that can be considered highly stimulating until the next day.

- 2. Minimize blue light exposure.** The most urgent health priority after dark is to greatly minimize your exposure to the artificial “blue light” that is emitted by screens and indoor lighting. Blue light is the highest-energy wavelength of visible light; the sky and the ocean look blue because high-energy, short-wavelength blue light scatters more easily than other visible light when it hits air or water in the atmosphere. Humans benefit from extensive exposure to the blue light in sunshine during the daytime, but blasting our eyeballs with bright indoor lights and screen emissions all day long and into the night has been shown to increase the risk of macular degeneration.

Our circadian rhythms are counting on zero blue

light after dark, so indoor lighting and digital screens have a highly destructive effect on various hormonal functions. They have a particularly negative effect on dim light melatonin onset (DLMO), which is an important circadian process that helps you wind down cognitive and metabolic activity; lower heart rate, blood pressure, and body temperature; and eventually get you feeling sluggish and drowsy so you can cycle through various sleep stages, from REM to deep sleep. Research suggests that routine evening screen use can suppress melatonin levels by 50 percent. Melatonin is the hormone that induces sleepiness, but it also delivers potent antioxidant, anti-inflammatory, cell-repair, and genetic-regulation benefits. Hours of bright light and digital stimulation after dark override many other extremely delicate and health-critical circadian functions relating to rest and restoration. Instead of the genetically programmed wind-down that happens naturally after dark, continuous light exposure causes spikes in cortisol and ghrelin, generates an increase in insulin resistance, and hampers leptin signaling. In essence, blue light exposure at night can lead to sugar cravings and fat storage.

Fortunately, you can implement an assortment of strategies to minimize evening light exposure. Light sources that emit orange, yellow, or red hues do not disrupt melatonin production the same way blue light does. It makes sense that we have genetically adapted to firelight! Replace some of your regular lightbulbs with orange bulbs (sold as “bug” bulbs at home supply stores), or try the newly popular vintage tungsten bulbs, which have an orange filament visible inside the glass. The orange glow of Himalayan salt lamps evokes nature and tranquility. Salt lamps are also believed to attract airborne pathogens, trap them, and release energetically

charged air molecules known as negative ions into stagnant indoor air. You can also wear the rose-, orange-, or yellow-lens glasses that are rated with UV protection during the evening hours, especially if you are watching television or using your phone or computer. A light lens color allows you to see well indoors, and the UV protection blocks most or all of the harmful blue light. Visit RAOptics.com to shop for stylish pairs or get inexpensive UVEX lenses online. Make sure your eyewear has a UV protection rating. If you insist on using screens after dark, download the free program [f.lux](http://JustGetFlux.com) (JustGetFlux.com) or purchase the inexpensive and more sophisticated IrisTech (IrisTech.co) software. Always enable the Night Shift feature on iOS devices or Night Mode on Android. These technologies help soften the intensity of the light emitting from your screen so that it's better synchronized to the nature of the light in your environment.

If you are working on a machine running [f.lux](http://JustGetFlux.com) software at precisely sunset, you'll notice an elegant shifting of the screen's "color temperature," a description of a light source's warmth (orange/yellow hues) or coolness (blue hues). Color temperature is measured on a scale of Kelvin ("K") degrees. For reference, candlelight is 1900K, sunny blue sky is 10000K, while a typical LCD computer monitor runs at 6500K. Hence, at sunset, [f.lux](http://JustGetFlux.com) kicks in to make your computer light emission warmer, or lower on the Kelvin scale.

When it's time to go to sleep, use a high-quality sleep mask if you struggle to fall asleep, have a partner staying up late, or sleep during the daytime because of your work schedule.

3. Put away your mobile device. Because mobile devices are easy to use and held close to your eyes, using them around bedtime is particularly harmful. A Harvard study revealed that habitual nighttime screen use (in comparison to nighttime reading of printed material) contributes to making you feel groggy the following morning. You will also take longer to feel fully energized. Kids are especially sensitive to evening light exposure from electronic devices. Preschool children who were exposed to bright light for one hour before bed experienced a near-total suppression of melatonin that lasted for an hour after the exposure.

If you wake during the night and reach for your phone to check the time, that temporary blast of light can suppress melatonin and spike stress hormones, keeping you awake. Checking the time can also produce anxiety about how soon your alarm will be going off. And if you get drawn into a text message or news alert in the middle of the night, your brain will quickly exit rest mode and the turbines will start spinning. This is harmful because the brain needs sustained downtime to detoxify. During a continuous period of sleep, the rate of neuron firing decreases and the volume of extracellular space between neurons increases by a whopping 60 percent. This allows the glymphatic system to flush out neurotoxic waste products that accumulate while the brain is firing hard during the day. If possible, charge your phone outside the bedroom so you won't be tempted or disturbed by it.

4. Conduct bedtime rituals. Do your best to create a mellow evening experience, but at the very least dedicate the final hour before bed to calming behaviors and rituals. In her bestselling book *The Sleep Revolution*, entrepreneur Arianna Huffington explains that bedtime rituals trigger the brain and body to calm

down and prepare for sleep. Her favorite is to “gently escort all your devices completely out of your bedroom” when it’s time to wind down. If you have trouble falling or staying asleep, implement a deliberate sequence of relaxing behaviors that appeal to you. Perhaps a brief foam-rolling session, a quick trip around the block with the dog, or a candlelight bath. Then change into your pajamas, read for a bit in bed using a strap-on headlamp or book light, and turn off the lights at the same time every evening. Mark Manson, *New York Times* bestselling author of *The Subtle Art of Not Giving a F*uck* and *Everything Is F*ucked: A Book About Hope*, describes rituals as “visual and experiential representations of what we deem important.” By implementing your custom-designed bedtime ritual and doing it every night without a second thought, you create a positive feedback loop with your actions. You prove to yourself that you value and prioritize your rest.

Be aware that minimizing artificial light and digital stimulation after dark is going to cramp your style more in the winter than in the summer. This aligns with our evolutionary experience: our ancestors slept more, exercised less, and ate less (especially carbs, as previously mentioned) in the winter. Give yourself a proper winter instead of lighting up your life for hours and hours after dark. In the summertime, you can do just fine with more activity and less sleep. In *Lights Out*, authors Wiley and Formby suggest that eight hours of sleep is a good goal in the summer but that we humans may need up to nine and a half hours per night in the winter!

And finally, when you arise from a good night’s sleep...

5. Celebrate the sunrise. Optimizing evening sleep actually begins first thing in the morning with going

outside and exposing your eyeballs to direct sunlight. When natural sunlight hits your retina, it travels down the optic nerve to the suprachiasmatic nucleus (SCN), in the hypothalamus. The SCN is considered the “master clock” of your circadian rhythm. It responds to light exposure by kick-starting and synchronizing an assortment of desirable cognitive, hormonal, and endocrine functions. For example, the SCN triggers a spike of energizing hormones such as serotonin, cortisol, and adenosine in the morning, making you feel alert and energized for a productive day. Darkness in the evening prompts the conversion of serotonin into melatonin, the hormone that makes you feel sleepy and influences dozens of other repair and restoration functions overnight. The SCN morning mechanisms are most potent right around sunrise, so getting to bed at the appropriate time, awakening as close as possible to dawn, and getting outside immediately will help you leverage your genetic potential for high-energy days.

Rest, Recovery, and Downtime

Getting out of bed after a good sleep and going full throttle until you collapse into bed again is behavior that is not aligned with health. It’s essential to include actual downtime throughout the day—napping, resting, relaxing, daydreaming, contemplating nature, and generally unplugging from hyperconnectivity. Our brains are not capable of processing the massive amount of stimulation we face all day long without a breather.

While it might be easy to neglect downtime in order to accomplish more, more, more during each jam-packed day, it’s important to realize that the hectic pace of modern life is a massive disconnect from our ancestral experience as hunter-gatherers. Humans are definitely adapted for brief bursts of peak physical and cognitive performance, and our ancestors

had incredible amounts of rest, relaxation, and leisure time to balance the effects of the often harsh life-or-death challenges of primal life. Studies of the !Kung bush people, modern-day hunter-gatherers living in southern Africa's Kalahari Desert, have found that they spend three hours a day tending to basic needs and habitat chores and five hours a day hunting and gathering food. On the other side of the coin, they spend a whopping six hours per day in leisure activity (play, family connection, group socializing) and ten hours sleeping or napping. Even the patterns of our parents' and grandparents' generations were incredibly different from our patterns today. Hard work and intense concentration were part of the picture, but there was much more time for leisure, relaxation, and rejuvenation.

Today, we have effectively crowded out every opportunity for stillness, contemplation, and cognitive refreshment with the use of mobile and other electronic devices. Hyperconnectivity is alluring and addictive because the stimulation that arrives from text messages and social media posts delivers what psychologists call "intermittent variable rewards." The quintessential example of an intermittent variable reward is the highly addictive slot machine. Obtaining instant gratification from mobile technology delivers a burst of the feel-good neurotransmitter dopamine in the brain. In Dr. Robert Lustig's book *The Hacking of the American Mind*, he explains that repeatedly flooding the brain with dopamine suppresses the brain's receptors for serotonin, the neurotransmitter responsible for long-term happiness and contentment. The great philosophers throughout history have recognized that a life well lived entails persevering through difficult challenges and setbacks in order to solve problems and make a contribution to something greater than ourselves. Unfortunately, overdosing on dopamine makes us incapable of focusing attention on tasks that are less exciting but potentially vastly more meaningful and ultimately more rewarding.

Beyond hyperconnectivity, Dr. Lustig mentions many other dopamine triggers, including sugar, caffeine, illegal drugs,

prescription antidepressants, excessive exercise, and the disturbing combination of video games and internet pornography—as well as the insidious marketing forces that entice us to indulge in them. Dr. John Gray, the number one bestselling relationship author of all time and the creator of the *Men Are from Mars, Women Are from Venus* franchise, contends that the latter two have particularly dire consequences for society. They hijack and satisfy the young male's most prominent biological drives to the extent that his motivation to pursue real-life career goals and relationships is diminished. The following suggestions will help you obtain the rest, recovery, and downtime necessary to combat the nonstop stimulation of modern life.

1. Discipline your use of technology. Mobile connectivity is one of the greatest technological breakthroughs of our lifetime, but with amazing progress comes a serious downside. Hyperconnectivity is compromising our live, interpersonal relationships and leading to record rates of loneliness, isolation, anxiety, and depression. Our dopamine fixation inhibits not only the happiness and contentment generated by serotonin-boosting pursuits but also the sense of love and connection delivered by the social bonding hormone oxytocin. Because the comparatively humdrum social interactions that stimulate oxytocin are no match for the dopamine hits delivered by our Twitter feeds, we withdraw into social isolation without realizing it.

Your health and well-being depend on your developing the extreme discipline necessary to power down technology at the appropriate times. Like Mister Rogers changing out of work clothes and donning his signature sweater upon arriving home, you can perhaps implement some distinct transitions and boundaries so that personal, social, and family times are free from digital interference. The French government is on board with this thinking, having instituted the El Khomri law

in 2017. Known as the “right to disconnect,” the measure promotes work-life balance in concert with France’s government-mandated thirty-five-hour workweek and five weeks of annual vacation.

Powering down during family time and other live, interpersonal social interactions after a busy workday is an obvious choice, but it’s also important to exercise restraint when powering up in the morning. A study conducted by the prominent global market research firm International Data Corporation revealed that 79 percent of Americans check their smartphones within fifteen minutes of awakening, and 46 percent check them before getting out of bed. When you engage with a device as soon as you wake up, you lock your brain into reactive, short-attention-span, dopamine-craving mode. In doing so, you compromise your capacity to engage in more desirable executive functions in the morning, such as strategically planning your day. Psychiatrist Nikole Benders-Hadi believes that when you immediately reach for the phone, “the information overload that hits before you’re fully awake... interferes with your ability to prioritize tasks... [and] you are more likely to increase stress and feel overwhelmed.”

Consider establishing a deliberate, custom-designed morning routine of enjoyable activities that quickly boost energy and mood, including light yoga stretches, flexibility and mobility exercises, a meditation session, writing in your gratitude journal, or leashing up the dog for a quick stroll. Create a specific and repeatable routine that you can follow habitually without needing to muster motivation, willpower, or creative energy. Do it every single day without fail so there is zero potential for distraction—everything else can wait. When you make a habit of a proactive morning routine instead of a reactive reach for intermittent variable rewards, you will

become more focused and resilient against all other forms of potential distraction that await you during your busy day.

2. Appreciate nature. Getting outdoors into fresh air, sunlight, and open space has an immediate and profound calming effect on your mind and body. Researchers in Japan have produced extensive evidence showing that even a short immersion in a natural environment prompts a reduction in stress hormones, heart rate, and blood pressure and facilitates the transition from sympathetic to parasympathetic functioning. One study revealed that a three-day visit to the forest, including daily walks, resulted in a 50 percent rise in natural killer (NK) cell activity in the immune system, and the beneficial effects lasted for a full month afterward! The Japanese have a national public health program called *Shinrin-yoku*, translated as “forest bathing.” At hundreds of designated therapy bases across the country, participants can enjoy an expert-guided nature walk, enroll in health classes, and even receive medical checkups. England, Norway, the Netherlands, Scotland, and the United States all have ambitious nature-immersion programs integrated into traditional medical care. Dr. Daphne Miller of the University of California at San Francisco coined the term *park prescription*, explaining that “nature has the possibility to be a health care intervention, a prescription, almost like a pill. In many of the studies, there is a dose response relationship. The more you get, the better the outcome.... So don’t be surprised if, at your next visit to the doctor, you are handed a trail map and itinerary along with your lab slip.”

University of Michigan psychologists Rachel and (the late) Stephen Kaplan promoted their “attention restoration theory” as a way of recovering from

“directed attention fatigue” caused by being bombarded with intense and constantly varied stimulation from a computer screen; the average email-centric office worker switches browser windows thirty-seven times per hour! By contrast, taking in the sight of a magnificent forest, mountain landscape, or large body of water allows your senses to engage in a passive manner, triggering a significant drop in cortisol, blood pressure, and heart rate. Retired neuroscience professor Michael Merzenich said, “The smooth surface of the ocean rarely surprises, which is also soothing. When it’s landmark-free, it’s naturally calming to us, much like closing your eyes is calming.”

In contrast to watching the sun set over the ocean, the unnatural and unrelenting stimulus of urban life and digital technology forces us into a hypervigilant, hypersensitive, high-stress mode of mega information processing. This stimulus lights up the primitive, reactive part of the brain known as the amygdala and promotes sympathetic nervous system dominance. When it’s time for peak performance, this is great. We don’t want our basketball referees, computer programmers, and ER staff to be in stargazing mode! However, humans are not designed for unrelenting fight-or-flight stimulation. Directed attention fatigue makes us impulsive, distractible, and irritable. The potential for novel stimulation and distractibility offered by mobile devices makes this a serious health concern unlike any that has been seen before.

Neuron functioning is replenished not only through evening sleep and napping but also when you engage with nature in a cognitive mode that is different from directed attention, something the Kaplans call fascination. The higher the fascination value, the greater the benefit. That’s why visiting Niagara Falls, the Grand

Canyon, or Yosemite's Half Dome is often described as breathtaking. Less intense nature experiences can still deliver fantastic benefits. If all that's convenient is a city park, playground, or backyard, try to appreciate the experience to the fullest. Leave your phone behind and become fascinated by the flowers in the garden, the hummingbird at the feeder, and other nuances that are easy to miss when you rush through life. Devote some time every day to immersing yourself in your natural environment in order to express your full humanity—and especially to decompress from the incredibly unnatural and highly stimulating environments that have become the new normal. Amazingly, research shows that you can even obtain restorative benefits from a simulation of nature, such as a screen saver, a poster, or a mini fountain at your desk.

- 3. Nap when you need to.** Your body experiences a natural dip in circadian functioning and an increase in homeostatic sleep drive around six to eight hours after awakening. For some people, the dip is mild or even unnoticeable. For those who are more sensitive, or who experience disturbances to evening sleep or have an insulin response triggered by a midday meal, the afternoon blues are enough to significantly lower energy, mood, and productivity. Dr. David Dinges, a sleep expert at University of Pennsylvania medical school, whose laboratory studies how sleep affects neurobehavioral, cognitive, immune, inflammatory, endocrine, metabolic, and genetic functioning, estimates that between 15 and 20 percent of the population is highly sensitive, calling them “closet nappers.” Dr. Sara Mednick, a Harvard-trained psychologist studying sleep at the University of California at Riverside and the author of *Take a Nap! Change Your Life*, estimates that up to 50 percent of the population is genetically

predisposed to napping. According to Dr. Mednick, when we go looking for alternative ways to keep alert, such as caffeinated drinks, we—“the Walking Tired”—suffer huge productivity losses.

What’s more, many anthropologists and historians observe that humans have long been habituated to, and may have some genetic aptitude for, biphasic sleeping habits; sleeping for one (long) phase in the evening and a second (shorter) sleep phase in the afternoon. This dynamic was believed to be the norm in prehistoric times, where evening sleep was likely routinely interrupted to tend to a fire, care for infants, or keep watch for danger. Biphasic sleep was also the norm up until the Industrial Revolution. A. Roger Ekirch, author of *At Day’s Close: Night in Times Past*, explains that the working class of the Middle Ages would fall asleep soon after dark, then naturally awaken in the middle of the night and enjoy what was essentially their only leisure time. Erkich’s detailed historical analysis of hundreds of diaries, court documents, medical books, and literature from centuries ago revealed that night was a time for sex, prayer, writing, interpreting dreams, visiting neighbors, or even petty crimes. Modern research on subjects deprived of light for weeks at a time reveals that humans seem to naturally drift toward a similar sleep pattern to the one described by Erkich.

This evidence suggests that today’s norm of a single sustained monophasic evening sleep period is a product of the industrial age more than genetics. Extended workdays that preclude napping, combined with artificially lit evenings that keep us awake long past sunset, conspire to make us tired enough to crash until morning. While it’s not likely society will transform to make polyphasic sleep the norm once again, you can do your best to optimize health in modern life by

committing to dark, mellow evenings and taking an afternoon nap whenever you experience even a slight decline in mood, energy, or focus during the afternoon. Extensive research, especially among peak performers such as NASA astronauts and elite athletes, confirms that naps deliver comprehensive improvements in alertness, productivity, concentration, memory, mood, metabolic functioning, and physical performance.

Have you ever felt “fried” during or after a hectic day of hyperconnectivity and multitasking? This aptly named feeling occurs when the sodium-potassium pumps that enable your brain neurons to fire their electrical impulses become depleted through excessive use. Maintaining an optimal ion balance is critical to efficient energy processing in all cells. In the brain, sodium-potassium pump operations account for 70 percent of total energy output. A twenty-minute nap is not too much to ask for anyone and constitutes sufficient time to help replenish and reboot those fried electrical circuits. Your reward when you return to work is a tremendous and immediate boost in alertness. That said, even a ten-minute nap has been found to deliver increases in energy and cognitive performance lasting for two and a half hours after the nap. Another study revealed that simply anticipating a nap can lower blood pressure! If you are feeling really trashed (perhaps from jet lag), battling a minor illness, or struggling in the aftermath of an extreme physical effort, a nap of ninety minutes will enable you to complete a full sleep cycle, as you do repeatedly overnight.

Whenever you feel the need to nap, try to find a quiet area away from your workplace and initiate some ritual behavior triggers that tell your brain and body it's nap time. Start by donning a quality eye mask to block out light, then launch a smartphone app with sounds of

ocean waves or a rainfall. If you can't fall asleep on cue, take comfort knowing that merely disengaging from peak cognitive functioning for a respite delivers substantial restorative benefits. Over time, you can expect to become more adept at nodding off and enjoying maximum cellular, hormonal, and physiological benefits. If you don't have a convenient napping location where you work, at the very least arrange for some do-not-disturb time and make sure you are able to rest your head on your desk, aircraft tray table, or other stationary object (support from your hands and arms is fine).

Unfortunately, there seems to be a lot of pushback about napping: many people claim they don't need naps or insist they can't fall asleep even when they try. I propose that we might be too tired to realize when we really need a nap—or at least a break from the computer screen. Sleep deprivation hinders assorted executive functions, such as self-awareness, impulse control, and the ability to resist distractions. A twenty-minute nap that could have set you up for a productive afternoon instead becomes twenty minutes wasted on clickbait and Instagram scrolling, followed by hours of slightly or severely diminished cognitive sharpness as you limp to the finish line of the workday.

What if you proactively added a nap to your daily schedule, perhaps in place of your routine stop at the coffee shop for a latte? Research suggests that making napping a habit can turn you into a happier person. In their bestselling parenting book, *NurtureShock*, authors Po Bronson and Ashley Merryman explain that insufficient sleep inhibits our ability to store and recall pleasant memories: “Negative stimuli get processed by the amygdala; positive or neutral memories get processed by the hippocampus. Sleep deprivation hits

the hippocampus harder than the amygdala. The result is that sleep-deprived people fail to recall pleasant memories yet recall gloomy memories just fine.” The idea is that your evening sleep won’t always be ideal, so napping is a great opportunity to shore up any transient deficiencies in optimum sleep. This makes you a more focused, disciplined, energetic, and hippocampusly happy person.

Increase General Everyday Movement

Our ancestors were in near constant movement all day long in order to thrive in a survival-of-the-fittest hunter-gatherer existence. When we move our bodies in various ways, we support the complex and synchronous interactions between organs and systems throughout the body that enable peak cognitive and physical performance. When we anchor our modern human butts on a chair for hours on end in the name of productivity, the vitality of the human organism gets severely compromised. This includes quick and significant declines in cognitive, metabolic, and musculoskeletal functioning.

Being still also sabotages your fat-reduction goals. As little as twenty minutes of sitting has been shown to cause a significant decrease in glucose tolerance and an increase in insulin resistance. Sitting for longer periods triggers a series of unfortunate metabolic events. Spending a full day at your desk results in a 50 percent reduction in the enzyme activity that converts triglycerides (the stored form of fat) into free fatty acids to burn for energy. As you learned from the discussion of the compensation theory, losing excess body fat is not a matter of eating less and working out more but rather of hormone optimization. It’s not about the calories that you burn during workouts, it’s about maintaining an active lifestyle to send the right signals to your genes. It takes climbing twenty flights of stairs to burn off the calories in one slice of bread, but when you build lifelong habits of movement instead of stillness—taking the stairs instead of the elevator—you send signals to

your genes to burn fat instead of sugar.

If you declare your workday to be too jam-packed to allow regular movement breaks, note that prolonged stillness causes drastically diminished cognitive performance and increases distractibility and fatigue. Studies confirm that spending a few hours at your desk during a busy morning results in a reduction in blood flow and oxygen delivery to the brain as well as a disruption in neurotransmitter signaling that invites mood swings and depression. Even more disturbing is the fact that a stillness-oriented lifestyle can result in long-term damage to the brain's temporal lobes, which are responsible for memory. Research has confirmed a direct link between inactivity and diminished brain functioning as well as elevated risk of dementia. A 2017 study conducted at UCLA revealed that senior citizens who fall short of a modest minimum activity level—four thousand steps per day—had thinner hippocampi, slower processing speeds, inferior working memory for quick decisions, and inferior memory consolidation compared to their active counterparts.

You can counteract brain drain extremely well by taking frequent movement breaks for walking and other activities. This has been found to be vastly more effective than cranking away for hours, then taking an extended break. Even a single moderate-intensity walk has been shown to boost production of the lauded *brain-derived neurotrophic factor* (BDNF). Nicknamed “Miracle-Gro for the brain” by Harvard psychiatry professor Dr. John Ratey, BDNF helps you build new neurons and improve the firing of existing neurons, increase blood circulation and oxygen delivery throughout the body, reduce depression and anxiety, and improve neuroplasticity. This describes the brain's ability to form new connections and pathways throughout life, making you more adaptable to everyday stress and inevitable change.

Prolonged sitting also causes an assortment of musculoskeletal and cardiovascular problems. Hip flexors and hamstrings shorten and tighten. Gluteal muscles are deactivated, making your balance and gait unstable during

exercise. The lack of engagement of the abdominal core muscles (which are constantly activated when standing, walking, and performing all manner of physical work) promotes an assortment of postural imbalances and puts excessive strain on the spine and back muscles.

Biomechanist Katy Bowman, author of *Move Your DNA, Don't Just Sit There*, and numerous other books about healthful movement, explains: “Cells are always responding to mechanical input via a process called *mechanotransduction*. When individual cells are unmoved or undermoved, they adapt to repetitive positioning by changing their cellular makeup and literally becoming sticky and stiff. Even those who are superfit can have certain muscles and joints with reduced range of motion and an actual hardening of arterial walls in certain areas; for example, sitting in a chair all day with bent knees.” It’s indeed possible to possess cardiovascular fitness (an aptitude for grueling endurance workouts) but have poor cardiovascular health, evidenced by an inability to efficiently deliver oxygen to all your organs and tissues.

Bowman promotes a “Nutritious Movement” concept that compels us to broaden our perspective beyond the pursuit of narrow fitness goals through traditional workouts on the track or in the gym. While there are many benefits to becoming fit or superfit, our *Homo sapiens* genes crave a life of constant movement and variation. Because most of us are obligated to sit with keyboard and screen to get work done, the objective is to minimize the negative effects of commuting, office work, and our propensity to indulge in screen entertainment during leisure time. You can do this by finding assorted ways to increase the frequency and variety of your daily movement patterns. Fitness freaks should pay special attention. Often people who follow a devoted fitness regimen and have lofty athletic goals are guilty of taking free license to be lazy outside of workouts instead of achieving a modest quota of general everyday movement.

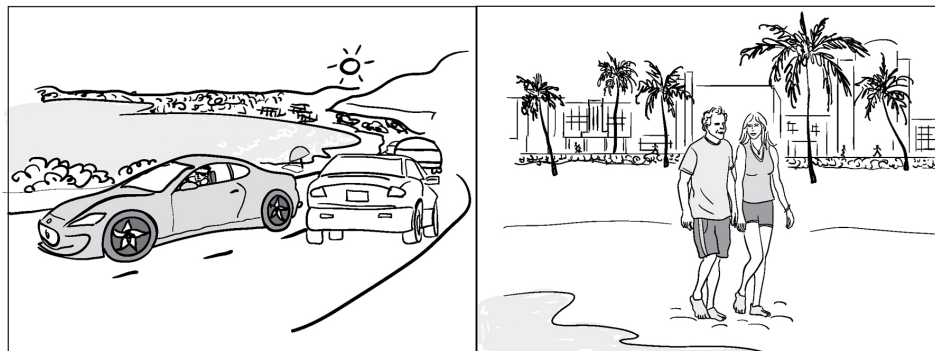
Just F-ing Walk

Just f–ing walk (JFW) is my way of expressing what should form the centerpiece of your daily movement objective. Walking is the quintessential human form of locomotion, and it has been disastrously neglected in modern life. Our primal ancestors walked for miles every single day as an integral part of survival. Dr. Loren Cordain cites research revealing that modern-day hunter-gatherers walk between 3.7 and nine miles each day in search of food, water, and wood. Mothers carry their children for the first four years, logging some three thousand miles. You may have heard the popular recommendation to take ten thousand steps (around five miles) per day? Americans average only half that, amounting to a paltry 2.5 miles per day. This is below what’s needed to avoid the label “sedentary.” Americans are lagging behind countries such as Australia and Switzerland, whose citizens walk nearly twice as far as we do each day. We are certainly far more inactive than our parents’ and grandparents’ generations: after all, traditional Amish farmers walk nearly four times more than their high-tech counterparts today.

While the physical health risks of sedentary living are well publicized, there are also intangible costs when we marginalize walking in modern life. Granted, it’s tough to imagine following in the footsteps of Henry David Thoreau, who famously stated, “I cannot preserve my health and spirits, unless I spend four hours a day at least—and it is commonly more than that—sauntering through the woods and over the hills and fields, absolutely free from all worldly engagement.” However, we can all reflect on the pointed observation from author Rebecca Solnit in her book *Wanderlust*: “Walking as a cultural activity, as a pleasure, as travel, as a way of getting around, is fading, and with it goes an ancient and profound relationship between body, world, and imagination.”

Walking is a topic near and dear to my heart, because I experienced a profound revelation after my move from Malibu to Miami Beach. As you may have heard, nobody walks in LA. This is particularly true in Malibu, where the busy Pacific Coast Highway—wholly unfit for pedestrians—is the

obligatory route to and from anywhere. My high-density high-rise living in Miami Beach offers the opposite experience. Carrie and I walk everywhere, to the tune of at least five miles each day, not counting our designated workouts. I rarely drive unless I'm headed out of town or catching a ride home via Uber after walking to the supermarket. I feel more connected to my community than I ever did during my car-centric decades in Malibu. I notice that I can process emotions and complex work challenges better when I'm on the move. It also seems like I have a higher baseline of cardiovascular fitness, better posture, more flexibility, and better core stability from which to launch all my other workouts, all thanks to my daily walking habit.



Pacific Coast Highway (PCH), Malibu, CA

Pedestrians? Can't Happen!

South Beach, Miami, FL

Walking Wonderland!

Workday Breaks

Your brain is capable of focusing intently on a peak cognitive task for approximately twenty minutes before your cognitive processing power begins to decline. Consequently, make an effort to briefly get away from your screen and move your body a bit every twenty minutes. You will get a boost of energy even if you stand up briefly to balance on one leg or do a few of Katy Bowman's "wall angels" (like snow angels, but those sweeping arm movements are made against and along a wall), which help counteract all that hunching over the keyboard. To combat eye strain, try the optometrist-recommended 20-20-20 strategy: take a screen break every twenty minutes to gaze at an object twenty feet away for twenty seconds. Do this while you complete a set of twenty

deep squats—the Sisson 20-20-20-20!

Every hour, take a more structured five-minute break from sitting and your screen, ideally getting outside for a quick stroll or making a brief but intense physical effort at something (for example, climbing a few flights of stairs or doing twenty deep squats). I like to get outdoors and take a few passes on my slackline (a wide, loose, low tightrope) to help “balance” my time in the office. Whenever possible, I take phone calls outdoors while walking around the neighborhood or doing gentle stretches or strengthening exercises at home. Please also strive for a formal midday break of thirty minutes or more to completely disengage from technology and your workplace environment and get some much-needed mind and body restoration. This might entail a nap, a workout, or a stroll through the park to watch the birds. If you spend lots of evening leisure time in front of a screen, take breaks between episodes to bust out a five-minute foam-rolling session, micro workout, or yoga sequence (great ways to trigger parasympathetic functioning). Or take the dog for a lap around the block.

Workplace Variation

The increasingly popular stand-up desk experience is a great way to engage the muscle groups that go soft while sitting as well as increase your metabolic rate by 10 percent. However, Katy Bowman warns that merely switching from sitting to standing is not the solution, because you are still maintaining fixed positions for too long. This also applies to ergonomic chairs and custom-fitted workstations. According to Bowman, “They keep you more comfortable, so you remain sedentary for much longer before noticing the adverse effects!” Instead, strive to achieve maximum variation in the position and movement of your body throughout the workday. Bowman recommends arranging to spend work time sitting on the floor, kneeling, sitting on an exercise ball, and standing up in addition to sitting on a chair. Get a pull-up bar or at least regularly reach up and touch or hang a bit on the doorway

whenever you walk through. If you're too short to reach a door frame, bend at the waist and reach forward to grab and pull on your desk, counter, or other stable object. "A dynamic work environment helps your body assume many different geometries throughout the day, which loads your cells differently and keeps your whole body, and the trillions of cellular bodies that comprise it, moving more and moving better," explains Bowman.

A high-tech hydraulic unit like the VariDesk is a great way to frequently alternate between sitting and standing. You can also use an ordinary footstool or stack of boxes to quickly elevate your keyboard and monitor. I use Focal Upright's Locus workstation, where I can stand and work at a slightly angled desk (that looks like a drafting table) but also have the option to lean back into a small pogo stick-style seat and place my feet on an elevated slanted board. While standing, you can bring in a stool or chair to elevate either leg, varying the load and engaging different muscles. You can mix things up in any chair as well by alternating between sitting on the front edge with a straight spine and sliding all the way to the back to straighten your spine against the backrest.

Taking into account any constraints at your workplace, see if you can arrange to sit on the floor or use a BOSU ball—a semicircular inflatable plastic ball with a flat bottom. Put your laptop or keyboard and monitor on a coffee table, bench, or stool and type away! If you can't do this at work, at least get a "low desk" for home. Using the wonderful terrestrial resistance provided by "ground reaction force" (your body weight in contact with the floor), you can alternately compress and stretch muscles and connective tissue all over your body. Consider how lowering yourself into a squatting position restricts blood flow along the tibialis anterior (front of the leg) until you feel the burn and exit the stretch, thereby achieving a "rebound" effect that has been shown to speed tissue healing and improve tissue integrity.

I'm so enamored of this subject that I coauthored a couple of scientific papers with performance and rehabilitation

conditioning scientist Matt Wallden about the health benefits of assuming archetypal human resting positions. Search YouTube for “Mark Sisson archetypal rest postures” to learn how to long-sit, high-kneel, low-kneel, side-sit, and sit cross-legged to achieve a passive stretching and strengthening effect while working at a low desk. Use these ideas as a baseline, but realize that anything goes in pursuit of variation. When you can partner creative workstation efforts with frequent movement breaks throughout the day, you will quickly notice an improvement in focus as well as in metabolic and musculoskeletal functioning. You’ll also notice that you’re less distractible and don’t feel fried at the end of the day. When I started using a stand-up desk, around 2010, I experienced an immediate improvement in the chronic hip flexor stiffness that had plagued me for decades despite devoted stretching. If you spend many hours each day in front of a screen, strive to achieve the most dynamic, least destructive experience you possibly can.

Yoga, Pilates, Tai Chi

If you can get into the groove of regular instructor-led classes in formal disciplines such as yoga, Pilates, or tai chi, that’s fantastic. If you’re too busy to make it to hourlong classes, try picking and choosing some of your favorite moves and piecing together mini routines you can do at home. YouTube is a good resource to help you learn the basics of do-it-yourself movement sessions. Search YouTube for “yoga sun salutation” to learn a series of graceful full-body movements that even a novice can master quickly. Yoga’s flowing movement sequences, along with its intentional inhalations on stretching and exhalations on compressing, deliver a meditative mind-body benefit. Depending on your approach, you can achieve a purely relaxed parasympathetic session or a fantastic cardiovascular and musculoskeletal workout. Enthusiasts of hot yoga enjoy additional detoxification, immune strengthening, and mood-elevating benefits generated by the body’s adaptive response to the stress of exercising in

the heat.

Tai chi is practiced by millions of people every day across the world and has scientifically validated health benefits. Dr. Peter Wayne, author of *The Harvard Medical School Guide to Tai Chi*, calls tai chi “meditation on wheels.” He explains, “You’re getting all the cognitive pieces you might get from meditation—mental clarity and focus and positive thoughts and lower stress—but you’re also getting physical exercise.” Dr. Michael Irwin, psychiatry professor and director of the Mindful Awareness Research Center at UCLA, has published numerous studies about the health benefits of tai chi. A group of breast cancer survivors with insomnia who practiced tai chi experienced improvement in their levels of depression, fatigue, and inflammation—important in reducing their risk of cancer recurrence. Dr. Irwin explains that tai chi helps moderate sympathetic nervous system activity, delivering the incidental benefit of improved cardiovascular functioning at a level similar to walking or jogging. For the elderly, tai chi helps improve the important longevity factors of balance and mobility. It’s sobering to realize that the US Centers for Disease Control lists falling as the number one cause of injury and death in Americans over age sixty-five. Tai chi has also been shown to alleviate symptoms of arthritis and improve heart and kidney functioning. Search YouTube for “tai chi for beginners” and find some great ways to get started.

Foam Rolling

Foam rolling—using a cylindrical foam or rubber tube to massage your muscles—counts toward your movement objectives and is a great way to wind down after workouts or a stressful day. Technically called self-myofascial release, rolling the large muscle groups of the body increases oxygen delivery and blood circulation and enhances the functioning of the lymphatic system. Even a brief session of five to ten minutes with a specially designed foam or rubber tube or rubber ball boosts circulation throughout the rolled muscle groups for up to thirty minutes afterward. Activating

lymphatic functioning provides an important boost to the immune system, because the lymphatic system helps speed the removal of toxins and waste products from muscles and tissues throughout your body. The added benefit of foam rolling is that it quickly stimulates parasympathetic activity for a beautiful relaxation experience. This happens because the discomfort associated with applying pressure through tight spots causes painkilling endorphins to flood the bloodstream. You get instant relief from aching muscles and a calming sensation in your central nervous system.

For an effective session, roll along the large muscle groups of the upper and lower body, starting from the pelvis and rolling either up or down, away from your center. When you find a particularly tight spot, known as a trigger point, isolate it with extra pressure for an extended period of time. Working through a trigger point can help relieve referred pain—that is, pain felt in a part of the body resulting from an injury or imbalance in a different area. For example, rolling along the side quadriceps (vastus lateralis) can address painful IT band syndrome, in which pain occurs near the knee joint. Skip rolling on joints and connective tissue and focus on the big muscles. You can even roll through your abdomen, giving your organs an effective massage and a boost in circulation and oxygen. While it may be hard to imagine, you should be able to roll with deep pressure along entire muscle groups all over the body without experiencing pain. I know—try telling that to the calf muscles! With devoted practice, you will make tremendous progress in your ability to withstand deep pressure and should notice an improvement in mobility and a reduction in injuries when you engage in activity.

Active Leisure (Dancing, Gardening, Sex, Home Improvement Projects, Golf, Other Low-Energy-Expenditure Sports, and Sex)

You may have seen those charts showing that gardening for an hour burns three hundred calories, while a medium Jamba Juice and a PowerBar deliver around six hundred calories—

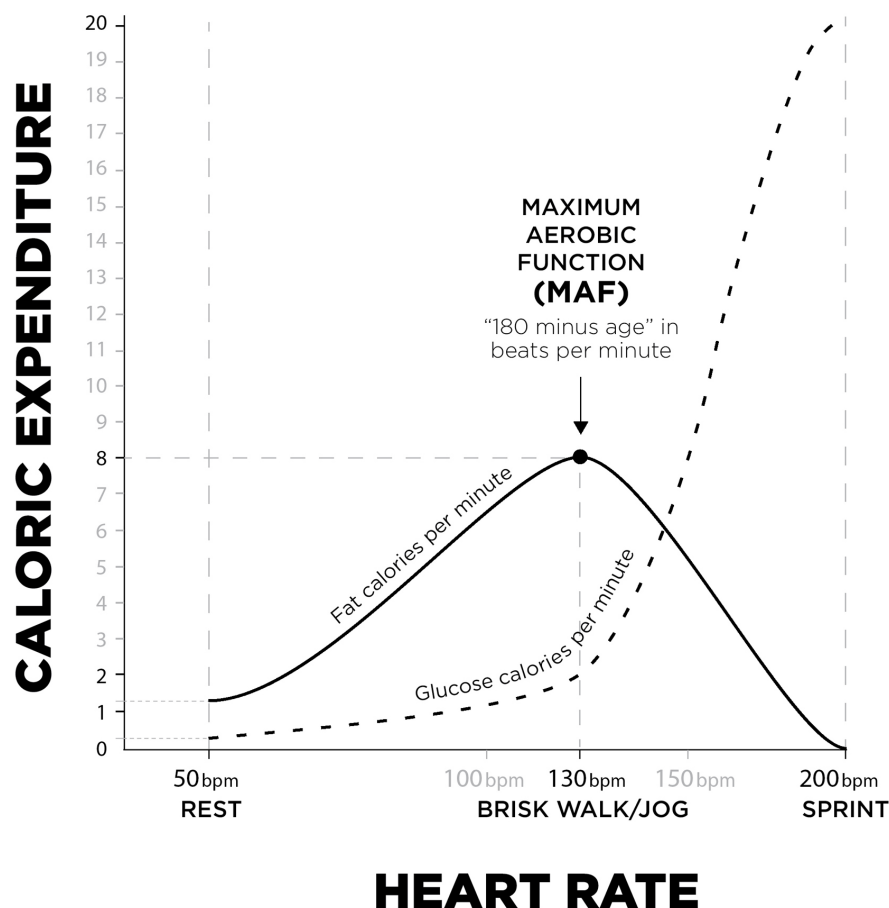
and feel the urge to head right over to a sweaty, grueling boot-camp class that burns seven hundred calories. But as you've learned, when you're trying to improve your health, the emphasis must be placed on hormone optimization instead of calorie tallies. In this context, a variety of movements make an excellent contribution to the ultimate goal of hormone optimization. And there are many additional benefits to moving around outdoors, in open space, including breathing fresh air and getting some much-needed sunlight. JFW and anything you can do beyond that will help improve your balance and spatial awareness—which are important for all manner of fitness activities, for everyday home chores, and as protection against the high-morbidity risk of falling.

Even if you're engaging in active leisure indoors, you are still enjoying many benefits and achieving a critical counterpoint to days of hyperconnectivity. Little things like straightening up the garage or throwing the ball for the dog in the yard help improve balance, spatial awareness, mobility, and flexibility. I find that routine household chores can have a meditative effect in which the brain can relax into repetitive mind-body behaviors without the intensity that's demanded when you engage in peak cognitive tasks. When you realize that a life of near constant movement is essential to your humanity as well as a necessary component of metabolic flexibility, peak physical and cognitive performance, happiness, and longevity, it makes it easy to get moving.

Comfortably Paced Cardiovascular Workouts

By being sedentary and living life primarily indoors, we have eliminated many natural opportunities to get cardiovascular exercise, so it's important to engage in two to five hours per week of structured cardiovascular workouts in the activity of your choice: walking, jogging (if you are really fit), bicycling, swimming, participating in water sports such as stand-up paddling (my personal favorite!), and using cardio machines in the gym. The most important element of these sessions is that

you exercise in the aerobic heart rate zone. This entails a *very* comfortably paced workout that emphasizes fat burning, supports general health and immune functioning, and leaves you feeling refreshed and energized at the end instead of fatigued. Dr. Phil Maffetone, author of *The Big Book of Endurance Training and Racing*, is regarded as a pioneer in fat-adapted endurance training and has coached many world champion endurance athletes. His “180 minus age” formula identifies the heart rate (180 minus age in beats per minute) corresponding with your maximum aerobic function (MAF). For example, a fifty-year-old would calculate 180 minus 50, or 130, for her MAF heart rate in beats per minute. This is the heart rate where you are burning the maximum amount of fat calories per minute, with a minimal amount of anaerobic stimulation or glucose burning.



In this example, the maximum number of fat calories are burned at a heart rate of 130 beats per minute. Increasing the heart rate and picking up the pace would obviously result in

more calories being burned per minute, but a rapidly increasing percentage of them would come from glucose rather than fat. At your MAF heart rate, the effort is surprisingly easy, so that most exercisers of all ability levels routinely exceed MAF by ten, twenty, or even thirty beats at a typical workout. This is particularly true if you participate in instructor-led group classes at the gym or join social running and cycling groups on the road. At these higher heart rates, you experience the familiar perceived exertion levels, and the workout can be described as medium to difficult. These sessions invigorate you and give you a sense of satisfaction with a job well done, but they also generate a bit more stress hormones and cellular waste products and require a longer recovery time. Working at this elevated heart rate also compromises your metabolic flexibility goals because it promotes glucose burning—both during the workout and around the clock. It's not about burning more calories by going faster; rather, it's about burning mostly fat while you work out so you can improve your fat metabolism at rest.

Please understand that individual workouts that exceed MAF heart rate are no trouble to complete, and going a little or a lot harder than MAF once in a while can prompt a desirable fitness adaptation. The problem comes when exceeding MAF becomes the norm, because this almost always leads to breakdown, burnout, illness, and injury. By slowing down and conducting workouts at or anywhere below your MAF heart rate (remember, all manner of everyday movement delivers valuable cardiovascular and fat-burning benefits), you increase energy and alertness all day long, boost immune functioning, optimize hormonal functioning (particularly the reproductive hormones testosterone and estrogen, which are so sensitive to overstress patterns), and promote neurotransmitter balance for better mood stability, concentration, and a baseline happy disposition. By contrast, you may know from personal experience that overly ambitious workouts give you an endorphin buzz for a couple of hours afterward but often prompt afternoon blues, sugar cravings, evening exhaustion, and the previously mentioned cellular destruction and

ammonia toxicity in the ensuing days.

Disciplining yourself to conduct almost all your cardio workouts at MAF heart rates works for everyone, from novices to hard-core athletes with ambitious athletic goals. A novice who associates exercise with suffering will be pleased to discover that properly paced workouts can be enjoyable and energizing. Competitive types should note that the training patterns and performances of elite athletes in every endurance sport for the past sixty years have proved that slowing down helps you go faster on the racecourse. This is because aerobic training allows you to continually improve your aerobic capacity without the interruptions of high-stress workouts that cause cell destruction, suppressed immune functioning, hormone imbalances, and extended recovery times.

**THE MAF TEST TO MEASURE AEROBIC
IMPROVEMENT, PROTECT AGAINST
OVERTRAINING, AND KEEP YOU
FOCUSED AND MOTIVATED**

For motivated types who have difficulty slowing down, obtaining tangible proof of your fitness progress can help keep you on track. The best way to quantify aerobic improvement is to regularly perform a maximum aerobic functioning (MAF) test. (Note: You'll conduct this test on day 2 of the 12-Day Turbocharge.) While the test is not strenuous, improving your speed at a comfortable aerobic pace obviously improves your competitive potential in any activity requiring a modicum of endurance—i.e., virtually every athletic endeavor! If you deliver a slower time in an MAF test, this is a strong indication that you are suffering from overstress or overtraining patterns and require more rest and recovery.

The MAF test entails timing yourself over a fixed course at a fixed heart rate and repeating the exact same protocol every six weeks or so to track improvement or regression. Choose the activity of your highest competency and preference, whether it's jogging, cycling up a hill, or exercising on cardio machines that measure output in speed or distance. You can use a stationary bike, a rowing machine, an elliptical machine, or—my personal favorite—a VersaClimber. For the most accurate results, choose a distance or course that takes at least ten minutes to complete. This might involve jogging four to six laps around a running track, cycling from the base of a hill to a specific landmark, or using a cardio machine to achieve a specific measured performance. Ten minutes is sufficient for a novice, while experienced athletes can choose a longer duration. Try to maintain a heart rate as close as possible to “180 minus age” in beats per minute for the entirety of the test. Your heart rate is bound to bounce above and below that number a bit; do the best you can to regulate your pace throughout. Hint: this means you will likely have to slow down a bit toward the end to ensure that your heart rate (not your pace) is consistent.

Regularly performing the MAF test will keep you honest and committed to the big-picture objective of steadily building your aerobic capacity without the interruptions caused by high-stress workouts that require extended recovery time. Building aerobic capacity requires extreme patience and restraint: you must resist the temptation to push the pace in pursuit of a shortcut to fitness breakthroughs. Having quantifiable proof that you are getting faster and more aerobically efficient will help you see the light at the end of the tunnel.

You'll need to use a wireless heart-rate monitor

with a chest transmitter to ensure the most accurate readings over time. This technology is superior to the pulse meters on the Apple Watch and other devices as well as to the pulse trackers built into treadmills and other cardio machines. Polar is the leading brand of wireless heart-rate monitors, and basic models like the Polar FT1 can be found online for \$50 to \$75. Get your unit as soon as possible and become familiar with it so you'll be ready during the Turbocharge. Feel free to perform an MAF test at your earliest convenience, because this will give you another comparative data point in addition to the Turbocharge tests.

Don't be dissuaded by the misdirected competitive energy that many recreational performers exhibit during training, pushing themselves to the point of breakdown. Consider the example of Eliud Kipchoge, from Kenya, a world and Olympic champion marathoner who broke the unfathomable two-hour-marathon barrier in 2019. Kipchoge published his training log on the internet for all to scrutinize, and the insights were astounding. Veteran observers were shocked to discover that Kipchoge runs well within his capacity at virtually every workout. Much of his training is done at around 80 percent of maximum effort (very similar to the MAF calculation) with extremely minimal variation from week to week. Even when pushing the absolute limits of human endurance, Kipchoge avoids the common crash-and-burn patterns of exhaustion, overtraining, illness, and injury typically experienced by other endurance runners.

One young friend of mine, an accomplished American collegiate runner with a sub-four-minute mile to his credit but still well below international elite caliber, was astonished to discover that his big workouts were tougher than those of the greatest endurance runner of all time! The next time you are doing a jog-walk and feeling frustrated that you are hardly getting a workout, yet your heart-monitor alarm is beeping at your aerobic max, consider that in relative terms, you are

pushing your body harder than an elite athlete does. Remember, pushing hard more than occasionally is not only unnecessary but also highly counterproductive to your fat-burning goals and hormonal health. Slow down, burn fat, have fun, live awesome!

Conduct Brief, Intense Workouts

We have a genetic imperative to challenge our bodies on a regular basis with intense bursts of muscular strength and all-out sprinting. These types of efforts—brief in duration and explosive in nature, elicit a comprehensive adaptive response in organs and systems throughout the body. You become physically stronger, more resilient to all forms of stress, accelerate fat metabolism around the clock, build or preserve lean muscle mass, increase bone density, optimize hormonal and neurotransmitter functioning, grow more brain neurons, stimulate mitochondrial biogenesis, enhance the functional capacity of your organs to operate above their baseline (a.k.a. your *organ reserve*, a key longevity attribute), strengthen your cardiovascular system, enhance immune functioning, and essentially escape from the accelerated demise into feeble old age that is the norm today.

Unfortunately, the comforts, conveniences, and luxuries of modern life have us neglecting this key component of health, vitality, disease prevention, and longevity more than ever. Because modern humans no longer face the major environmental selection pressures that drove human evolution—starvation and predator danger—evolution has officially ceased, and modern humans have literally gone soft. While none of us is interested in battling a mighty woolly beast for tonight's dinner, we must find ways to approximate the challenges that made our ancestors lean, strong, fast, and resilient in order to avoid the atrophy that we erroneously associate with chronological aging today. While chronological aging will always have some influence on declining peak performance over the years, honoring the natural law of “use it

or lose it” can help you greatly neutralize the impact of your birthday candles and ensure that you remain strong and powerful throughout life.

While many fitness enthusiasts do well with cardiovascular exercise (provided they slow down into the MAF heart rate zone!), it’s less common to perform the brief, explosive efforts that deliver perhaps the most time-efficient return on your health-boosting investment. The good news is that you can transform your physique and your physiology by doing just a couple of deliberate strength workouts a week, lasting between ten and thirty minutes; a brief sprint session each week (with just one to two minutes of maximum effort in total); and a weekly sprinkling of micro workouts, which are rapidly becoming the most exciting emerging trend in fitness.

It’s time to do away with any doubts you may have about going hard and acknowledge that explosive efforts are essential for everyone, not just bros in muscle shirts. Research shows that senior citizens have the ability to make faster incremental gains in strength and power than any other age group and can attain strength standards and sex hormone levels in blood tests that are similar to those of unfit people who are decades younger. Numerous studies of large population groups reveal a direct correlation between longevity and attributes such as grip strength, squat competency, and push-up competency. Arguably, the older we get, the more we stand to gain from intense exercise, because it staves off the most prominent ravages of aging—*sarcopenia* (muscle loss) and declines in balance and motor control, which lead to falling.

Integrating intense exercise into your lifestyle can be simple and, most important, sustainable. First, intense workouts can be scaled to your current level of fitness. Strength training can use your own body weight as well as low-tech stretch bands and tubes. Sprinting can be done with no-impact or low-impact exercises, although maximum benefits come from weight-bearing sprints. Choose an entry point that seems comfortable to you and try new things as you

build confidence over time.

Most important, your workouts must be structured correctly. You'll get the most benefit from workouts that are less than thirty minutes in duration and feature brief, explosive efforts with sufficient rest between them. This is how you trigger a desirable temporary fight-or-flight hormone surge for comprehensive adaptive and antiaging benefits. This contrasts with the popular HIIT (high-intensity interval training) format characteristic of most group exercise classes, endurance running clubs, instructor-guided video programming (such as stationary cycling and other home-based workouts), and team sport practices. HIIT workouts typically involve an excessive number of work efforts that last a bit too long with insufficient rest between them. As you learned from the discussion of liquidating your assets (see [here](#)), the cumulative fatigue from the intervals and the extended duration of the workout can often result in cellular destruction, chronic glycogen depletion (and major sugar cravings), and exhaustion. Following are some suggestions for effective strength and sprint workouts.

Strength Training Options

There are many strength training methods that can produce excellent results, provided you adhere to some big-picture recommendations. The best movements are sweeping, full-body functional movements that recruit numerous large muscle groups—those that correspond to real-life physical activity. Examples include squats, dead lifts, leg presses, box jumps, push-ups, pull-ups, overhead presses, rope climbs, kettlebell swings, sweeping movements with cables, straps, or stretch cords, and much more. By contrast, working isolated muscle groups within a confined range of motion using a dumbbell or a machine is certainly better than sitting at home, but you'll enjoy more sport-specific fitness, antiaging, and injury-prevention benefits when you perform compound movements. Whatever type of exercise you choose, always strive to execute the explosive movements with excellent form. If you notice your technique or explosiveness

compromised by cumulative fatigue, it's time to end the set and eventually end the workout.

Choose workouts that you enjoy and that are convenient and sustainable. Home fitness systems and machine circuits at the gym provide a measure of safety and ease of use for novices. Lifting free weights on a barbell requires precise technique and carries a relatively high risk of injury, causing many people to avoid it. However, people who get serious about lifting are enthralled by the wide-ranging physical and psychological benefits of living a strong, confident, resilient life. Start with some basic two-handed kettlebell swings, and you may quickly become interested in doing more heavy lifting. If you want to try the popular CrossFit scene or other branded fitness programs such as Orangetheory Fitness or F45 Training, perhaps you'll form a community bond in addition to getting in top shape.

Be advised, however, that a typical instructor-guided group workout lasts a bit too long for my liking and invites injury, burnout, and attrition. I know it's uncomfortable to imagine bailing out of a high-energy group class at the two-thirds mark, but I urge you to take full responsibility for your workout decisions and have the courage to follow your intuition. If you notice your form breaking, muscle groups tightening, concentration wavering, or a spike in your rate of perceived exertion in the latter stages of a group workout, cut it short and realize that you have very likely hit the sweet spot for workout effectiveness. When I was an elite marathoner and triathlete, my peers and I tried to honor the mantra "It's better to be 10 percent undertrained than 2 percent overtrained."

Resistance bands, tubes, and cords offer an easy, convenient, and affordable way to conduct a great strength training session at home or when traveling. You can perform all manner of resistance exercises with less risk of muscle soreness and injury than you incur when lifting heavy weights. Everything will fit into a small basket (or backpack when traveling), and each item costs less than a month's gym membership. The StretchCordz product is made with rubber

tubing of various thicknesses, featuring an attachment strap in the middle and handles on both ends. Mini bands (Perform Better is a leading brand) strap around your ankles and offer an excellent way to activate your long-lost gluteal muscles and get your world rocked in less than a minute. The X3 Bar uses thick resistance bands to facilitate an assortment of full-body exercises that simulate lifting a heavy bar: squats, dead lifts, bench presses, overhead presses, and more, but with less risk of injury and muscle soreness. In all these examples, you can get products of various thicknesses (i.e., degrees of resistance) to align with your experience level.

I'm a huge fan of both gym machines and free weights, and my neighborhood gym has been a favorite social hub for me for decades. I work really hard a couple of days a week in thirty-minute sessions featuring compound movements such as heavy squats and dead lifts combined with multiple sets of pull-ups. I visit the gym on other days to socialize, pedal the stationary bike, and do exercises for flexibility, mobility, and injury prevention that aren't particularly strenuous. Even when my schedule is crazy with travel or other activities that disrupt my routine, I find it ridiculously easy to maintain my strength, power output, and ideal body composition, including single-digit body fat and sufficient lean muscle mass, even in my sixties. I'm certain this is because I organize my training schedule correctly, regulate my competitive intensity, and never exhaust myself in the heat of the moment—stuff I often did as a younger athlete.

Primal Essential Movements

The easiest entry point to weight training is to start lifting your own body weight in what I call the primal essential movements (PEM): push-ups, pull-ups, squats, and planks. These are the quintessential human movements that we have been doing some variation of for a couple of million years. Collectively, they work every major muscle group using full-body functional motions that have direct application to the activities of everyday life. Don't worry—if you can't do a

pull-up or a deep squat right now, my system has easier progression exercises. The method can be scaled down for a true beginner, or degrees of difficulty can be added for fitness experts. You can do chair-assisted pull-ups, pole-assisted squats, or knee push-ups, gradually increasing competency as you progress to being able to complete a proper pull-up or deep squat. Search YouTube for “Mark Sisson primal essential movements” to get a demonstration of how to do each baseline movement and progression exercises correctly.

Micro Workouts

I contend that micro workouts are one of the most exciting fitness breakthroughs of the century. I know the century is kinda young, but micro workouts are a fantastic antidote to the hazards of sedentary daily routines. These exercises are brief bouts of explosive effort that you integrate gracefully into your routine at home or at the office. They are easy to incorporate into daily life, don't require an expert level of fitness, and provide relief from the disturbing trend in mainstream fitness toward prolonged workouts that are depleting and exhausting.

The rules are flexible—a micro workout can be anything that gets you up and moving. For example, twenty deep squats at your desk, a set of pull-ups on the pull-up bar hanging in your closet, a trip down the hall and back with mini bands around your ankles, or some kettlebell swings in your yard whenever you take out the garbage. You can also do micro workouts oriented toward flexibility, mobility, and balance. For example, you can do a sequence of dynamic stretches, karate kicks, leg swings, and lunges. Hold on to your desk or a lamppost in the parking lot at first and try to progress to the point where you can execute difficult one-legged maneuvers in open space. If you are having a hectic workday, jump up from your desk, scramble down a few flights of stairs, do a set of dips on a courtyard bench, and hustle back upstairs to your office. You will gain an immediate boost in cognitive function from increased blood flow and oxygen delivery to the brain. You'll also spike neurotransmitters that elevate mood, improve

focus, and turbocharge fat burning for hours afterward. Little efforts indeed make a huge cumulative difference over time. Dr. Michael Roizen, coauthor (with television personality Dr. Mehmet Oz) of *You: The Owner's Manual* and leader of the Cleveland Clinic Wellness Institute, reports that simply jumping up and down twenty times every morning and every evening has been shown to help preserve bone density in the spine and the lower extremities.

Instead of feeling time pressure and a sense that you “need” to squeeze three trips to the gym per week into your packed schedule, just commit to taking breaks from prolonged periods of stillness and performing a few micro workouts every day. Integrate some carefully considered incentives, rewards, and benchmarks that keep you accountable. Create visual cues, such as a kettlebell placed en route to the garbage bin, a pull-up bar in a doorway, or StretchCordz and ankle bands left in plain sight instead of in a drawer. Put some incentives in place, such as breaking for lunch (or should I say break-fast?) only when you have completed a stair sprint or some exercises with the bands and cords. Put a sticky note in your office as a reminder that you can't leave for the day until you complete fifty deep squats. On the other side of the coin, I also like to use micro workouts as a reward for reaching milestones with my peak cognitive tasks. Finish writing that presentation, then head outside for a few kettlebell swings! If you're going to binge-watch your favorite Netflix series, implement a rule that you must perform a micro workout between each episode.

The suggestion to use visual cues and prop placement may seem simplistic, but these things can have an extremely beneficial psychological impact. Lindsay Taylor, PhD, my Primal Blueprint colleague and coauthor of *The Keto Reset Diet Cookbook* and *The Keto Reset Instant Pot Cookbook*, a social psychologist by training, explains.

All our behaviors are triggered by something, whether we're conscious of it or not. We can improve our goal-setting and decision-making capabilities by optimizing

our environment and making behavior triggers obvious. Keeping your fitness gear out in the open plants a suggestion in your brain that exercise is important, convenient, and accessible right now. It still takes discipline to get started, but once you start, you'll most likely finish. Even a small obstacle, such as having to unpack or set up fitness gear, can make you less likely to do it. Similarly, leaving a plate of cookies on the table makes you more likely to grab one!

Micro workouts deliver numerous distinct and awesome benefits: first, when you add up the energy expenditure over a long time period, you obtain an incredible cumulative training benefit. Do a single set of twelve pull-ups four days a week, and you have hoisted your body weight over a bar 2,500 times in a year! Second, your efforts raise the baseline from which you can launch your ambitious full-scale workouts or athletic competitions without compromising your readiness for these sessions. If you include flexibility and mobility movements in your micro workouts, you get the added benefit of reducing injury risk when you conduct a challenging session. Search YouTube for “Brad Kearns morning routine” to see a sequence of leg flexibility and mobility and core strengthening moves he designed to support his sprint and high-jump workouts.

Third, micro workouts can get you fit or even superfit without prompting the stress-hormone production and cellular depletion that occur when you conduct prolonged and exhausting workouts at the gym. Fourth, your micro workouts help you achieve the health objectives of increasing general everyday movement and taking frequent breaks from peak cognitive tasks. Sets of deep squats or pull-ups are a great complement to a midday stroll around the office courtyard or a walk with the dog around the block. Develop the habit of busting out for a minute here, a minute there, and for six minutes now and then during your busy day. Even if you claim to be too busy, you must acknowledge that the improvements in cognitive function prompted by micro workouts make the time investment worthwhile.

If you are already fit and have a good strength-training routine going, you should have no problem grabbing a heavy kettlebell for some swings or doing a set of dead lifts without a formal warm-up. If you are at a basic competency level with strength training and/or spend a lot of time sitting during the day, take a minute or two to walk around and do a few warm-up moves, such as working with skinnier Stretch Cordz or doing some half squats before you go deep into a full squat. The fitness “truism” that you need an elaborate and prolonged warm-up before a workout makes sense only in the context of our highly sedentary daily lives. As Dr. Art De Vany likes to say, “The lion doesn’t have to stretch before chasing his prey, and neither should you.”

In recent years, I’ve noticed a phenomenal improvement in my lifelong morning creaking and cracking, general everyday stiffness, and the need for an extended warm-up before my Ultimate Frisbee matches. This is a pleasant surprise for someone in my age group, because it seems that I’ve halted a steady decline in my flexibility and mobility, which was happening over decades. I attribute my improvement to several things: switching to a Focal Upright desk during the workday; spending more time in my archetypal resting positions while reading, watching TV, or taking phone calls; integrating micro workouts into my workday with great devotion (including dynamic stretching and balancing moves on my beloved slackline); taking thirty grams of collagen peptide supplements for several years running; and eradicating all refined seed oils from my diet for two decades running. I can’t say I’m bouncing around the house like a gymnast or gracefully holding difficult yoga poses—my running odometer has too many miles on it to allow that. However, I feel more nimble, energetic, springy, and athletic thanks to these practices, which are independent from my longtime devotion to athletic training.

It’s time to reframe your notion of what it means to live a healthful, fit lifestyle. It’s less about hitting arbitrary mileage goals or maintaining a stellar attendance record at the gym

than it is about movement frequency and variation all day long. Following are Katy Bowman's insights on the matter.

Adapting your body to move more is actually pretty easy. Adapting your life to accommodate more movement is more challenging, because we live in an overwhelmingly sedentary culture. But just as you can build muscles for squatting or walking or hanging, you can build your "making time for movement" muscle. The rewards are so immediate and plentiful that the effort will feel worth it. The more you can invite your friends and family along with you, the easier all-day movement will be. We were built to move frequently, move in many different ways, and move with others.

We have movement frequency, movement variation, and "movement accuracy," a term I first heard from former US Olympic 1,500-meter runner Michael Stember when he was teaching recreational enthusiasts how to run with proper technique. When doing anything from walking down the street to performing magnificent athletic feats, be mindful of exhibiting good posture and maintaining a balanced center of gravity. Cultivate a straight and elongated spine when standing, sitting, lying down, and engaging in all manner of athletic movement. Engage your core at all times to provide a stable base for your extremities—a bit while standing and more intently while lifting weights or performing an athletic move. If you have nagging back pain, muscle weakness or imbalance, or poor flexibility, learn more about movement accuracy from books such as Esther Gokhale's *8 Steps to a Pain-Free Back* and Dr. Kelly Starrett's *Becoming a Supple Leopard* as well as Katy Bowman's *Move Your DNA* and *Dynamic Aging*.

Sprinting

Sprinting is the ultimate primal workout, honoring our ancestors' need to summon occasional all-out bursts of energy that for them often had life-or-death consequences. Sprinting

can take place during high-impact running on flat ground, lower-impact hill or stair running, and low- or no-impact activities such as stationary bike, cardio machine, rowing, or swimming. Even a brief workout of short-duration sprints delivers profound hormonal, neuroendocrine, metabolic, and antiaging benefits. Becoming proficient in sprinting improves your performance and reduces your rate of perceived exertion at all other speeds below sprinting. Sprinting will also help you shed excess body fat more effectively than any other workout, because the genetic signaling prompted by nearly all-out explosive effort lasts for many hours after the workout. Although you aren't burning a ton of calories during a short session, it's the hormone optimization that sets you up for body-composition breakthroughs. I'll discuss sprinting as an advanced strategy for fat reduction in [chapter 7](#).

It's critical to conduct sprint workouts correctly in order to avoid the burnout risks associated with overly stressful HIIT sessions. The high degree of difficulty associated with sprinting necessitates that you feel 100 percent rested, motivated, and pumped up to deliver a peak effort every time you start a workout. One sprint session a week is plenty for most everyone. If you have any indication of subpar immunity (sore throat, stuffy head), muscle soreness or stiffness (even minor), diminished motivation, or slight fatigue at rest, delay your planned sprint workout until you are chomping at the bit to open the throttle.

A deliberate preparatory sequence is also a valuable way to gauge your readiness to perform your main set of near-maximum-effort sprints. A warm-up period consisting of slow jogging, dynamic stretching, preparatory technique drills, and wind sprints is necessary to reduce injury risk and deliver a peak performance. Dynamic stretching means that the resistance during the stretch comes from extending your range of motion. Examples include lunge walks, arm circles, and high-knee jogging. Preparatory technique drills focus on a certain element of correct sprinting form to improve your technique. Examples include a hopping drill to exaggerate

knee drive, a high-heel, high-toe drill to exaggerate the correct dorsiflexion of the foot on the recovery phase of the stride, and many more. Search YouTube for “Brad Kearns running technique drills, beginner” and “Brad Kearns running technique drills, advanced” to get some great ideas.

Wind sprints are brief accelerations toward maximum speed followed by a gradual deceleration into jogging, or the equivalent on a bicycle or cardio machine. Focus on executing good technique and engaging all the relevant muscle groups smoothly. You should feel alert, snappy, and explosive during warm-up to ensure a safe and effective sprint workout. If your coordination is off or your legs feel heavy, save the hard stuff for another day. Believe me—simply completing some technique drills and wind sprints makes for an outstanding high-intensity workout.

Your primary set will consist of four to ten sprints of between ten and twenty seconds each. Go with fewer reps of shorter duration for high-impact running or if you are a novice sprinter. Do more reps of longer duration for low-impact sprints or if your competitive goals are related to endurance events. After each sprint, it’s important to take what Dr. Craig Marker describes as “luxurious” rest intervals. Your respiration should return to near normal, and you should feel completely refreshed and focused, ready to deliver another *effort of consistent quality*, and continue in this rhythm for the duration of the workout. This will typically entail between sixty and ninety seconds of rest between each sprint, around a five-to-one ratio of work to rest.

Sprinting for between ten and twenty seconds seems to be the sweet spot for excellent fitness adaptation without the cellular destruction that occurs at an exponential rate when you try to sprint for longer than twenty seconds. What’s more, any effort longer than twenty seconds is not a true sprint, because humans are incapable of sustaining maximum output for longer than around seven seconds. Indeed, when you see Usain Bolt pull ahead of the pack in the final stages of the Olympic 100-meter final, what’s actually happening is that he

is decelerating less than his competitors! Whether you are a novice or a high-level athlete, these parameters constitute a wonderful template for a true sprint workout that develops explosive power without the cumulative fatigue and cellular destruction of prolonged, exhausting workouts. As you improve your fitness, you will simply go faster instead of trying to sprint for longer distances, complete more reps, or take shorter rest intervals.

Delivering an “effort of consistent quality” means meeting a uniform performance standard (e.g., taking fifteen seconds to complete an eighty-meter sprint) at a uniform rate of perceived exertion (e.g., you declare it to be a 93 out of 100 percent) with each sprint. If your sixth sprint of eighty meters takes seventeen or eighteen seconds to complete, or if you have to notch it up to a subjective 97 percent perceived exertion level to finish in fifteen or sixteen seconds, it’s time to end the workout. You should also end it immediately if you experience any new muscle stiffness or pain, a fatigue-induced breakdown in your technique, any sort of dizziness, nausea, or difficulty catching your breath during the recovery period, or central nervous system fatigue, in which your focus or motivation to continue declines. For many fitness enthusiasts brought up with a “no pain, no gain” mentality, it will require some discipline and ego restraint to execute sprint sessions correctly. Take inspiration from elite-level sprinters who routinely curtail workouts or even withdraw from big races at the last minute if they notice so much as a twinge in their hamstrings.

The final element of an excellent sprint workout is a proper cooldown, in which you jog or otherwise deliver a minimum effort for between seven and ten minutes until you stop sweating and help your heart rate, respiration, and metabolic functions calm down gradually. By the end of your cooldown, you should be able to breathe and speak normally, feel satisfied and a bit euphoric from an optimal level of workout stress, and feel pleasantly fatigued but not trashed. You should be able to walk away from the track with a little bounce in your step and an eagerness to return soon.

Sprinting on flat ground delivers the most benefits, including strengthening connective tissue, increasing bone density, and prompting maximum genetic signaling for fat reduction. Because it involves high-impact trauma, it also has the highest risk of injury. If you are a novice, are overweight, or have injury-risk concerns, you can build momentum with low-impact or no-impact sprints (performed on cardio machines or stationary bikes or executed while rowing or swimming, for example). Following those types of workouts, you can progress to sprinting uphill or up flights of stairs. After several excellent sessions with no pain or injury flare-ups, you can introduce some wind sprints on flat ground, perhaps in conjunction with stair or uphill sprint workouts. After some adaptation to wind sprints, you can ease into the world of high-impact sprinting and continue to progress to a full-length workout.

Emphasize Recovery

Fitness enthusiasts deserve accolades for countering the couch potato cultural norm, but the subsection of highly motivated, goal-oriented folks in the endurance, group exercise, and CrossFit communities also share a personality tendency to overdo it. Overly stressful exercise patterns have been shown to suppress immune function, suppress important adaptive hormones such as testosterone and human growth hormone, and increase your risk of cardiac disease attributable to repeated scarring and inflammation of the heart muscle during strenuous workouts and not taking sufficient rest between such efforts. Whether your fitness pursuits actually accelerate the aging process instead of delivering the intended benefits comes down to how well you pace yourself during workouts and manage the delicate balance between stress and rest. The central theme of my book *Primal Endurance* is that by honing your aerobic development without the stress and extended recovery time of more difficult sessions, you can actually go faster on the racecourse.

The “no pain, no gain” workout mentality is slowly but surely fading from prominence, but some remnants may still reside deep in your psyche, if not your social media feed. Know this: your training program does not have to be exhausting in order to be effective, and you don’t have to destroy yourself in big workouts in order to achieve fitness breakthroughs or toughen up for competition. In my time as an elite athlete and in my decades of coaching elite professionals, I have noticed time and again that the athletes who are the most intuitive, willing to adjust plans on the fly, and able to properly regulate competitive intensity in training are the ones who bring home the gold. They are able to dig deep in important competitions precisely because they have not abused their reserves of energy and willpower repeatedly in training.

I suggest thinking about your workouts as falling into three categories: break even, breakthrough, and recovery. A break-even workout is one that maintains your fitness at a comfortable pace and with moderate effort. A breakthrough workout is one that’s difficult and challenging enough to stimulate a fitness improvement. These are done only occasionally, and you must feel 100 percent rested and energized for maximum effort. Recovery workouts are of shorter duration and require less effort than a break-even workout so that they are truly restorative.

Surprising as it may seem, easy to supereasy recovery sessions make a significant contribution to your fitness because they make you more resilient for difficult workouts. They also reduce injury risk by strengthening joints and connective tissue, help hardwire correct technique into your central nervous system, and improve your mood, enjoyment of exercise, and overall sense of well-being. We often glamorize the most difficult workouts, but it’s simply not possible to run twenty miles, cycle one hundred miles, or deliver a new personal best for a CrossFit benchmark workout without putting in the preparatory effort of easier training sessions.

Joel Jamieson, leading strength and conditioning coach and trainer of MMA world champion fighters (8WeeksOut.com), is

lauded for placing recovery at the center of an effective training program. He promotes a specially designed “rebound workout” that can help you recover more effectively than total rest! This is a radical insight that Jamieson has validated with heart rate variability (HRV) tests. Elements of a rebound workout include dynamic stretching, mobility and flexibility drills, foam rolling, and deep-breathing exercises that boost blood circulation and oxygen delivery without stressing the body. You can also include a handful of very brief explosive efforts (no-impact) followed by long rest intervals—for example, sprinting for ten seconds (at below maximum effort) on a stationary bike, followed by easy pedaling for a minute during which you make a concerted effort to lower your heart rate as quickly as possible. The sprint will cause a brief fight-or-flight reaction, while the recovery period generates a compensatory “rebound” response that stimulates parasympathetic function. Hone this skill of lowering your heart rate during these sets in the gym and you can use it when faced with other forms of stress (a traffic jam, a workplace conflict, and others that arise during a hectic day).

Low-intensity movement is the best way to recover from hard training, so keep JFW a priority. Spend a little extra time doing flexibility and mobility drills in conjunction with your formal workouts and in micro workouts. Promote recovery by never extending yourself too far in the first place. Don’t conduct high-intensity sessions if you are sore, stiff, feeling sluggish at rest, or have signs of compromised immunity. Stay under control during your most intense efforts, focusing on preserving explosiveness and executing precise form at all times. Monitor fatigue as your workouts progress, and pull the plug if you notice muscle tightness, form breaking, or negative emotions arising. Exercise extreme restraint and discipline during aerobic workouts to stay at or below your “180 minus age” MAF heart rate for the duration of nearly every workout. Even brief forays into glucose-burning zones make it difficult to return to fat burning when you slow down and thus ruin the intended metabolic benefits of the workout. Try your hand at some rebound-style workouts and see if you can finish the

session feeling better than when you started.

Follow a Fat-Burning Lifestyle—Journal Exercises

- 1. Sleep environment:** Describe your current sleep environment and the ways you can improve it to create a true sleep sanctuary. Mention specific ideas for reducing light (e.g., salt lamp, orange bulbs, room-darkening blinds), eliminating clutter, and optimizing room and body temperature.
- 2. Evening routine:** Describe your current evening routine and the ways you can minimize artificial light and digital stimulation after dark. Note specific ideas for replacing screen engagement with calm, mellow activities (socializing, dog walking, reading, foam rolling, and others).
- 3. Rest, recovery, and downtime:** Describe your current relationship with technology, including areas of weakness that increase stress, reduce productivity, and hamper recovery. List some specific ideas for being more disciplined and structured in order to reduce distractibility and hyperconnectivity—for example, batching email interaction to better focus on peak-performance tasks, establishing strict off hours for technology, and building in routines for exercise and nature immersion to ensure that you succeed.
- 4. General everyday movement:** Describe your current movement habits and develop specific ideas for increasing all forms of general everyday movement. Start with ideas for more walking, then include other movement endeavors that are both appealing and doable—for example, participating in formal movement practices (yoga, Pilates), taking frequent breaks from prolonged periods of stillness, and designing some

micro workouts to conduct over the course of the workday and during leisurely evenings.

5. Comfortably paced cardiovascular workouts:

Describe your current cardiovascular exercise routine and ideas for improving your commitment to comfortably paced cardio. Note whether you adhere to the “180 minus age” heart rate guideline and how you might improve your adherence to it if necessary.

6. Brief, intense workouts: Describe your current high-intensity training patterns and devise ideas for improving your commitment to properly conducted sprint and strength workouts. Describe any necessary modifications to your current workouts and/or the type and frequency of workouts to add to your routine. Address the concept of micro workouts with thoughts about ways to integrate them into your lifestyle.

7. Recovery: Write down any areas of particular concern—those where your stress-rest balance is lacking. List specific ideas for integrating more rest, recovery, and downtime into your lifestyle.

CHAPTER 6

Put Two Meals a Day into Play.

For the most part, you can maintain your existing dietary beliefs and enjoy your favorite meals (assuming you eliminate toxic foods and emphasize healthful foods, of course!) while you pursue your overarching goal of reducing the total number of meals you consume—this week, this month, and for the rest of your life. The timing of your two meals (maximum) each day can be adjusted to align with your daily schedule and personal preference. For example, you could routinely fast in the morning, eat a nutritious lunch meal, and enjoy a delicious evening meal with family. People with a hectic daily work schedule might prefer a hearty breakfast and an earlyish dinner on most workdays. When you have established a good rhythm of eating a maximum of two meals a day without snacking, you can throw in some days of extended fasting. This could consist of a single centerpiece meal along with a light snack or high-fat beverage in the morning. Following are some suggested *Two Meals a Day* patterns that you might like to test over time as you dial in a long-term strategy that works best for you and your lifestyle.

Gradual Progression

If you have metabolic damage from a history of yo-yo dieting, difficulty dropping excess body fat, or disease risk factors revealed by blood tests, or if you are currently eating more

than two meals a day and/or snacking frequently and routinely eating outside a twelve-hour daily window, it may be best to follow a gradual progression to reach a baseline of two daily meals with no snacking in between. Instead of getting overwhelmed with too many objectives at once, try tackling them in the following order.

- 1. Mind your twelve-hour digestive window.** Getting this right will make it easier to eventually eradicate snacking. When it's time to relax and enjoy a show or socialize after dinner, brush your teeth first so you won't be tempted to munch on something.
- 2. Ditch the Big Three.** As you learned in [chapter 2](#), this doesn't necessarily have to coincide with an extreme reduction in your carbohydrate intake, and it certainly doesn't mean caloric restriction. Enjoy a sufficient amount of colorful, nutritious carbs in order to reduce or eliminate the risks of experiencing the symptoms of low-carb flu.
- 3. Address snacking.** At first, do whatever it takes to keep the Big Three out of your life and avoid backsliding into carb binges. If your energy dips between meals, go ahead and snack, but make sure you emphasize nutritious high-fat foods (e.g., macadamia nuts, nut butters, dark chocolate, hard-boiled eggs, leftover steak). Over time, strive to cut back and eventually eliminate snacking. Realize that the desire to snack is often driven by forces other than hunger, such as boredom or the need for a cognitive break. Replace snacks with micro workouts! Of course, a snack can take the place of one of your meals when you get further down the road of metabolic flexibility.
- 4. Honor your natural hunger and satiety signals.** Eat all your meals in a calm, quiet setting. Eliminate distractions such as televisions, computer screens, and

even reading. Chew each bite extensively and savor the entire experience. Notice the point at which you are satisfied (it is often long before you're "full") and leave the rest of the food on your plate.

5. **Test *WHEN*.** Delaying your first meal of the day until you're truly hungry takes the pressure off because you know you can eat anytime. By contrast, pushing to achieve a 16-8 eating window before you're ready can lead to obsessing about the clock and developing an unhealthy relationship with food. All your progressions should feel natural, comfortable, and easy to sustain. If you are able to easily delay your first meal until around midday, getting into a *Two Meals a Day* groove will be much easier.

Break-Fast *WHEN*—When Hunger Ensues Naturally

The most simple, sustainable, and quantifiable strategy for boosting metabolic flexibility is to delay your first meal of the day until you experience true sensations of hunger. While this might not be optimal for certain people who have limited time or access to food at midday and need to fuel up at home before heading out, it seems to be the most popular and convenient long-term strategy. After not eating for eight hours overnight, you awaken in a prime fat-burning state. You are slightly glycogen depleted, which typically prompts the production of ketones in the liver. This happens to a mild extent if you aren't keto-adapted or to a significant extent if you are aligned with ketogenic dietary guidelines. With fat burning heightened in the morning, you are ready for hours of productivity without the potential interference of having to prepare and digest a meal. Mornings are a great time to build more metabolic flexibility by leveraging the overnight fasting period. You certainly don't have a huge need for immediate calories until you spend a few hours burning stored energy and working up an appetite.

If you wake up and inhale a great American high-carbohydrate “most important” morning meal (juice, toast, oatmeal, cereal, and other carb-rich foods), you immediately override all the momentum toward fat burning resulting from your overnight fast and switch into carb dependency mode. By midmorning, after you burn through breakfast calories and produce the requisite amount of insulin to deal with the carbohydrate load, you might get hungry for a snack or notice your mind wandering to thoughts of lunch. You have boarded the glucose-insulin roller coaster and will remain on it for the rest of the day—and potentially for the rest of your life, unless you escape these SAD dietary patterns. If you eat a nutrient-dense breakfast with ample fat and protein, free from refined carbohydrates, you won’t get the insulin crash but you’ll still stop burning body fat and making ketones in favor of burning off the meal. That said, enjoying a nutritious morning meal is not necessarily a bad thing, and it may be an effective strategy for you to consider based on your daily schedule.

If you do a decent job with the five steps in the “gradual progression” section ([here](#)), you should be able to last at least a couple of hours after waking before you feel a need to eat. With continued effort, virtually anyone can progress to the point where the break-fast meal is eaten around noon. Obviously, this sets you up for smashing success with the *Two Meals a Day* strategy. If you want to activate your digestive circadian rhythms in the morning to help get all your cylinders firing, enjoy some coffee or tea or other low-calorie beverage. I contend that the cream and sugar in my morning coffee is inconsequential to my compressed-eating-window goal because I burn the minimal sixty or so calories they add to my coffee in a short time.

When you implement the WHEN strategy, resolve to stay active in the morning, but save your high-intensity workouts for a later hour, when your metabolic flexibility is exceptional. Walking or doing a low-level cardio session is not strenuous enough to spike appetite and will further optimize your fat-burning state. If you’ve eaten a morning meal for decades, you

may experience a circadian-influenced ghrelin spike in the morning. See if you can ignore it, knowing it will subside in less than twenty minutes. Instead, try to energize yourself with a walk, a micro workout, or an engrossing cognitive task. As midday nears, you'll realize at a certain point that you really would love some food to sustain you. Relish the experience of eating in order to actually quell hunger, not because it's a certain time of day or you simply need a break from work.

If you are trying to drop excess body fat, make occasional efforts to extend yourself past that hunger point for another thirty to sixty minutes before you enjoy a meal. Be cautious with this advanced strategy; it can easily backfire by causing you to overeat during your narrow time window. Resolve to get really comfortable with a 16-8 baseline, then go beyond that once in a while in pursuit of body-composition improvements. Remember to focus on lowering insulin through fasting and eliminating refined carbs. Don't try to combine extended fasting with eating fewer calories, because this will potentially lower your metabolic rate and make you feel sluggish.

Morning-Evening Pattern

A morning-evening strategy is appropriate for people with physically demanding jobs, people who have difficulty making time for meals or gaining access to healthful food at midday, athletes seeking to optimize meal and workout timing, and people working in a fast-paced, high-stress office environment that's difficult to unplug from. If you aren't able to take at least thirty minutes to mentally and physically disengage from your workplace and put yourself in a quiet, relaxing environment, even a nutritious meal may not be advised. Remember: the sympathetic nervous system's fight-or-flight mechanism directly contradicts the parasympathetic system function nicknamed "rest and digest." When you adopt the morning-evening pattern, you can set your digestive circadian rhythms and fuel yourself for a high-energy day before leaving

home, then focus on your core daily responsibilities without interruption. When you get home and transition into relaxation mode after a busy day of physical and/or mental demands, you can enjoy a celebratory dinner and stay in alignment with the *Two Meals a Day* template.

While the morning-evening pattern may run counter to my previous point about fat burning being disturbed by eating first thing in the morning, if you fully commit to the morning-evening pattern you will be okay. By powering through productive daytime hours (including perhaps an ambitious workout) without a midday meal, you are turbocharging fat burning and depleting glycogen to make high-octane ketones for brain superfuel—the same benefits that accrue when you fast in the morning until WHEN. Although completing a sixteen-hour overnight fast is definitely a feat of metabolic flexibility, it's arguably just as impressive to complete a ten-hour fast during waking hours of much higher calorie burning.

In further support of a morning-evening pattern, you are more insulin sensitive in the morning than at any other time of day. This means that your cells are more receptive to the signaling of insulin, so a little goes a long way to get the job done. If you eat two identical meals, one in the morning and one at nighttime, you will likely experience more fluctuation in blood glucose, produce more insulin, and be more likely to store ingested calories as fat instead of burn them with the food you eat in the evening. In contrast, whatever you eat in the morning is going to be burned off quickly as you get busy!

Athletes have found success with the Morning-Evening pattern to deliver pre-workout calories in the morning and promote recovery with the evening meal. My longtime work colleague Brian McAndrew, who makes me sound and look good on podcasts and YouTube videos, is a strict devotee of keto and carnivore-style eating (he coauthored *Keto Cooking for Cool Dudes* and *Carnivore Cooking for Cool Dudes* with Brad). Brian is also a serious powerlifter who spends up to two hours in the gym working hard several days a week. Brian's workout typically comes around midday, after he has had

sufficient time to digest a morning meal. His high protein breakfasts (see his books for some incredibly creative ideas perfect for athletes) deliver a steady drip of amino acids that negate the need for using protein supplements before or after workouts. Come early evening, he will enjoy another substantial meal, ensuring full replenishment from his big workouts and giving him enough time to digest without interfering with bedtime.

Dr. Art De Vany also favors a Morning-Evening meal pattern sandwiching a midday workout. He likes to have fasted before exercise to send a “renewal signal” to his cells, then fast for at least four hours after an intense workout to maximize the benefits of autophagy and mitochondrial biogenesis. Dr. De Vany explains that a long interval between meals promotes *proteostasis* (protein homeostasis)—the stabilization of the critical operations of protein making and (desirable) protein degradation in cells throughout the body. By contrast, eating too much too often can cause dysregulated protein production and degradation, which is the essence of accelerated aging, cognitive decline, and increased cancer risk. (Hence one of my brilliant subtitle suggestions that didn’t make the final cut: “Quit Eating So Much Goddamn Food!”) Depleting cellular energy through fasting or strenuous workouts is like having a quality control inspector visit the assembly line to ensure that everything is going efficiently and stays in proper working order.

Let’s break this down a little further: when you starve your cells of energy by fasting or conducting an intense or prolonged workout, or especially when you combine the two (something I do nearly every day), you achieve a tremendous repair-and-renewal effect that constitutes antiaging at its finest. In addition, Dr. De Vany sees this pattern of fasting, exercise, and controlled nutrition as a cure for depression: “Starve and exercise!” He explains that starvation, through the aforementioned cellular detoxification process called autophagy (see [here](#)), eats up some of the dysfunctional synapses in your brain. “For every damaged molecule,” he

says, “there’s a damaged thought. A depressed brain or a brain that has post-traumatic stress—those are injured neurons inside the brain, and you just need to get rid of the dysfunctional molecules that are causing those neurons to malfunction.... First heal the brain. You heal it with neurotrophic factors. Be outside. New thoughts, new patterns of behavior.... Being outside is enormously effective. There’s stimuli you can’t even relate to, but you perceive them. Your unconscious brain is what’s going to heal you first.”

Intuitive Strategy

In the intuitive approach, your eating decisions are driven mainly by your hunger and satiety signals as well as by your mood, environment, and daily variation in sleep, work, exercise, and socializing habits. An intuitive strategy frees you from the often hidden stresses and hassles of adhering to a meal schedule and allows you to just go with the flow every day. As you might imagine, this is most effective when your outstanding metabolic flexibility allows you to thrive whether or not you eat regular meals. At the highest level of sophistication, meals are eaten only when you’re hungry and able to consume the most nutritious and desirable food possible in a relaxed meal setting.

When you follow an intuitive strategy, you’ll find yourself skipping or delaying meals without realizing it. You’ll break free from the cultural attachment to certain foods at breakfast, lunch, and dinner. You might enjoy some steak in the morning and eggs in the evening. Maybe you’ll feel like having a few squares of dark chocolate at 10:45 a.m. instead of a sit-down breakfast or lunch. Then you’ll enjoy a hearty early dinner. Maybe you’ll occasionally skip dinner and go to sleep early because you’re tired rather than microwaving something unimpressive and then munching down a bowl of popcorn and watching Netflix because these have become your nightly habits. If you are eating intuitively, when you decide to indulge, you’ll be able to do so wholeheartedly, with deep

appreciation for every aspect of the experience. Contrast this with the guilty-pleasure mindset we've been socialized to adopt whenever we indulge. As you learned in [chapter 4](#), shame and guilt can compromise much of your enjoyment and help you get stuck in a pattern of rebellious behavior.

Essentially, the intuitive strategy allows you to break free from any and all attachments relating to food. Ascending to the point where you can adopt this strategy acknowledges that controlling caloric intake does not mean you are in control of your life (a concept that anorexics fail to embrace, to their extreme detriment); eschewing animal foods does not equal moral superiority; and your six-pack is not who you are, it's just something you wear well! When the smoke clears, you are left with pure awareness of your true caloric energy needs and pure appreciation for the foods and meal circumstances that you enjoy.

Granted, it's certainly less objectionable to be emotionally attached to a 16-8 meal pattern than it is to be addicted to carbs. Ditto for being wedded to an identity as a planet-conscious vegetarian or a six-pack wearer instead of a glutton. However, as your friendly neighborhood Zen Buddhist will remind you, attachment inevitably leads to suffering. In a world driven by instant gratification, hyperconnectivity, and consumerism, we are all programmed to cultivate unhealthy attachments to all kinds of crap, and food is one of the most destructive items on the list. If you can take some baby steps to break free from emotional attachments to eating, your metabolic flexibility may very well serve as a catalyst for more flexibility and more peace of mind in many other areas of life.

Along these lines, the intuitive strategy might be the most effective way to drop excess body fat and keep it off forever—even better than a hard-core 16-8 pattern or precise carb restriction along keto guidelines. Over the years, I've counseled numerous highly disciplined people frustrated by fat-loss stalls. They typically claim to be doing everything right. On further examination, unhealthy emotional

attachments will be uncovered (to the clock, to favorite foods that are “approved” as healthful, or even to excessive and counterproductive calorie burning), or we’ll expose lingering self-limiting beliefs and behavior patterns that are playing out behind the scenes. One common example is harboring a subconscious belief that you’re undeserving of a sexy physique, or that LGN (looking good naked) is a silly and superficial goal compared to high-minded ideals such as avoiding vanity at all costs. By the way, I’ve found LGN to be one of the most effective motivators of them all!

Being completely free from any rigidity or quantification reduces the risk of the incredibly common backsliding and rebellious behavior that occur in reaction to restrictive and regimented programs. Even if you’re highly fat-adapted and possess excellent discipline, focus, self-awareness, and knowledge of healthful eating, it’s easy to fall into attachment patterns that hinder your progress—for example, eating habitually at noon because it marks the end of your 16-8 fasting window or overindulging in “approved” high-fat snacks to cope with feelings of deprivation after abstaining from your previous favorite snacks and treats. When you can transcend these and other pitfalls of regimentation, excessive self-quantification, and general attachment to food, meals, and results on the bathroom scale, dropping excess body fat and keeping it off happens in the background without your having to think about it.

Unfortunately, the freedom of the intuitive strategy has a perilous flip side, because you are liberated from some of the guidelines and restrictions that have kept you accountable. When you are not obsessed with your 16-8 goals, you may find yourself not eating until 2:00 p.m. one day, but the possibility exists that you won’t be compelled to wait until 12:00 noon to eat on other days. It may be helpful to understand that the intuitive strategy is not a loosey-goosey strategy! In this context, the cavalier use of the old advice *everything in moderation* really bugs me. Today, given the epidemic rates of diet-related disease (not to mention the

coronavirus pandemic, which preferentially attacks people suffering from obesity, diabetes, high blood pressure, and weakened cardiovascular and immune systems), I believe an extreme commitment to healthful eating is warranted. As Oscar Wilde said, “Everything in moderation, *including* moderation.”

While I want you to enjoy your life, and enjoy that omelet Cousin Babby prepared for you at 10:00 a.m. during her visit, even if you are on a 16-8 plan, an occasional departure from your winning template is different from using hall passes left and right to avoid best practices. If you feel like you need the safety net of adhering to a 16-8 window, or the fifty-carbohydrate-grams-per-day ketogenic diet limit, or the rule that ice cream is not allowed into the house, I understand. Strict parameters are warranted when you’re trying to ditch carb dependency, reduce excess body fat, or achieve specific athletic goals.

I implement a variety of guidelines, incentives, and rewards to keep me honest with my eating choices, help me resist the distraction of YouTube videos (I favor stuff like electric hydrofoiling, stand-up paddling, or Laird Hamilton and Kai Lenny big-wave surfing), and curb the inclination to slack off on the final sets of my workout. However, I also know how to relax, unwind, unplug, and embrace the times when my intuition guides me in a direction other than strictly pursuing peak efficiency every day in every way. As I said at the outset of the book, I’ve been there and done that with my extreme marathon training regimen, which destroyed my body instead of leading me to Olympic glory.

I believe the secret to optimizing your caloric intake and meal patterns is your incredibly sensitive and finely tuned genetic signals of hunger and satiety. You really can’t go wrong when you relax, put the food scales and calculators away, detach from emotional, cultural, and environmental triggers for eating (and overeating!), and allow your long-lost hunger and satiety signals to return to center stage. You get to appreciate food as nourishment for a healthy, fit, energetic life

instead of another example of modern-day excess. A beautiful balance point is achieved when you are “hungry enough” for nearly every meal you sit down to and eat “just enough” to feel satisfied instead of full (you don’t want to be full of food as well as regret for overdoing it and spoiling the experience).

You can strive for the same balance point in your sex life, workout patterns, Netflix viewing, and even your standard of living. Sociologists and statisticians have long asserted that once you attain a certain reasonable income level—one that meets your basic needs and allows you to enjoy some comforts and leisure opportunities—more money simply does not buy more happiness. Reflecting on the fact that my own standard of living and career complexity have steadily escalated over the years, I realize that my thoughts and emotions about the stresses—and successes—of entrepreneurial life have stayed exactly the same. It’s just the number of zeros on the figures involved that have changed.

Commit to the hard work of developing metabolic flexibility, because this is the necessary prerequisite for breaking free from regimented meals and carbohydrate dependency and the flawed psychology that goes hand in hand with them. It’s impossible to free yourself from obsession with and attachment to food when you are literally dependent on regular meals for energy. When you have built some momentum, see how it feels to relax a bit and go with the flow!

Put Two Meals a Day into Play—Journal Exercise

Strategy and Progression: Describe your present eating style, including your typical window for digestive function and calorie consumption. Plot out a realistic progression from the present to an eventual pattern of two meals a day (maximum) and no snacking. Describe your preferred strategy, whether break-fast WHEN, morning-evening, or intuitive. Include details about your daily work and exercise schedule and how you believe your strategy will work effectively.

CHAPTER 7

Advanced Strategies for Fat Reduction

As you may have discovered, calorie restriction paired with ambitious caloric expenditure does not work for fat reduction, as we have been led to believe. The compensation theory sabotages the best-laid plans of even people with maximum discipline and willpower. As I mentioned in the introduction, the metabolic set point theory is legitimate, and it takes a concerted effort to alter your genetic predispositions. If you have made a valiant effort to achieve the objectives covered in the previous chapters and have either hit a plateau or aspire to even better results, you can try some advanced strategies. In this chapter, I'll cover a progression of fasted workouts, extended fasting periods, sprinting, and the exciting cutting-edge strategy of cold exposure to trigger fat reduction. During your 12-Day Turbocharge, you'll dabble in some of the techniques covered here; this chapter is designed to provide further detail and guidance for implementation of these strategies over the long term.

These techniques are not easy, but they work. It's important to adopt an empowering mindset in which you fully buy into what you're doing, embrace the challenge, appreciate the process regardless of the outcome, and respect the fact that big success requires big commitment. For example, I believe that working through hunger now and then delivers profound psychological benefits. Coming from my background as an

extreme calorie-burning and calorie-consuming athlete who was literally dependent upon carbohydrates to perform, I feel like pushing the limits of my hunger now and then proves to me that I am no longer at the mercy of food to survive and thrive. I'm no longer beholden to the dogma of conventional stupidity that brainwashed me to worship a false god—that is, the calories in, calories out model of energy expenditure. Embracing hunger once in a while also gives me a renewed appreciation for the beauty of mealtimes and eating delicious food. Anytime we take something for granted—whether it's a relationship, an airline flight being on time, a reliable internet connection, or a meal—our appreciation of it can easily be diminished. With our constant access to all manner of ready-made meals and snacks, it's easy to become disconnected from the satisfaction of working hard to procure food for a nourishing meal. When you can experience sensations of true hunger occasionally, and then let these hormonal processes play out for a bit before extinguishing them, you become a more mindful, grateful, and intuitive eater.

Following are some ways to signal your genes to shed excess body fat relatively quickly. Once you reach your body-composition goal, you should be able to maintain your new physique indefinitely without much trouble. Even if you back off from these advanced strategies, reduce your exercise volume, and/or get a little loose with your diet, your homeostatic drives and compensatory processes will help keep your body-fat percentage within a tight range. These are the same compensatory mechanisms that make it tough to shed fat in the first place! That said, if your future involves a sustained increase in dietary insulin production, you will gradually accumulate body fat in response. To keep your body composition in check, focus on lowering your theoretical insulin AUC (area under the curve) value. This means producing an optimally minimal amount of insulin, just enough to get the job done; best achieved by fasting routinely and avoiding refined carbohydrates and industrial oils. Don't stress about being superconsistent with your workout caloric expenditure, or cutting back on the amount of nutrient-dense

food you enjoy. Enjoy your life, including celebratory dining and taking relaxing breaks from extreme devotion to workouts. If you harbor fears about getting soft, imagine your hand on a dial that you simply have to turn down a few notches to lower insulin production and accelerate fat burning.

Fasted Workouts

When you exercise in a fasted state, then wait between one and four hours before eating, you are forcing your body to accelerate fat burning to meet your energy needs. As you learned earlier, starving your cells of energy through the combination of fasting and burning calories through exercise prompts mitochondrial biogenesis—the making of new energy-producing mitochondria in your cells. As presented in the solar-plant-versus-coal-plant illustration in [chapter 3](#) (see [here](#)), fat requires mitochondria to be burned for energy, but glucose can be burned directly in the cell without mitochondria. The better your mitochondria work, the better you burn the clean fuels of fat and ketones around the clock.

Fasted workouts constitute an advanced strategy, because if you haven't built the metabolic machinery to burn fat—the solar power plant—you risk triggering fight-or-flight gluconeogenesis to meet your high-glucose energy requirements during and in the hours after the workout. A carb-dependent athlete attempting a fasted workout or a fasting period after a workout is merely increasing the stress impact of the workout and extending recovery time. Until that athlete's diet (and high-stress, sugar-burning lifestyle habits) are transformed, he or she will not gain the benefits of fasted workouts. Assuming you can comfortably operate in a 16-8 compressed eating window with a somewhat active morning of working and perhaps some light exercise, you can take the next step and conduct a morning workout after an overnight fast, then continue fasting afterward for a period of time, usually at least one hour and eventually up to four—a bit of a challenge but not too daunting. Then, just as you can when

you're progressing toward a 16-8 pattern, you can enjoy a satisfying meal when you experience true sensations of hunger.

The fasted workouts strategy has four variables: the duration of your fast before the workout, the duration of your fast after the workout, the degree of difficulty of the workout, and the total duration of the fast. Experiment and determine what's best for you. Following is a suggested progression that gets you started and continues all the way to the highest degree of difficulty and maximum fat-reduction benefits.

- 1. Overnight Fast, Moderate Workout:** You should be able to comfortably complete a recovery or break-even workout in a twelve-hour overnight fasted state (see [here](#)). Your energy expenditure was minimal overnight, so you still have sufficient liver and muscle glycogen to perform an aerobic session of up to sixty minutes or a brief, intense session lasting twenty minutes or less. If you are hungry for breakfast immediately afterward, go ahead and enjoy your meal.
- 2. Overnight Fast, Moderate Workout—Post-Workout WHEN Fast:** Conduct an aerobic session of no more than sixty minutes or a high-intensity glycolytic (glucose-burning) workout of no more than twenty minutes. This could be a sprint session or some intense strength training in the gym. See how long you can comfortably last after a moderate workout until you get hungry. Even fasting for an hour of power before sitting down to a meal constitutes a great stimulus for metabolic flexibility.
- 3. Overnight Fast, Difficult Workout:** This workout is of sufficient duration and/or intensity to significantly deplete glycogen. This might entail a high-intensity session of up to forty minutes or an aerobic session of up to two hours. Again, if you have to eat immediately following your workout, go ahead. An omelet or other

low-carb meal would be ideal, but if you are craving carbs, eat to feel fully satisfied and energized for some productive hours ahead. Strive to eventually minimize the carb content of this post-workout meal in order to progress to the next level.

4. Overnight Fast, Difficult Workout—Post-Workout

WHEN Fast: Welcome to the amazing new dimension of the fat-adapted athlete! The overnight fast and difficult workout are sure to significantly deplete glycogen. This means the post-exercise fasting period is being fueled by accelerated fat burning and ketone production. See if you can last at least an hour before enjoying a satisfying meal. You'll maximize the benefits of the post-exercise spike of adaptive hormones such as testosterone and human growth hormone, something that can be muted by insulin if you eat right away.

5. Overnight Fast, Difficult Workout—Post-Workout

Extended Fast: This is pretty advanced, so only take it on when you're ready! This level offers amazing potential for fat reduction. I've known many athletes who are able to shed several pounds of fat in a single week by stacking ambitious workouts on top of extended fasting. While I've frequently emphasized feeling comfortable and proceeding at a careful pace to avoid liquidating your assets, you can get more aggressive at this level.

When that inevitable sensation of hunger eventually arrives, one, two, or four hours after your big workout, see if you can persevere through the hunger spike for a while longer. Find something to keep you busy, such as an engaging work project, a phone call, or an outdoor stroll. I find that taking a brief break from my office to ascend some stairs or conduct a micro workout can propel me into a different metabolic state right away. I feel a burst of alertness that lasts for around half an hour afterward, likely because of a boost in fat burning and

ketone production. And while riding out a ghrelin spike is no joke, I can attest that it reliably subsides after fifteen minutes, especially if you engage in some form of movement as soon as you get hungry.

MAKING INCREMENTAL GAINS WHEN YOU'RE ALREADY FIT

When you implement advanced strategies to achieve a bridesmaid-body breakthrough in time for the wedding, you should be aware that you may not be able to sustain your very most impressive physique indefinitely. Tour de France athletes trying to shed the last few pounds of fat in the final run-up before the three-week event will pedal for up to six hours and then starve themselves for a few hours afterward. This is the only way to trigger further fat reduction when they are already in the single-digit range. However, these elite performers know that they can only sustain extremely low body-fat levels for the duration of the three-week tour, after which they naturally recalibrate to normal caloric intake and a slightly higher body-fat percentage.

However, even when you temporarily push the boundaries of your metabolic flexibility and then recalibrate to baseline, you will help optimize your body composition for years and decades to come. Consider the hypothetical example of a fit male stuck at 14 percent body fat despite devoted training and responsible eating. Implementing the basics of the *Two Meals a Day* program (cutting out the Big Three offensive foods, eating fewer meals, and fasting more) should enable him to quickly reach and maintain 12 percent body fat. Going from 14 percent to 12 is pretty straightforward, but making incremental gains from there requires temporarily going outside the comfort zone with a

burst of fasted workouts, a few twenty-four-hour fasts, or an aggressive cold therapy regimen (see [here](#)). With diligent implementation of these advanced strategies, he might be able to achieve 9 percent body fat temporarily. After dipping down into unsustainable territory for a bit, he will predictably drift up to a higher percentage over time. However, the adaptive response to his efforts can help shave his long-term set point down from 12 percent to 11 percent.

This possibility is supported by studies on fasting, insulin sensitivity, and nutritional ketosis. When you lower insulin production (even temporarily), you improve insulin sensitivity. The positive feedback loop of needing less insulin to get the job done allows you to build on your metabolic flexibility; it's the opposite of the escalating disease processes driven by insulin resistance. When you fast and restrict carbohydrates enough to trigger ketone production, you enjoy an assortment of downstream genetic signaling benefits that can help improve body composition. Ketones have profound protein-sparing effects, switching on genes that help build and preserve muscle tissue. Ketones deliver anti-inflammatory effects that are more potent than prescription drugs, enhance fat burning, and help prevent the accumulation of inflammatory visceral fat. Ketones trigger mitochondrial biogenesis, making you better at burning fat and less reliant upon dietary carbohydrates as an energy source. These benefits also allow you to train harder and recover faster, so you can burn more fat and build more muscle. Success with metabolic flexibility begets more success, including the ability to get a tiny bit leaner and fitter over time instead of the more common steady decline in fitness and accumulation of fat as we age.

Extended Fasting

You should only consider extended fasting when you have exceptional all-around health and immune function. If you started your *Two Meals a Day* journey unfit, obese, with a history of metabolic damage from yo-yo dieting, or with thyroid, adrenal, autoimmune, or inflammatory health conditions, focus on the gradual progression presented in [chapter 6](#): establish a twelve-hour digestive window, ditch the Big Three toxic modern foods, tighten up your snacking habits, honor your natural hunger and satiety signals, then venture gently and gracefully into the world of WHEN. Strive to get into a 16-8 routine and enjoy your new life of metabolic flexibility. You can certainly expect to achieve a gradual and sustained reduction in excess body fat over time, but aggressive efforts to shed fat are not advised if you have a history of metabolic damage. You can certainly explore occasional longer fasting periods, and they will likely happen from time to time naturally. However, there is no urgency to push yourself beyond a 16-8 pattern for at least a year after you first transition away from carbohydrate dependency.

If you already fast on an extended basis from time to time, are a serious fitness enthusiast, and/or have low body fat, you should easily be able to introduce 20-4 days or even occasional days of twenty-four-hour fasts. Interestingly, if you already have excellent metabolic flexibility and body composition, you stand to benefit less from extended fasting than someone who aspires to these characteristics. This is especially the case for fit females, who can easily overstress themselves if they layer extended fasting on top of a heavy training schedule. Remember that the six-pack female celebrated on magazine covers and viral social media posts is swimming upstream against the single most powerful female human genetic drive, which is to maintain reproductive fitness and fertility. Female fertility is predicated on consuming ample nutritious calories and maintaining a reasonable level of body fat, well above the typical magazine-cover specs. Trying to shed more body fat can easily become a fight-or-flight

exercise with negative repercussions.

That said, if you feel as though you're not quite "there" yet and aspire to break through frustrating weight-loss plateaus or shed some of the highly undesirable and health-destructive belly fat (a.k.a. visceral fat) that seems to creep up as the decades pass, extended fasting can lead to major breakthroughs. If you are experienced and comfortable with a 16-8 pattern, try a twenty-hour fast (e.g., an 8:00 p.m. dinner followed by fasting until 4:00 p.m. the following day). Pick a day of minimal overall stress and conduct only a moderate morning workout. Remember the rules of fasting: you never want to force it or struggle through declining energy, brain fog, or prolonged hunger sensations. See how long you can last while feeling great, performing great, and not really thinking much about food. As you learned from our previous discussion of the circadian-influenced appetite hormone ghrelin, you may experience sensations of hunger around 12:00 noon if you're accustomed to eating around that time. Trust that the discomfort of the rumbling stomach will subside in minutes, especially if you redirect your attention and energy to a quick stroll or micro workout.

You may have heard directives to break a lengthy fast with easy-to-digest foods such as smoothies and soups. I wouldn't worry too much about that after a twenty-hour fast. Choose an appealing celebratory meal—you deserve it! However, please resist the temptation to overeat after an extended fast. Sit down in a quiet, low-stress eating environment, chew at a deliberate pace, and enjoy the experience with full attention and awareness.

Twenty-Four Hours and Beyond

When you have successfully completed a couple of twenty-hour fasts, you can aspire for the esteemed twenty-four-hour fast. Challenge your mind and body to not eat for an entire day and see how you feel. Try fasting from an early dinner to another early dinner. Several of my friends and thought leaders

in the ancestral health scene do this on a regular basis, and some of them fast for much longer. The founder of Dry Farm Wines, Todd White, fasts for twenty-three hours every day! Each evening, he enjoys a celebratory dinner (usually with work colleagues, and with plenty of wine flowing in the name of product R&D) and doesn't eat again until the following evening. Todd reports that the logistics of his day are much easier: instead of spending time prepping and eating meals, he has convenient blocks of time available for meditation, focused work, and high-intensity workouts.

The OMAD (one meal a day) strategy is becoming increasingly popular among metabolically flexible folks seeking to maximize the benefits of fasting, accelerate fat metabolism, and burn high-octane ketones in the brain. It's common practice throughout Europe to consume coffee in the morning and then a celebratory meal after work. Dr. Cate Shanahan, an OMAD devotee herself, likes to pair a high-fat morning coffee (with added cream and/or MCT oil) with what she calls an early evening supermeal.

Dr. Peter Attia conducts a quarterly five-day fast while carefully tracking numerous blood, metabolic, and athletic performance metrics. Brian "Liver King" Johnson and his wife, Barbara, also conduct a five-day, water-only fast every quarter. Get this: the Johnsons' fasting period starts not with a Last Supper-style feast but with a grueling, glycogen-depleting workout that Brian describes as a "failed hunt." The idea is to simulate conditions that our ancestors likely endured regularly. Brian and Barbara report that after a few days of refeeding and returning to full-scale athletic training following the five-day fast, they experience a reliable boost in fitness benchmarks and daily energy levels. Dr. John Jaquish, inventor of the X3 Bar strength-training device and author of *Weight Training Is a Waste of Time*, follows a continual forty-eight-hour fasting protocol, eating a large, all-meat meal every two days. At 240 pounds and single-digit body fat, John's nutritional requirements are substantial, but his closed-loop functionality allows him to thrive and perform and recover

from awesome workouts while deeply fasted.

The research of Dr. Valter Longo, director of the Longevity Institute at the University of Southern California and author of *The Longevity Diet*, reveals that organs temporarily shrink during an extended fast. This is a consequence of the shedding of damaged, inflamed cellular material resulting from the stress of everyday life. Research also confirms that the important internal detox processes of *autophagy* (cell repair) and *apoptosis* (desirable programmed death of damaged, dysfunctional, and precancerous cells) are markedly accelerated during extended fasts, during which the hormetic stressor of starving your organs of their usual supply of caloric energy prompts stem cells to spring into action and initiate comprehensive renewal and repair processes.

Dr. Longo's research touts an assortment of extra benefits from prolonged fasts. Even a twenty-four-hour fast will not fully deplete muscle and liver glycogen, so fasting for two days and beyond will prompt additional spikes in fat burning and ketone production. In particular, glycogen-depleting fasts will spur the burning of stubborn visceral fat. Other observed benefits include lower inflammatory markers (such as C-reactive protein, a.k.a. hs-CRP); lower blood pressure; lower glucose, insulin, and triglyceride levels; a reduction in the growth factor IGF-1 (which delivers antiaging and disease-prevention benefits); and a boost in production of the precious BDNF—brain derived neurotrophic factor, a.k.a. Miracle-Gro for the brain.

KEEPING FASTING IN PERSPECTIVE

Some extreme health enthusiasts and biohackers suggest that seventy-two is the magic number—the minimum fasting hours necessary to trigger profound autophagy and anti-inflammatory benefits, but I'd like to back off from any "more is better" proclamations. Instead of trying to break records, focus on the long haul. Try to establish a 16-8

rhythm and/or a fractal, intuitive pattern featuring long fasting periods, delicious meals, and no snacking. Imagine checking in with yourself seven months from now—or seven years from now—and feeling comfortable with your routine.

If you attempt an extended fast, be sure that your energy and cognition remain steady for the duration. Save the really difficult workouts for another time; limit yourself to comfortably paced aerobic exercise and micro workouts. When your fasts extend beyond twenty-four hours, you start to produce higher levels of energizing hormones such as cortisol, adrenaline, and norepinephrine to keep your resting metabolic rate high in the absence of taking in calories. These are the same hormones that spike when you exercise, and the combined stressors can easily trigger a burnout condition after the fast, which could take the form of overeating and/or experiencing fatigue in the days thereafter. Finally, if you have a history of or tendency toward disordered eating, psychologists advise against attempting extended fasts because of their potential negative psychological consequences.

Sprinting

At my interactions with live audiences, I invariably get questions about how to deal with frustrating weight-loss plateaus. My favorite response is, “Nothing cuts you up like sprinting.” If you have done the hard work of transforming your diet and building metabolic flexibility, sprinting can help shed those final few pounds of stubborn fat. In comparison to burning calories with hours and hours of cardio every week, you can potentially obtain a tenfold return on your investment with sprinting. Here’s the opening sentence of a study published in the *Journal of Obesity* titled “High-Intensity Intermittent Exercise and Fat Loss”: “The effect of regular

aerobic exercise on body fat is negligible; however, other forms of exercise may have a greater impact on body composition.” Prolonged workouts can deliver many physical and psychological benefits, but they won’t melt the fat away. Sprinting will, provided you conduct the workouts correctly and have built metabolic flexibility (see [here](#) for more information about the way sprinting turbocharges fat burning).

The magic of sprinting comes from adaptive responses to the training stimulus as well as from the so-called afterburn effect. Afterburn refers to the fact that your metabolic rate is elevated for as long as seventy-two hours after even a short-duration sprint workout because of a phenomenon known as *excess post-exercise oxygen consumption* (EPOC). As your body works to return to homeostasis, extra oxygen is used for the purposes of hormone balancing, glycogen renewal, cell repair, muscle protein synthesis, ATP replenishment, and increased fatty acid oxidation. The adaptive response to sprinting describes powerful genetic signaling and hormonal cascades that help change your body so you can perform better the next time out. This includes improving oxygen delivery to muscles, recruiting more explosive muscle fibers, and shedding unnecessary body fat.

While adaptive responses are triggered by prolonged cardiovascular workouts and even piano lessons, these activities don’t lead to fat reduction as much as sprinting does. You can get away with carrying excess body fat while engaging in lower-impact or lower-intensity activities, but the penalty is much more severe when you’re sprinting. You are training to accelerate quickly at the start, pump the arms aggressively, strike the ground with maximum propulsive force in every stride (Usain Bolt’s force production is more than one thousand pounds per stride—five times his body weight!), and command the stabilizer muscles to maintain a balanced center of gravity throughout the effort. Even the slightest bit of wasted energy, such as a wayward arm swing or transporting a payload of jiggly abdominal fat that makes zero contribution to forward propulsion, will have a huge adverse

effect on your ability to generate top speed. The same dynamic holds true for any fitness endeavor or athletic event that entails jumping off the ground. Look at the chiseled physique of an Olympic diver or the skeletal frame of an elite high jumper. But don't worry if your physique is not quite Olympic caliber when you start. Do the best you can, knowing that continued improvement will be the reward for your commitment to something that's likely out of your comfort zone.

The profound genetic signaling for fat loss prompted by sprinting is why you never see a fat sprinter or jumper! By contrast, at the starting line of even the most challenging endurance events, such as a marathon, trail ultramarathon, or Ironman triathlon, you will notice that the majority of the participants carry a little or a lot of excess body fat. This is likely because of carbohydrate-dependent eating patterns and the compensatory responses of reduced everyday activity and increased caloric intake prompted by prolonged, depleting workouts. What's more, the disturbingly common chronic cardio patterns followed by serious endurance athletes and group exercise devotees can actually send genetic signals to overeat in an attempt to survive the stress on the body caused by exhausting workouts that deplete muscle glycogen. The end result of extreme endurance training is little or no genetic signaling to shed fat. Many extreme exercisers have been shocked when they shed excess body fat by training *less* and making only modest dietary adjustments.

Follow the instructions in [chapter 5](#) for properly conducting a sprint workout, with the emphasis on consistent, high-quality efforts and plenty of rest between them. You want a complete absence of the cumulative fatigue and cellular depletion that comes with a stressful HIIT workout, because this kicks you into compensation mode (less activity, more appetite) in the hours afterward. Because the caloric energy demands of a sprint workout are minimal, you can sprint in a fasted state. In fact, being fasted when you sprint is likely the best idea, because you will eliminate the risk of stomach distress caused by eating too soon before a workout. In

addition, because of the extreme metabolic demands of a sprint workout, it's best to wait at least an hour afterward, and maybe longer, before eating again. It's likely that your appetite will be muted because of elevated body temperature and stress hormone levels after a sprint session. Following the suggestions to fast before and a bit after your session automatically creates a nice level-5 experience (see [here](#))—a fasted morning plus a difficult workout plus a post-exercise fasting period.

The adaptive benefits of sprint workouts are maximized when you engage in weight-bearing sprints. If, because of an insufficient fitness level or injury risk concerns, you must start with low-impact or no-impact sprinting on a bike or cardio machine, strive to make continued progress toward running sprints on flat ground. While sprinting once a week is recommended, you can add a second sprint session during aggressive short-term fat-reduction efforts. If you do running sprints, start by adding a low-impact or no-impact session on a bike or cardio machine. If you think you can handle a second high-impact sprint session, try doing only the running technique drills and wind sprints described in [chapter 5](#) (see [here](#)). These are plenty strenuous enough to stimulate the adaptive hormonal response but will minimize the risk of injury and burnout that can crop up when you sprint too frequently.

Remember, it's all about the genetic signaling, and a little goes a long way. As you gain competence, don't be tempted to throw in longer sprints, more reps, or shorter rest periods. Just enjoy getting faster as you perform your template workout. Stick to the plan and watch the fat reliably melt away over time. If your sprint sessions are resulting in more than minor muscle soreness or next-day fatigue, tone down your efforts so that you can feel "okay" the next day. A message of caution for those who are brave and driven enough to venture out to the track and sprint: overly stressful workouts (e.g., too many and/or too lengthy sprints, and/or insufficient rest periods between efforts) trigger excess stress hormone production and

a compensation response. Well-executed explosive workouts stimulate a desirable spike in adaptive hormones (followed by a quick return to homeostasis) and efficient fat reduction. Brief, explosive micro workouts can also be a great catalyst for fat reduction. While sprint running requires extensive warm-up and preparatory drills, doing anything explosive for ten seconds counts as a form of sprinting in this context, including a set of deep squats, pulling StretchCordz or mini bands, and swinging a kettlebell. Adhere to the protocol described in [chapter 5](#) (see [here](#)).

Cold Exposure

Anecdotal evidence and cutting-edge science are revealing the incredible potential of therapeutic cold exposure, a.k.a. cold thermogenesis, to stimulate fat reduction independently, and as a complement to, diet and exercise efforts. Exposure to cold water is particularly therapeutic because its greater molecular density (versus air) drains body heat twenty-five times faster than exposure to cold air. Taking a cold shower—or, better yet, plunging into a tub of near-freezing water for a few minutes every morning—triggers an intense hormonal response. You experience an immediate and sharp increase in alertness and motivation as well as accelerated fat metabolism for hours afterward. Exposure to cold prompts your body to burn fat calories in an attempt to stay warm. Ray Cronise, a former NASA research scientist and prominent biohacker, lost twenty-seven pounds in six weeks with cold-activation techniques consisting of hot-cold contrast showers, “shiver walks” (outdoor walks underdressed), and sleeping in chilly conditions. Cronise describes the technique as “thermal loading” to increase metabolic rate.

Note: If you have preexisting health conditions such as thyroid or adrenal dysfunction, or if you have any symptoms of minor illness, hold off on cold exposure until you regain your basic level of health.

Therapeutic exposure to cold helps counterbalance yet

another genetic disconnect from our ancestral past—our virtually 24-7 existence in comfortable, temperature-stable environments. As mentioned in T. S. Wiley’s *Lights Out: Sleep, Sugar, and Survival*, we are locked year-round into a hormonal “summer mode” of sugar eating and fat storage in preparation for a cold, calorically scarce winter. Alas, that winter experience never comes—from a genetic-signaling perspective. We must acknowledge that modern humans have literally gone soft because of our obsession with comfort, convenience, luxury, and instant gratification.

Granted, no one wants to rewind the evolutionary timeline and experience the harsh natural selection pressures our ancestors faced. However, when we recoil at the mere mention of a cold shower or a quick plunge into a chilly river at the end of a hike, it’s clear we have lost some of the edge that makes us human. Our lack of interest in the daily challenges that have made us—in the words of Brian “Liver King” Johnson—“the baddest mammalian predators to ever walk the earth” has resulted in accelerated aging and increased risk of disease.

Like fasting, cold exposure provides a window into our ancestral past, for primal humans were routinely subjected to cold temperatures. Experts believe that cold exposure was a significant driver of an assortment of evolutionary adaptations, including optimizing endocrine and immune functioning and honing the ultimate survival attribute of efficient fat burning. Our adaptation to cold temperatures is most likely why we possess a special type of fat known as brown adipose tissue (BAT). Unlike regular “white” fat, which we store on our bodies and burn for energy, BAT exists primarily to keep us warm. Research shows that hormetic exposure to cold activates brown fat, triggering an increase in the burning of regular body fat.

Besides brown fat activation, a cold plunge delivers a fantastic burst of energy, alertness, and euphoria. You are tapping into ancient adaptive processes and response mechanisms that are hardwired into our genes. One prominent Finnish study revealed that immersion into forty-degree-

Fahrenheit water (4.4 degrees Celsius) for even as few as twenty seconds spikes the prominent mood, focusing, and motivation hormone norepinephrine by 200 to 300 percent for up to one hour! Cold exposure also delivers profound anti-inflammatory, immune-boosting effects, including an increase in the production of the internal superantioxidant glutathione. Cold exposure also prompts the release of the vaunted cold-shock proteins, which facilitate an assortment of repair processes in brain synapses and muscle tissue.

The vasoconstriction and vasodilation that result from cold exposure serve to strengthen your cardiovascular system. This counters the common quip that jumping in an ice bath or a frozen lake will give you a heart attack! Getting cold and rewarming also triggers a pumping reaction throughout the lymphatic system, providing a potent detoxification effect and a boost in white blood cell and killer T cell immune functioning. The common misconception that getting cold will cause you to catch a cold is disproved by a study of winter swimming devotees revealing that they experienced 40 percent fewer respiratory tract infections than a control population. Cold exposure followed by sun exposure also helps boost vitamin D production, something of particular benefit in minimizing the risk of contracting any viral infection—yes, including global pandemic infections. Cold therapy enthusiasts also enjoy numerous psychological benefits. When you can develop the discipline to turn that handle to cold for the last two minutes of your shower—or jump into an icy body of water, an ice bath, or a chest freezer filled with water that’s in the thirties, forties, or fifties for a few or several minutes—you develop focus and resilience that carry over into all other peak-performance endeavors in life.

If you’re still on the fence instead of stripped down and immersed in your closest chilly river, let’s emphasize the importance of keeping your cold exposure short enough to trigger an adaptive benefit without its seeming like an unpleasant ordeal. Remember, twenty seconds of immersion into forty-degree-Fahrenheit (4.4-degree-Celsius) water

delivers a huge hormone boost, so you can assume that one to two minutes at fifty-five degrees Fahrenheit will do the same. The optimally brief fight-or-flight stimulation makes you naturally more alert and energized after you get out of the water and start working to return to homeostasis. If you were to remain in the cold tub until you became truly uncomfortable and started to shiver, you might overstress the delicate fight-or-flight mechanisms in the same manner as you would by undergoing an exhausting workout or a stressful personal or work situation. A good benchmark to follow is to leave the water before you start shivering. Research suggests that muscles start to burn more energy and produce extra heat *before* you start shivering, so no need to try to set records.

The best strategy for taking a cold plunge is to cultivate a focused, positive, resilient mindset; become intent on executing the mission without wimping out. Whether you are in the shower, a cold tub, or a frigid body of water, using intentional breathing will help you withstand the initial shock response that typically occurs when you enter. You have probably had the experience of jumping into cold water, screaming reflexively, exiting immediately, and making a beeline for the nearest towel, tub, or hot shower. You can easily mitigate that panic reaction by taking deep, diaphragmatic breaths for the duration of your time in the water. Begin an aggressive inhalation by first inflating the abdomen, followed by the chest cavity. This will enable the diaphragm muscle and the oxygen-rich lower lobes of the lungs to fully engage for the most efficient breathing.

Commit to a reasonable goal of staying under the showerhead for two minutes or completing twenty breath cycles before leaving a cold tub or body of water. If you feel as if you are about to shiver, get out immediately and try to do a bit better next time. At my health club, I have access to a therapeutic cold plunge maintained at forty-eight degrees Fahrenheit (nine degrees Celsius). I enjoy hot-to-cold contrast therapy, in which I start with ten minutes in the sauna, then sit up to my neck (important because brown fat is concentrated in

the upper back) in the cold pool for five to seven minutes, then finish with a few minutes of rewarming in the hot spa. It's been fun to notice my tolerance naturally increase over time. At first, I could last comfortably in the cold pool for around two minutes; now seven is no problem.

Getting Started with Therapeutic Cold Exposure

- 1. Contrast showers:** Get your feet wet with this health practice by switching between cold and hot water for thirty seconds at a time during your daily shower(s). You'll likely find it a bit uncomfortable at first, but after a few days you'll get used to it and deeply appreciate the refreshing energy boost you obtain from some basic cold exposure.
- 2. Cold finish/cold showers:** After a handful of contrast showers, try to end every shower with two minutes of full-blast cold. After a handful of those, you can progress to taking a cold-only shower for a few minutes.
- 3. Ice baths or plunges:** Once you become a cold shower expert, consider upping your game to a bathtub or outdoor livestock tank filled with ice water, or finding an appropriate lake, river, or ocean for a cold plunge. In general, anything under sixty degrees Fahrenheit (fifteen degrees Celsius) is suitable for cold therapy.
- 4. Chest freezer:** Perhaps you will one day consider the ultimate affordable 24/7 home therapy experience—a chest freezer filled with water chilled to your desired temperature! Search YouTube for “chest freezer cold water therapy Brad Kearns” to learn how to get a chest freezer setup going.
- 5. Cryotherapy:** The increasingly popular practice of visiting a cryotherapy center for a short session inside an extremely cold air chamber is also an option. Some

purists claim that water offers more health benefits, and the high cost of memberships or single visits can be a deterrent.

Note: Greetings from Miami! This progression guide assumes that you are doing your cold exposure and then heading into a day amidst pleasant indoor or outdoor temperatures. If this is the case, rewarming naturally over time (including doing some light exercise or adding a clothing layer if necessary) will help maximize the fat burning benefits. If you are showering and then heading into the elements to install snow chains or work in an unheated warehouse, you may want to make cold exposure a seasonal practice or pair your sessions with rewarming via a hot shower or a sauna (as with the popular practice of contrast therapy).

Let your personal preference and your natural tolerance dictate the details of your regimen. Over time, you may notice a natural inclination to use colder temperatures and/or remain in the water for more time. Advanced enthusiasts will spend five to seven minutes in water in the thirties, ten minutes in water in the forties, and up to twenty minutes in water in the fifty-to-sixty-degree range. However, if you overdo it to the point of shivering and/or feeling punky for a while afterward, you will trigger protective mechanisms that actually reduce your energy, mood, and cognitive functioning in the hours following your cold exposure in reaction to what was perceived as a life-or-death threat.

Losing Excess Body Fat

In the excitement of adding cold exposure to the list of cutting-edge biohacking practices, we've forgotten to figure compensation theory insights into the equation. Cold exposure certainly activates brown fat and increases the burning of (white) body fat, but it's also clear from science and anecdotal evidence that cold exposure can stimulate appetite. Brad and I have conducted experiments to validate this insight. At anywhere from twenty minutes to one hour after a devoted

cold session, a hunger-inducing ghrelin spike reliably occurs. This is independent from circadian-influenced ghrelin spikes and seems to occur distinctly in tandem with cold exposure sessions. Research reveals that cold exposure causes a drop in blood glucose (because muscles are burning extra glucose—and fat—to rewarm), a likely reason for an ensuing appetite spike. Perhaps you can recall a time when you followed a hard day of skiing or chopping wood in the wintertime with a massive meal or string of meals? As your body burns calories to rewarm, appetite mechanisms command you to consume more calories to fuel the suddenly raging fire.

If you are serious about dropping excess body fat once and for all, my suggestion is to try to fast for a few hours after your cold exposure session, overriding any ghrelin spike that comes your way. After that unpleasant spike passes and your stomach quiets down, realizing that no food is coming anytime soon, your body will kick into accelerated fat burning and ketone production. This may give you a nice burst of mental clarity, or at least stabilize your mood, energy levels, and cognitive functioning for a few hours. Ben Greenfield, one of the pioneers in popularizing cold exposure in recent years, reports interesting data from the continuous blood glucose monitor he wore for two weeks while engaging in cold exposure. He claims the single most potent stabilizer of his blood glucose levels every day was his four-minute morning cold plunge!

For fat reduction, it's best to try to rewarm naturally instead of jumping right into a hot shower or undergoing the hot-to-cold contrast therapy I described. In mixing hot and cold, I'm going more for relaxation than fat reduction. Some extreme cold enthusiasts deliberately underdress after their sessions in an attempt to leverage the benefits for a longer time period. They also conduct independent efforts to run the thermostat in their homes a little cold in the spirit of Ray Cronise's shiver walks. If you decide to dabble in therapeutic mild cold stress, be sure to keep your hands and head warm if you underdress or expose yourself to low temperatures for an extended period of time. This will reassure your brain that you are in no

thermic danger and keep calorie burning elevated. Performing a handful of cold exposure sessions, as well as extended fasting sessions each week, can rank up there close to sprinting as a fat reduction secret weapon, so go for it!

Advanced Strategies for Fat Reduction—Journal Exercises

- 1. Fasted workouts:** Describe your current experience and competence level with fasted workouts. Using the ideas in this chapter as suggestions, list a progression of increasingly difficult fasted workouts to strive for in the months ahead.
- 2. Extended fasting:** Describe your current experience and competence level with extended fasting. List a progression of extended fasting efforts to strive for in the months ahead.
- 3. Sprinting:** Describe your current experience and competence level with sprinting. List ways to incorporate sprinting into your current fitness regimen, including specifics of a starting-point workout and a sensible progression to a more challenging session in the months ahead.
- 4. Cold exposure:** Describe your current experience and competence level with cold exposure. List a progression of cold exposure efforts to strive for in the months ahead.

The 12-Day Turbocharge

I hope your journey through this book so far has been as interactive and multidimensional as possible. This was the intention with the journal assignments at the end of each chapter and the encouragement to immediately do things such as ditch junk foods, optimize your sleep environment, monitor your exercise heart rate, and so on. Now it's time to plunge into the *Two Meals a Day* lifestyle in an intense and dramatic manner. It's time for the 12-Day Turbocharge! This stand-alone program draws upon all the knowledge and practical suggestions you have been exposed to in this book to create an experience designed to get you inspired and focused on long-term lifestyle transformation.

Every day for twelve days, you'll tackle an assignment in each of five areas: food, fasting, fitness, mindset, and lifestyle. Plan on devoting one to two hours per day to completing your action and journaling assignments. I recommend starting day 1 on a Monday so that weekend-appropriate challenges will fall on days 6 and 7. If you lag behind or face logistical challenges preventing you from completing an assignment, take note and make a commitment to do so as soon as possible. If it's appropriate and possible to double up and finish the missed challenge the following day or the day after, that's the best choice for continuity. If you can't squeeze the challenge in during the twelve-day block, be sure to complete it as soon as possible after that.

You'll want everything in your life to be just right when you commence the Turbocharge. Pick a start time when you feel focused, energized, and motivated to tackle a brief but challenging immersive experience. Make sure that your overall life stress levels are low and you aren't dealing with

any unusual burdens or obligations. If you have travel plans, are hosting out-of-town family or friends, or have nagging injuries that hinder your workouts, wait until things normalize before commencing the Turbocharge. Everything should feel comfortable as you proceed with your typical day-to-day routine at home.

Following is a list of what you'll need to ensure an enjoyable and successful Turbocharge. Please do the necessary research, organizing, scheduling, and purchasing beforehand.

Food and Fasting

- Serviceable kitchen with basic cookware and appliances
- Budget allocation for nutritious foods and celebratory meal preparations
- Natural-foods grocer and/or internet resource for high-quality foods
- Healthful cooking oils such as extra-virgin olive oil, avocado oil, and coconut oil as well as saturated fats such as butter, ghee, and lard

Fitness

- Wireless heart-rate monitor with chest strap transmitter and watch (the Polar FT1 model is affordable and accurate)
- Local venue for sprint workouts and MAF tests, such as a running track or a flat, smooth path or trail
- Local venue or internet resource for a formal movement class (yoga, Pilates, tai chi)
- Ideas and logistics for a grand play adventure in nature on day 7
- Equipment for a workplace variation project on day 8 (stand-up desk, low desk, micro-workout gear)

Mindset

- Spiral notebooks or other blank books for your *Two Meals a Day* and gratitude journals
- Vision board supplies: magazines, poster board, glue, art supplies, and/or digital imagery for a creating a “mind movie”

Lifestyle

- Blue-light-minimizing eyewear and/or light sources (orange or yellow UV-blocking lenses, orange lightbulbs, salt lamp)
- Cold exposure venue (ice bath or natural body of water under sixty degrees Fahrenheit—river, lake, ocean)

Day 1

Food: Kitchen and Pantry Purge

I hope you took immediate action to partially or completely rid your home of detrimental processed foods when you read about the kitchen and pantry purge in [chapter 1](#). But whatever state your fridge and pantry are in right now, it's time to finish the job! Discard all forms of refined industrial seed oils, grains, and sugars (see [here](#) and [here](#)). If any of these agents are still leaking into the picture, it's time to commit to zero tolerance for the Big Three for the duration of the 12-Day Turbocharge.

The major problem area to focus on is dining out, because your restaurant's salmon and broccoli plate or your take-out carne asada and guacamole is likely to have been prepared with industrial seed oils. Read labels when you purchase exotic herbal teas, kombuchas, or any offerings on the Starbucks menu, because added sugar is commonplace. Notice how much better you feel getting off the blood-sugar roller

coaster during the Turbocharge, and with any luck you will sustain long-term elimination of these foods or at least use them sparingly.

Fasting: Twelve-Hour Digestive Circadian Rhythm

Limit all manner of digestive functioning to a maximum of twelve hours today. This is a challenge you will carry forward for the entire Turbocharge and beyond. Pay particular attention to the fact that your digestive clock starts with the processing of any xenobiotic substance, even if it has no calories (e.g., coffee, tea, vitamins, etc.). From this baseline, the fasting category will involve consuming calories in a compressed window of time, trying a couple of extended fasts, and integrating workouts into your fasting period.

Fitness: Aerobic Workout at MAF Heart Rate

Calculate your “180 minus age” maximum aerobic function (MAF) heart rate in beats per minute. For example, a forty-two-year-old exerciser would have an MAF heart rate of 138 beats per minute (180 minus 42 equals 138). It’s extremely important to obtain an accurate measurement of your heart rate for all your cardiovascular workouts to ensure that you experience their intended metabolic benefits—promoting fat burning instead of sugar burning. As I said in [chapter 5 \(here\)](#), the most accurate heart-rate measuring requires the use of a wireless heart-rate monitor with a chest transmitter and watch.

I hope that you picked one up and will strap it on every time you conduct a cardio workout forevermore. Yes, it’s that important. It’s simply too difficult to rely on perceived exertion or manual spot checks of your pulse rate, because it’s easy to drift above MAF without a noticeable increase in perceived exertion. Even athletes with decades of experience require a constant reminder, in the form of a beeper alarm, to avoid exceeding their aerobic maximums. If you choose not to buy a wireless unit, you can perform the workout using gym equipment that’s equipped with a pulse meter or by using a

suitably equipped wristwatch. A truly MAF workout should feel comfortable at all times; you should be able to recite the alphabet or converse with an exercise partner without running short of breath.

Mindset: 12-Day Turbocharge Journal and Gratitude Journal

Start new sections in your *Two Meals a Day* journal to cover the assignments in the 12-Day Turbocharge—or start a brand-new journal if you wish to keep them separate. Similarly, start a separate gratitude journal or clearly designate the journal pages you use for gratitude entries.

Turbocharge journal: List some flaws, frailties, bad habits, past mistakes, and failures that you can forgive yourself for right now. These could be diet failures, flaking out on exercise ambitions, or aspects of your daily routine that have drifted into the “need to improve” category.

Gratitude journal: Make a list of several lifestyle circumstances you are grateful for as well as several health attributes you are grateful for. If you aren’t quite where you want to be with your present level of health, energy, and body composition, acknowledge the remarkable ability of the human body to respond to environmental signals and transform.

Lifestyle: Take a “Before” Photo

Snap a “before” photo in front of a full-length mirror wearing minimal clothing. Approach the experience without negativity and resolve to use the photo to keep you grateful, motivated, and accountable as you strive for body and life transformation goals.

Create a sleep sanctuary. Get rid of paperwork, piles of clutter, and any TV or computer screens in your bedroom. Tidy up your closet, bathroom, and nightstand areas as you strive for a minimalist effect. When in doubt, or if you haven’t used something in a while, toss it! Strive to achieve complete

nighttime darkness in the room. Use temporary window coverings while you look for permanent solutions such as new blackout curtains. Remove or tape over all minor light emissions and get rid of night-lights. Get a red or amber flashlight (far less disruptive to melatonin than the blue-light emissions of a regular flashlight) and place it at your bedside to use if you need to get up in the dark. Assess the noise level in your room and get a combination HEPA air filter–ionizer, a humidifier or dehumidifier (depending on your environment), or fan to emit white noise as desired. Find the most distant location you can tolerate to plug in your mobile device—ideally, in the hallway. If that isn’t possible, charge your phone out of reach of your bedside. This will minimize EMF (electromagnetic field) exposure and help you resist the temptation to check your phone at bedtime or first thing in the morning.

Journal

- Food: Comment on your once-and-for-all kitchen and pantry purge, including an itemized list of stuff you tossed. If you took care of business in [chapter 1](#), write about how your diet change has affected energy, mood, and cognitive performance to date.
- Fasting: Note your digestive function start time and end time.
- Fitness: Note your MAF heart rate calculations and workout notes.
- Mindset: Write your Turbocharge and gratitude journal entries.
- Lifestyle: Comment about your “before” photo and sleep sanctuary efforts.

Day 2

Food: Restock Healthful Foods

If you purged your kitchen and pantry and restocked them back when you read [chapters 1](#) and [2](#), this action item won't be as daunting as doing it in real time during the Turbocharge. If you indeed have built some momentum with plenty of nutritious options in the home and an absence of processed junk, go buy some extra special items today. But if today is ground zero for a restock, it's time to go on a shopping spree for delicious, high-quality, nutrient-dense ancestral foods. Locate the best natural-foods market in your community and talk with the staff to get recommendations for and insights into the most healthful options in each food category. Determine whether there is a co-op or farmer's market in your area where you can buy fresh foods every week. Try some internet resources for specialty items and ways to shore up deficiencies in your local stores, referring to the many suggestions presented by category in [chapter 2](#) and recapped in the day 5 material ([here](#)).

Fasting: 14-10 Eating Pattern

Strive to complete a fourteen-hour overnight fasting period before consuming your first calories of the day. Expect to feel alert, energetic, and focused without food during the morning hours. This is representative of adequate metabolic flexibility—you are burning body fat and perhaps making some ketones as reliable sources of energy before your first meal. If you find yourself struggling with low energy, mood swings, brain fog, or sugar cravings during the fasting period, go ahead and eat your first meal and record the duration of your fast. If necessary, downscale the rest of the fasting assignments so you don't exceed your capabilities and trigger your body's fight-or-flight response.

Fitness: Aerobic and Strength Assessments

Conduct a maximum aerobic function test by covering a predetermined distance or along a route that takes around ten

minutes to complete. Maintain a heart rate as close as possible to your MAF calculation of “180 minus age” in beats per minute. Repeat the test every four to six weeks over the exact same course and distance.

Your strength assessment will consist of a single set of each of the primal essential movements: push-ups, pull-ups, squats, and planks (see [here](#)). Do as many reps as you can until failure with each exercise. Rest at least five minutes between exercises to ensure a fresh, high-quality effort. Record the results in your journal and repeat the test every four to six weeks. Expect to improve your results over time as you adhere to an effective strength-training routine. If you have distinct athletic goals or performance markers that you currently keep track of, feel free to choose alternative assessments, such as a timed 400-meter sprint or a set of bench presses or dead lifts. As it is in the MAF test, the key is to repeat the exact same strength assessments in order to accurately track improvement or regression.

Mindset: Identify Self-Limiting Beliefs and Behavior Patterns

Complete this journal exercise with total honesty and objectivity. Make one list of self-limiting thoughts and beliefs and another list of self-limiting behaviors. For example, harboring a negative body image goes in the former category, while eating too fast goes in the latter category. In addition to the overt issues you are currently dealing with daily, spend some time in reflection in order to assess whether there is anything lurking in your subconscious that can be added to the list. Write a brief explanation of the specifics of each item. For example, you may note a connection between eating too fast and growing up in a large family where you had to compete for food at the table.

Lifestyle: Dark, Quiet, Mellow Evening

Dedicate the final two hours before bedtime to winding down

—no screens, no excitement, and minimal light (use UV-blocking orange or yellow lenses and/or orange or yellow light sources). Choose mellow activities such as quiet socializing, a neighborhood stroll, foam rolling, drawing or practicing other art forms, taking a warm bath, giving or receiving a massage, or reading in bed. Tomorrow you will pick and choose a few of your favorite activities to create a soothing bedtime ritual that you will repeat each evening.

Journal

- Food: Comment on restocking your kitchen and make an itemized list of foods you purchased and the sources you used.
- Fasting: Note the start time and end time of your eating window, and include a subjective evaluation of your 14-10 experience.
- Fitness: Record the results of your MAF test and strength assessments.
- Mindset: Complete the self-limiting beliefs and behaviors journal assignments.
- Lifestyle: Make notes about your mellow evening, particularly what you enjoyed most, so that you might integrate that into tomorrow's evening routine.

Day 3

Food: Healthful Recipe Research

Spend thirty to sixty minutes reviewing the recipes in this book, and/or other cookbooks that interest you, and list half a dozen of the most appealing—those that have the potential to become go-to meals for you and your family. Identify one meal that you'll prepare for a celebratory dinner for family and friends on day 6, and invite your guests today. Compile a list

of ingredients from your recipe choices and purchase them on your next shopping trip.

Fasting: 14-10 Eating Pattern

Complete another day of 14-10 fasting and eating, because the challenges will escalate quickly during the Turbocharge.

Fitness: Introductory Sprint Workout

Perform the following in sequence for a safe and effective sprint session:

- aerobic warm-up,
- dynamic stretching (search for “Brad Kearns pre-workout dynamic stretching routine” on YouTube),
- preparatory technique drills (search for “Brad Kearns running technique drills” on YouTube), and
- six brief accelerations—wind sprints—lasting around five seconds each.

For the main set of sprints, perform explosive efforts that are well within your capabilities, and leave the workout feeling pleasantly fatigued and satisfied instead of depleted and exhausted. With the success of this effort, you will conduct a full-length sprint workout on day 8. If you struggle a bit today, just repeat this workout on day 8. Escalate the degree of difficulty of your sprint workout only when you feel well prepared and 100 percent rested and motivated for a peak-performance effort.

Mindset: Destroy and Reframe Self-Limiting Beliefs and Behaviors

Address each self-limiting belief and behavior on yesterday’s list and implement the Jack Canfield strategy of describing how it limits you and deciding how you would rather be, act, or feel (see [here](#)). Then create a turnaround statement that

affirms your desire to transform. Be precise with your language so you can “buy into” new beliefs and behaviors that seem realistic and doable. Here’s an example: if you harbor a negative body image, this may repeatedly discourage you from adhering to dietary restrictions or a regular exercise routine. When you encounter the slightest bit of resistance that requires discipline and resolve to overcome, your negative body image will sabotage your best intentions, and you’ll regress back to your undesirable baseline. Knowing that a negative body image won’t just vanish with a breezy affirmation, perhaps you can form a new belief: you can make steady progress with sustained effort. Even if you dislike or hate what you see in the mirror right now, you can still completely buy into this new belief, which affirms that steady progress is possible. This will free you to take necessary action and stay the course, even through adversity.

Lifestyle: Create a Soothing Bedtime Ritual

Today you can string together a few of your favorite evening pastimes that don’t involve screens and create a template for a soothing bedtime ritual that you will repeat each evening. Perhaps some things really clicked for you during last night’s exercise, and you can draw upon a lifetime of experience with activities that make you feel calm and relaxed. Perform the same sequence every evening until it becomes automatic. When it’s time to commence the ritual, going through the motions without having to use brainpower to remember what’s next will serve to deeply relax your mind and body in preparation for sleep. You will likely be amazed at the benefits of making a deliberate transition out of the dynamic and highly stimulatory nature of hectic modern life into a ritualistic pattern that delivers some of the same mind-body-connection benefits as a session of yoga, tai chi, or meditation.

Your ritual might best start with a phone alarm reminding you that it’s time to begin. From there, perhaps you’ll choose to take the dog out for a ten-minute stroll around the block, return home and brew some herbal tea, spend five minutes

foam rolling, then make entries in your gratitude journal while you enjoy the tea. After that, head to the bedroom for lights-out.

Options abound for putting together a sequence that's relaxing and pleasurable. In the wintertime, my go-to evening ritual is a lengthy soak in the hot tub with my wife, Carrie, followed by a five-minute plunge into a cold pool, followed by a few minutes of rewarming in the spa. After a quick shower, I hop on a temperature-cooled mattress (ChiliTechnology.com), spend fifteen to thirty minutes reading (using a small headlamp in a dark room), and then it's lights-out. In the summer, Carrie and I will grab our dog, Shanti, for a final romp around the neighborhood (which takes between five and twenty minutes—depending upon the number of interesting neighborhood smells apparently). Back home, I'll take a five-minute cold shower, then enjoy some final reading. The cold shower and year-round cooled mattress help facilitate a lowering of body temperature—one of the key triggers for melatonin release and sleepiness.

Whatever sequence you put together, make sure the duration is short enough to easily manage every night. Feel free to add or subtract certain elements over time, but make sure you always have a repeatable template in place.

Journal

- Food: List the recipes you found and make a list of ingredients to shop for.
- Fasting: Note the start time and end time of your caloric consumption and subjectively evaluate the 14-10 window.
- Fitness: Record details of your sprint workout—reps, duration, recovery intervals—and make a subjective evaluation of its effectiveness.
- Mindset: Complete your self-limiting beliefs and behaviors journal assignments.

- Lifestyle: Write a detailed description of your soothing bedtime ritual and comment upon the experience.

Day 4

Food: Freshly Prepared Food—Not Packaged, Processed, or Frozen

Prepare all your meals from scratch and consume only fresh foods today. Obviously, some packaged foods—such as eggs in a carton, meat in a wrapper, and other fresh, minimally processed items—are fine, as is the incidental use of healthful sauces, dressings, and toppings (read labels to avoid products that contain sweeteners and industrial seed oils).

Fasting: 14-10 with No Snacking

Time to up the ante gracefully in terms of your metabolic flexibility. Maintain a fourteen-hour fasting window, as you did on the previous two days, but inside your ten-hour eating window, don't consume any calories between meals. With any luck you were dissuaded from snacking as soon as you read the introduction to this book, but today it's time to clean up any loose ends in this area and make a concerted effort to catch yourself, even if you reach for something insignificant, such as a handful of nuts.

Fitness: Micro Workouts

Today you will delve deep into the wonderful world of micro workouts (see [here](#)) by performing a minimum of five distinct sessions lasting between one and five minutes each. Do a micro workout upon awakening to get the energy flowing, then use them as strategic breaks from prolonged periods of stillness during the workday. String together a few brief, explosive exercises or perform a sequence of flexibility and mobility movements. As I hope you will discover today, a minimal time investment can have a huge impact on your

energy, cognitive focus, overall mood, and sense of well-being.

Record the specifics of each micro workout in your journal. See if you can formulate a handful of go-to sequences that you can repeat without having to exert any cognitive or creative effort. For example, jumping up from your desk to perform twenty deep squats, make twenty wall angels, and climb five flights of stairs can become your set routine for the workplace.

Mindset: Turnaround Statements—Subconscious Programming

Review the turnaround statements you generated yesterday and implement Jack Canfield's recommendation to repeat each statement for two to three minutes several times per day for a minimum of thirty days. Today, conduct a minimum of five sessions, and strive to do the same each day for the next thirty days. Bookmark the journal page(s) where you wrote your turnaround statements for easy reference.

Lifestyle: Create a Winning Morning Routine

Experiment with a few different ideas, then lock into a deliberate sequence of activities that you can form into a daily morning habit over the next few weeks. Ideally, the routine will involve exposure to direct sunlight and movement to get blood and oxygen flowing throughout the body. Perhaps you'll favor taking a quick stroll outdoors, completing a series of simple yoga moves on the lawn, then sitting on the patio for a few minutes with a cup of tea and your gratitude journal. Athletes might design a customized flexibility and mobility routine, including some light strengthening exercises, and end with a couple of minutes of cold exposure (see [here](#)). Keep your phone on the sidelines and discover a few morning behaviors that make you feel good. Adding elements that require counting (e.g., ten sun salutations, holding a back arch for a count of twenty, writing three gratitude journal entries, taking a cold shower for two minutes) improves the

mindfulness aspect of the morning ritual. Over the next few weeks, dial in a defined routine that you can execute on autopilot every day.

It's critical to make absolutely sure your routine is short and simple enough to be sustainable over the long run. Tone down your eagerness to plunge into the "ideal" morning routine and err on the conservative side when you create your first template. You must apply the commitment and discipline necessary to repeat the sequence each day until it becomes programmed into habit. Once a strong habit is in place, you may choose to increase the duration or degree of difficulty of the template as desired, making it much more likely to succeed. If you blast out of the gate with an hour of power during the 12-Day Turbocharge, real life has a way of messing with your grand ambitions.

Listen to "The Lasting Benefits of a Morning Routine"—the December 10, 2019, episode of Brad's *Get Over Yourself* podcast—as he details his four-year journey of creating and sustaining an increasingly elaborate daily routine that involves flexibility, mobility, core strengthening, and injury prevention. He describes starting out with a modest sequence of moves designed to prevent injury during sprinting and jumping. When filming it for YouTube (search for "Brad Kearns morning routine"), he was surprised to learn that what he thought was a five-minute session to get the blood flowing actually lasted twelve minutes! After two years of consistent daily execution, Brad was compelled to add a couple of new movements specific to his fitness goals, then a couple more in the following months, and a couple more further down the road. Today, his daily routine lasts thirty-five minutes, and optional add-on items frequently make it last forty-five minutes. What started as a simple alternative to reaching for the phone upon awakening has evolved into quite a strenuous and effective workout. Completing the sequence each day has dramatically elevated the platform from which Brad launches his formal sessions of sprinting and high jumping.

Journal

- Food: Describe the fresh meals you prepared and make a subjective evaluation of the experience.
- Fasting: Note the start time and end time of your caloric consumption and subjectively evaluate the 14-10-and-no-snacking experience.
- Fitness: Write a detailed description of each micro workout. Create some more fun workouts to add to your template in the future.
- Mindset: Comment on the turnaround statement exercise.
- Lifestyle: Write a detailed description of every element of your morning routine. Create a repeatable routine for the future.

Day 5

Food: A Deep Dive into Superfoods and Premium Foods

Spend some time exploring local grocery options and the internet for foods such as grass-fed organ meats, wild-caught seafood, first-cold-pressed olive and avocado oils, artisan bean-to-bar chocolate, and other premium-quality products (see [chapter 2](#)). Prepare some recipes using ingredients that are a step up from the usual supermarket offerings. See if you can develop a deep interest in a certain product category and learn how it's grown, harvested, and marketed, just as a wine connoisseur would study a particular varietal.

For meat, try [ButcherBox.com](#), [LoneMountainWagyu.com](#), [GrasslandBeef.com](#), [ThriveMarket.com](#), [WildIdeaBuffalo.com](#), and [ForceOfNature.com](#).

For artisan chocolate, try [Askinosie.com](#), [CoracaoConfections.com](#), [CreoChocolate.com](#), [HuKitchen.com](#), and [KellerManniChocolate.com](#).

LillieBelleFarms.com, RitualChocolate.com, and TazaChocolate.com.

For seafood, try VitalChoice.com.

Visit Amazon.com's grocery section to find some excellent cold-pressed oils and other premium products.

Fasting: 16-8 Eating Pattern

The 16-8 eating pattern typically entails finishing eating by 8:00 p.m. and consuming your first calories at 12:00 noon the next day. If you prefer to pursue a morning-evening meal pattern, as described in [chapter 6](#), keep this challenge as a 14-10 pattern with no snacking or midday meal in between.

Fitness: Breakthrough Aerobic Workout

Extend the duration of your typical cardiovascular session to achieve a fitness breakthrough. When you feel fully rested and energized for a challenging session, try to go one and a half times your normal duration—or beyond! Be sure to maintain your heart rate at “180 minus age” in beats per minute (or below) at all times to stimulate maximum fat burning and minimal glucose burning.

Mindset: Step-by-Step Action Plans

After reviewing your mindset assignments of the previous three days, list up to three beliefs or behavior patterns that you intend to change. Create a detailed step-by-step plan of action for each one. Describe how you are going to increase the importance and prioritization of the goal as well as the repetition and endurance necessary to succeed. If you plan to shop for more healthful foods, for example, list the local stores or internet resources that you intend to patronize. If you are going for physique transformation, try to get as specific as possible about your goal. Instead of a general statement such as “I want to look good in a bikini by summer,” state your desired new waist or dress size or a fitness benchmark you

want to attain.

Lifestyle: Advanced Strategies—Cold Exposure Session 1

It's time to take the cold plunge! Get comfortable in your warm shower, then begin some deep, diaphragmatic breaths, put your hand on the nozzle, and crank the handle all the way to cold and leave it there for two minutes. It's very important to breathe your way through this challenge so you override the predictable panic reaction that happens when the cold water hits. Set a goal of two minutes, but if you begin to shiver or feel truly uncomfortable, know that you can stop and try to go longer next time. If it's wintertime and you're heading out into cold weather, it's okay to finish up with hot water. But if you aren't facing harsh conditions, strive to rewarm naturally over the ensuing thirty minutes by dressing warmly or doing some light exercise.

If you have sufficient confidence to take on a more ambitious challenge, find a cold ocean, river, or lake nearby and enjoy a dip. You can also purchase twenty to forty pounds of ice and fill your bathtub for a brief immersion. Breathe deeply throughout the experience and get out before you start shivering.

Journal

- Food: List the details of your food sources and purchases.
- Fasting: Note the start time and end time of your caloric consumption and subjectively evaluate the 16-8 experience.
- Fitness: Record the details of your breakthrough aerobic workout, including heart rate and perceived rate of exertion. Strive to perform a breakthrough session once a month, and gradually extend the duration of your workout over time.

- Mindset: Create step-by-step action plans, as directed [here](#).
- Lifestyle: Note the duration and other details of the cold plunge and write a subjective evaluation of the experience.

Day 6

Food: Celebratory Meal

Shop for fresh ingredients and prepare a celebratory meal from scratch. If you want to ask guests or children to contribute a side dish or healthful dessert, go ahead. See if you can steer a bit of the dinner conversation toward your 12-Day Turbocharge adventure! Note that day 11 features another celebratory meal. You don't have to make a big fuss each time, but see if you can have one grand gathering and perhaps a smaller gathering on the days that are most convenient for you.

Fasting: 16-8, No Snacking

Spend another day in the 16-8 pattern, paying special attention to avoiding calories between meals.

Fitness: Formal Movement Class

Do your best to find an instructor-guided yoga, Pilates, tai chi, or barre session with other students in a convenient location. If it's not possible to join a class, search YouTube for a good video and follow along at home. There is an assortment of excellent options on YouTube, so try searching for "hatha yoga for beginners," "restorative yoga for beginners," "tai chi for beginners," "Pilates at home for beginners," or "barre at home for beginners." Give the session your full attention and energy, with no distractions. Focus on the restorative benefits of these practices and be sure to stay within your current fitness capabilities.

Set a long-term goal of attending a formal class on a regular basis—at least twice a month or, ideally, at least once per week. Also, pick and choose your favorite elements of guided classes and create your own mini session that you can use as part of your morning routine or as a micro workout. Search YouTube for “sun salutation for beginners”—that’s a great mini session of flowing yoga poses that integrates breathing and stretching for excellent mind-body benefits.

Mindset: Subconscious Programming—Note Card, Vision Board, Mind Movie

For each of yesterday’s step-by-step action plans, create a brief statement and/or acronym that is meaningful and inspirational to you. Write these comments on a sticky note or index card and place it in a location where you will see it often during the day. Take things a step further by creating a vision board, a.k.a. a dream board, relating to your future goals. This popular practice entails gathering photographs, magazine clippings, drawings, and affirmations in a collage and displaying it in an ideal spot for frequent viewing.

If a digital experience interests you, you can use a simple slide show or more advanced video production software (iMovie, Final Cut Pro, Photoshop Elements) to create a “mind movie,” as recommended by Dr. Joe Dispenza—neuroscientist, peak-performance expert, and bestselling author of *Becoming Supernatural*. Compile imagery representative of your “perfect life”—perhaps photographs of homes, cars, vacations, social gatherings, or fitness accomplishments such as climbing a mountain—into a three-minute presentation that you’ll watch repeatedly. Viewing your index card, vision board, and/or mind movie on a regular basis will deliver inspirational reminders of your goals, commitments, values, and vision. This will help increase motivation, improve accountability, and counter the self-limiting subconscious programming that keeps you from feeling deserving of realizing your dreams.

Lifestyle: Nap Like a Champ

Take advantage of your Saturday and enjoy a world-class nap. Create an environment as dark and quiet as possible; you may need to use a white noise machine in the afternoon. Lie down for at least thirty minutes—up to an hour or longer if desired. Try not to use an alarm unless absolutely necessary. Take the pressure off and allow your body to awaken naturally. Even if you can't fall asleep, just relax with a blindfold or eyeshade over your eyes and do some intentional breathing to calm your mind and enjoy some valuable downtime.

Journal

- Food: Jot down details about the preparation and enjoyment of your celebratory meal.
- Fasting: Note the start time and end time of your caloric consumption and subjectively evaluate the 16-8 experience.
- Fitness: Comment about your formal movement class.
- Mindset: Make detailed notes about the visuals you want to include on your note card, vision board, or mind movie as a catalyst for starting and completing the project.
- Lifestyle: Write down your thoughts about your nap.

Day 7

Food: Hara Hachi Bun Me

Hara hachi bun me is the 2,500-year-old Confucian practice of eating meals only to the point of feeling 80 percent full. The practice remains a cultural mainstay in the longevity hotbed of Okinawa and in religious and spiritual traditions such as Zen and Ayurveda. The Blue Zones longevity movement identifies this practice of eating to satisfaction—but not fullness—as one

of the Power 9 attributes common to long-lived populations across the globe. Once you attain satisfactory metabolic flexibility, you can use the practice of hara hachi bun me to drop excess body fat. While I would consider my metabolic flexibility to be outstanding, I'll certainly acknowledge that there is room for improvement when it comes to my eating environment, pace, and tendency to eat a bit beyond satisfaction out of reflex.

Today, make a concerted effort to eat your meals in a calm, quiet setting. Chew each bite twenty times or more to activate the salivary enzymes and facilitate proper digestion. Pay close attention to the point at which you achieve satisfaction and start implementing a habit of pushing the plate away when you're 80 percent full instead of routinely finishing everything on it.

Fasting: 16-8 with Fasted Morning Aerobic Workout

Conduct a break-even workout of moderate duration and difficulty. Take care to keep your heart rate at or below "180 minus age" in beats per minute for the duration of the session.

Fitness: Play Adventure in Nature

Knock off several health objectives at once with an outing in which you can enjoy sunlight, fresh air, cardiovascular exercise, and the beauty of nature. Try to include some brief, high-intensity, explosive bursts of strength or speed. Two of my favorite recreational endeavors are stand-up paddling (SUP) and Ultimate Frisbee. My weekly Ultimate match is a seven-on-seven battle royale with a very high level of physical exertion and competitive intensity. It's an absolute blast to take the field with accomplished athletes half my age and try to hang in there. My SUP outings are a more peaceful and solitary interaction with the ocean. It's the single best calming experience I've ever discovered, and it also delivers a very good cardiovascular workout, upper-body and core strengthening session, and total-body proprioception and

balance challenge.

It's great to get out with family and friends for the occasional grand adventure, in which you learn a new activity such as SUP or rock climbing. However, your play outings don't have to be complex, competitive, or expensive. A lengthy hike with a picnic midway can be as rejuvenating as a day at a luxury spa. The main objective is to escape the pressures and predictability of your daily routine, take a distinct break from hyperconnectivity, and get your body moving in a beautiful natural setting.

Mindset: Winning Logistics and Visual Cues

You can work hard to reframe self-limiting beliefs and devise a lovely step-by-step process to reach your goals, but if your daily environment is not fully functional and supportive, it can greatly inhibit your chances of success. Today, spend some time rearranging your home and workplace in a way that will support and encourage you to adhere to your health and fitness goals. Make sure your food-preparation and dining areas are clean, tidy, well organized, and fully stocked with the books, tools, appliances, and ingredients you need to prepare delicious meals. Create inviting micro workout spaces at home and at work, with gear placed in plain sight to entice you to partake at any time. Post a list of exercises in your micro workout area and a shopping list of healthful foods on the fridge. Place an index card or a sticky note on your computer with a few trigger phrases that will help you stay focused on high-priority work, avoid distractions, and take frequent breaks. Create a note on your mobile device describing your favorite workout parameters and benchmarks for easy reference when you get to the gym or Pilates class. Stay focused, motivated, and accountable by operating in an environment designed for success!

Lifestyle: Screen and News Fast

Today, do the best you can to put your devices away and enjoy

a Sunday filled with outdoor activity, in-person socializing, reading, hobbies, or solo reflective time. Today's play adventure will automatically facilitate your success. Look at your phone and computer only when absolutely necessary. In addition, take a daylong break from consuming broadcast and internet news. A large percentage of news and clickbait is designed to elicit fear and anxiety through sensationalist, high-shock-value programming. Instead of monitoring the pulse of the crazy world, take a breather and relish the simple pleasures of being present and attentive to your immediate environment.

Journal

- Food: Comment about your hara hachi bun me experience.
- Fasting: Note the start time and end time of your caloric consumption and subjectively evaluate the 16-8 experience and your aerobic workout.
- Fitness: Comment on your grand play adventure in nature.
- Mindset: Record details of your efforts to optimize environmental logistics and create visual cues.
- Lifestyle: Write down thoughts about your screen and news fast.

Day 8

Food: Heightened Awareness

Put several challenges into play today as you escalate the degree of difficulty of your Turbocharge: do not snack; practice hara hachi bun me eating; consume only freshly prepared foods; and spend time looking and/or shopping for interesting new recipes.

Fasting: 16-8 with Fasted Sprint Workout

You are ready for the 16-8 with fasted sprint workout challenge—provided you conduct the sprint workout properly! Make sure the session is not exhausting and depleting by adhering to the parameters detailed in [chapter 5](#) (see [here](#)) and in today's fitness challenge (see below). In the hours after the workout, try to move frequently. This will help speed recovery, boost fat burning, and make you less likely to succumb to carbohydrate cravings.

Fitness: Conduct a Full Sprint Workout

Hopefully you can conduct a running workout but choose no-impact or low-impact activities if necessary. Go through an aerobic warm-up, including dynamic stretching, preparatory drills, six wind sprints lasting five to seven seconds each, and then perform a main set of between four and ten sprints at 95 percent effort (see [here](#) for guidelines). Focus on being explosive, preserving excellent form, and staying within your capabilities. Sprint for ten to twenty seconds (closer to ten if you're running, closer to twenty for no-impact or low-impact sprints), then enjoy luxurious rest intervals that are at least five times longer than your sprint.

As soon as you finish the session or as soon as you get home, lie down with your feet elevated and breathe deeply for ten minutes. Dr. Jannine Krause, functional medicine physician and host of *The Health Fix* podcast, cites research concluding that this mini nap session shortly after a high-intensity workout will help you achieve a rebound parasympathetic response to the sympathetic stimulation of the workout. This will help you return to homeostasis more quickly and speed your rate of recovery from these stressful but highly beneficial workouts.

Mindset: Turnaround Behaviors and Habit Formation

Today you will bring your turnaround statements to life by choosing three actions designed to deactivate flawed

subconscious programming and establish empowering new habits. Start by reciting a turnaround statement of your choice, as described in the day 4 mindset assignment (see [here](#)). Immediately afterward, take an action that supports the turnaround statement. Repeat this process three times over the course of the day. If you are working on not becoming distracted by and reactive to technology first thing in the morning, for example, perhaps you have formulated a turnaround statement saying that you always prioritize fitness over tech addiction. Recite the statement, then commence the morning routine you designed on day 4. If you're trying to break the habit of idle snacking in the afternoon, say, recite your turnaround statement, then immediately conduct a micro workout as a replacement for a snack.

Lifestyle: Nature Immersion

Get out of your work environment at lunchtime and try to find the most immersive nature experience in your vicinity. If you are in a highly urban setting, such as a downtown high-rise, do the best you can to simulate nature. The fern grotto and indoor fountain in your building lobby were designed for just this reason—as proxies for the benefits of the outdoors. Take inspiration from Japan's forest-bathing practices and imagine yourself decreasing stress hormones, lowering blood pressure, and stabilizing your mood—a parasympathetic reset that will bring the necessary balance to your hectic workday. As you learned in [chapter 5](#), the best results occur when you can become truly fascinated, so give nature the undivided attention of all your senses and leave your digital device behind.

Journal

- Food: Comment about your combination challenge (no snacks, eat only until 80 percent full, limit yourself to fresh foods, research grocery and internet options).
- Fasting: Note the start time and end time of your caloric consumption and subjectively evaluate the 16-8 protocol

with the fasted sprint workout.

- **Fitness:** Write down details of your sprint workout—reps, duration, recovery interval, and a subjective evaluation of the experience.
- **Mindset:** Note your thoughts about today’s turnaround statements paired with behaviors.
- **Lifestyle:** Write down your thoughts about your nature immersion.

Day 9

Food: Intense Scrutiny

Now that your pantry is cleaned out—whether you did it on day 1 or after reading [chapter 1](#)—and now that you’ve had some time to live with the new foods in your home, it’s time to closely examine your kitchen for any lingering problem foods. It’s likely that you have items in the pantry or fridge that contain processed sugars, grains, or objectionable oils. Review the labels and see if you can find anything else to toss. Write some notes in your journal about your dining-out habits over the past nine days and consider whether any entrees or prepared foods might have contained ingredients that you vowed to eliminate. This exercise is designed to help you to refine your game so that in the future, your seed oil consumption will be near zero and sugars and grains will be only occasional indulgences.

Fasting: 18-6 Eating Pattern

Did you read that carefully? An eighteen-hour fast followed by a six-hour eating window! This should be no problem for you at this point, but we’ll pair this escalated effort with moderate exercise to be sure you can handle it.

Fitness: Recovery Workout

Start with some intentional breathing and dynamic stretching (search YouTube for “Brad Kearns dynamic stretching routine to start your day”). If you have a foam roller, spend five minutes doing a full-body roll over the big muscle groups. When you find a “trigger point” of tightness, apply direct pressure to that spot for ten seconds, then resume rolling along the full length of the muscle group. Be sure to breathe deeply through the discomfort when you hit a trigger point.

Next, try a short sequence of brief bursts of intensity paired with lengthy recovery intervals. For example, get on a stationary bike, elliptical machine, rowing machine, or anything else that’s no-impact—or jump in the swimming pool—and sprint at 85 percent effort for five seconds. Spend the next sixty seconds breathing deeply and focusing on lowering your heart rate. Try to get into a trancelike state in which you command your respiration and heart rate to lower quickly. Repeat this sprint-and-recover sequence up to six times. This strategy will hone your ability to stimulate parasympathetic activity so you can relax on cue whenever you experience any form of fight-or-flight stimulation—an argument, a hectic situation at work, a traffic jam, and so forth. Finish your workout with some nonstrenuous flexibility and mobility drills and dynamic stretching.

Mindset: Mind-Control Exercise

Choose one of the practices described in [chapter 4](#) or [chapter 7](#) for today’s project. The objective of this exercise is to experience how the mind can influence cellular function. Try an intentional breathing exercise (search YouTube for “guided Wim Hof breathing”); take a cold shower or cold plunge (search YouTube for “Brad Kearns chest freezer cold water therapy”); or go through a priming exercise (search YouTube for “Tony Robbins guided morning routine”). Alternatively, challenge yourself to face a stressful everyday situation with a resolve to control your attitude and emotions. If your rush-hour commute stresses you out, hop into the slow lane, relax your ETA expectations, and enjoy an audiobook or podcast. In

this manner, you transform an experience that you (and most all of us!) deem to be inherently stressful and turn it into a pleasure cruise. If you have a strained relationship with a friend, family member, or work colleague, initiate a telephone or in-person conversation in which you commit to staying positive, polite, respectful, and validating. Set an intention for healing and progressing instead of falling back into familiar dysfunctional patterns. If necessary, “fake it till you make it,” advice legitimized by bestselling relationship author Dr. John Gray.

Lifestyle: Disciplined Use of Technology

Execute some heroic acts of discipline and restraint with your screen use today. Complete your morning movement routine and enjoy some personal or social time without taking so much as a glance at any digital device. If you typically listen to music or podcasts while exercising, spend today’s workout listening instead to your breath and increasing your awareness of technique and muscle movement. When the workday is done, implement a hard stop by powering down or theatrically shutting the laptop lid. Make sure you’re finished with all screens at least ninety minutes before bedtime and devote the final segment of your evening to socializing and your soothing bedtime ritual.

Journal

- Food: Comment about your second kitchen purge and your recent dining-out habits.
- Fasting: Note the start time and end time of your caloric consumption and subjectively evaluate the 18-6 window.
- Fitness: Describe every element of the recovery workout in detail and make a subjective evaluation of the experience.
- Mindset: Evaluate the mind-control challenge(s) you took on today and what you learned from the experience.

- Lifestyle: Write about your disciplined use of technology.

Day 10

Food: New Recipe, Celebratory Meal

Try an interesting new recipe from the offerings in this book or another book of your choice. Host another gathering or serve the dish to the usual diners at home. During your preparation, see if you can slow things down and appreciate the meditative aspects of mundane vegetable chopping or pot stirring. Notice how being hands-on and engaged from start to finish creates a vastly richer dining experience than ordering takeout.

Fasting: Day Off!

You deserve a day off from the escalating fasting challenges. Keep to your maximum digestive-function window of twelve hours, though. Get ready for a twenty-four-hour effort on day 12!

Fitness: Workplace Variation

Follow the recommended 20-20-20 strategy for your eyes (take a screen break every twenty minutes to gaze at an object twenty feet away for twenty seconds) and do some brief counterbalancing exercises such as making wall angels. Take a five-minute break every hour, getting up from your desk for a quick visit outdoors and/or a brief micro workout. Take an extensive midday break to get into fresh air and open space and recharge your cognitive batteries.

Extend today's assignment by creating a few alternative arrangements for your traditional work desk, both at the office and at home. Devise a makeshift stand-up desk or create a low desk by placing your laptop on a coffee table, then sitting on a stool, a BOSU ball, or the floor. Experiment for the next several days as you consider your preferences for a dynamic

work environment. Remember, variation is the key. A hydraulic worktable that easily shifts from stand-up to sit-down is fantastic, and a BOSU ball makes the low-desk experience inviting and fun.

Mindset: Mindful Meals

Enjoy both your meals today with full attention, awareness, and gratitude—including, of course, the meal you prepare from scratch—for a start-to-finish gratitude experience. During the meal, engage all your senses with a deep appreciation for the nourishment and the effort you made to create something special. See if you can encourage your dining companions to depart from the typical rushed and distracted mealtime dynamics and enjoy a sophisticated culinary celebration.

Lifestyle: Creating Prioritized To-Do Lists

Spend five to ten minutes first thing in the morning and five to ten minutes as soon as you begin work to create prioritized to-do lists for both your personal life and your work. Get everything that's rolling around in your head down on paper, then carefully rank the tasks in order of priority. You may want to split the prioritized to-do items into short-term (within a week) and long-term tasks. As you go about your day, refer to the lists frequently and methodically proceed through each task in order. Notice how easy it is to get pulled into doing stuff that's not on the lists or spend excess time and effort on low-priority tasks. Take some notes along the way to identify both struggles and successes.

You can enter your initial to-do lists in your handwritten journal today, but consider transferring them over to digital to-do lists for long-term reference. This way, you can easily add, delete, and rearrange the order of priority. Consider using an application that automatically synchronizes data across devices, such as Apple's Notes app or the popular Evernote app, which offers free and premium versions for all platforms.

If you are a dyed-in-the-wool devotee of a low-tech FranklinCovey planner, Moleskine book, or other paper product, that's fine, too. Just make a point to spend some extra time today in planning mode.

Journal

- Food: Comment about the new recipe you tried and the celebratory meal you enjoyed.
- Fasting: Write about what it felt like to take a day off.
- Fitness: Note your thoughts about your movement breaks and workplace variation efforts.
- Mindset: Record details about your mindful dining experiences.
- Lifestyle: Create to-do lists as directed and subjectively evaluate the experience.

Day 11

Food: Foods to Avoid—Review

Spend some time today reviewing the kitchen and pantry purge section of [chapter 1](#), which lists the specific items and brands to avoid in various food categories. Frequent review will help you commit the best foods for success to memory so your decision making at the supermarket and online can feel automatic and effortless.

Fasting: Twelve-Hour Digestive Circadian Rhythm

Another easy day as you gear up for a twenty-four-hour fast tomorrow. But remember to keep your digestive-function window at twelve hours.

Fitness: Extended Walking Day

Get out and explore your community on foot as you never have before. Throw some incentives into the mix, such as walking at least a mile (and maybe much more if you can handle it) to a nice restaurant or, okay, even a gourmet dessert joint. Get your entire family involved and resolve to integrate more pedestrian experiences into family life.

Mindset: Gratitude Exercise

Celebrate the accomplishment of reaching this point in the challenging 12-Day Turbocharge! Spend 5 to 10 minutes journaling thoughts of gratitude about your 12-Day Turbocharge experience. Ideally, conduct this exercise in a calm, quiet, relaxing natural setting. Replay some of the highlights of the challenges you have conquered so far, and be sure to maintain a smile throughout!

Lifestyle: Advanced Strategies—Cold Exposure Session 2

Time to up the ante a bit from your first foray into the cold by spending longer in the shower or going for a full immersion in an ice tub or perhaps a natural body of water that's well under sixty degrees Fahrenheit (fifteen degrees Celsius). Remember to execute deep, diaphragmatic breaths throughout your exposure to override a potential shock reaction to the cold.

Appreciate the indirect benefits of cold exposure: improved focus, discipline, and stress tolerance in all areas of life. Tony Robbins, a daily practitioner of cold exposure (he has custom pools built at all seven of his luxury residences around the world), describes it as “my mind telling my body what to do; to not hesitate but to act.”

Journal

- Food: Comment about your review of foods to avoid—compliance, concerns, specific foods.
- Fasting: Write about what it felt like to take a day off.

- Fitness: Write about your extended walk.
- Mindset: Make gratitude entries in your journal as suggested above.
- Lifestyle: Note the specifics of your cold exposure—venue, duration, temperature, and a subjective evaluation of the experience.

Day 12

Food: Ancestral Foods and Superfoods—Review

Spend some time today reviewing the information in [chapter 2](#) about choosing the very best foods in each of the major categories: meat, fowl, fish, eggs, vegetables, fruits, nuts and seeds, organic high-fat dairy products, dark chocolate, beverages, alcohol, and superfoods—i.e., nose-to-tail animal products and fermented and sprouted foods. Comment in your journal about your compliance, preferences, and favorite sources for various products.

Fasting: Twenty-Four-Hour Fast

Consider fasting between an early dinner and an early dinner the next day, and make sure you have a low-stress day ahead of you. Gentle movement, such as JFW, will make the experience easier by boosting fat burning, while fight-or-flight stimulation of any kind will promote carbohydrate cravings. Remember: any effort to improve metabolic flexibility represents progress, so if you reach twenty hours and start to feel uncomfortable, it's okay to enjoy a small snack such as a high-fat beverage (kefir, raw milk, a protein smoothie) or a couple of squares of dark chocolate, then see if you can carry on for a bit more. You'll know when you really need to eat a proper meal. That said, if a ghrelin spike occurs, see if you can endure fifteen to twenty minutes of discomfort in pursuit of a fasting breakthrough.

As you gain experience with extended fasts, you will also gain confidence that you can execute them anytime. I've done a fair number of deliberate twenty-four-hour fasts for therapeutic purposes, but I've also had countless occasions when I've gone from twenty-one to twenty-four hours between meals without realizing it, whether because I'm traveling, staying busy, or having a low-appetite or low-energy-expenditure day in the office or at home.

Fitness: Recovery Workout and Evening Stroll After Dinner

Implement some of the techniques you tried on your day 9 recovery workout in an abbreviated session or another full-length session if you desire. This, too, will boost fat burning and help you sustain energy during your twenty-four-hour fast. After your break-fast or early dinner, take a leisurely stroll through the neighborhood. Remember, a fifteen-minute walk at a slow pace is enough to reduce the insulin response to the meal by half!

Mindset and Lifestyle: Detailed Journaling

Spend thirty to sixty minutes writing about all aspects of your experience during the 12-Day Turbocharge. Divide your comments into five areas, each relating to one of the daily assignments: food, fasting, fitness, mindset, and lifestyle. Dedicate the first couple of pages to data compilation, so you can easily access the information in the future: your MAF (maximum aerobic functioning) numbers and PEM (primal essential movements) assessments, your morning routine and evening ritual, and anything else you'll want to refer to.

Journal

- Food: Comment on your review of ancestral foods and superfoods—compliance, concerns, specific items.

- **Fasting:** Evaluate your twenty-four-hour fast—the degree of difficulty, its effects on energy and cognition, and your overall thoughts about the experience.
- **Fitness:** Write about your recovery workout and after-dinner stroll.
- **Mindset and lifestyle:** Carry out your journal assignments as suggested.

The Future

Congratulations on completing the Turbocharge! You may be ready for a break, but I hope you feel energized and inspired by the previous twelve days. Although it's not realistic to exist in Turbocharge mode indefinitely, the experience is intended to help you dial in a winning daily routine that feels comfortable and sustainable. Along those lines, let's recap the important objectives in each category—goals that will sustain you over the long haul. If you are able to more or less adhere to the following recommendations for the rest of your life, you dramatically improve your odds of living a long, healthy, happy life and avoiding the epidemic of diet-and-lifestyle-related disease that has become the norm today.

Food and Fasting

Ditch the Big Three: Establish zero tolerance for industrial seed oils. If a bottled, packaged, or frozen product contains them, don't buy it. If you're dining out, make the necessary inquiries so you can steer clear of them. When in doubt, assume something's made with toxic oils. If sweetened beverages, sugary treats, and refined grains work their way into your diet, make sure they are never anything more than occasional indulgences.

Establish a twelve-hour digestive circadian rhythm: There is really no reason to depart from this for more than one day, ever. Even if you are in full-fledged vacation mode with

evenings of revelry, you can pair these occasions nicely with extended fasting the next day.

Don't snack: Eat delicious, satisfying, nutrient-dense meals so you don't have the inclination to snack. Consider snacking to be an occasional indulgence or a way to replace one of your two meals.

Eat intermittently: Get into a good rhythm in which fasting is the norm, you eat when you're hungry, you finish when you're satisfied (not full), and food is always a celebration. This might be a 16-8 pattern, a morning-evening pattern, or a more fractal and intuitive pattern. As you improve metabolic flexibility, two daily meals are likely to become a maximum rather than an average.

Fitness

JFW: Make walking a centerpiece of your human experience. Orchestrate strategies and situations that obligate you to walk more, such as always parking at the outer edges of parking lots, taking stairs instead of elevators, and honoring a solemn vow as a dog owner to always give your animal the exercise it deserves, no matter what. Set up a blaring alarm inside your head that goes off after one hour of stillness. The only way to turn it off is to get up and JFW!

Implement a morning movement routine: Create a methodical sequence of movements that is energizing, easily repeatable, and indefinitely sustainable. If you can only spare five minutes, commit to making it happen every single day. Begin immediately upon awakening; include exposure to direct sunlight. Repeat the exact same moves every day, although it's okay to revise the sequence over time.

Conduct aerobic workouts: Respect the distinction between an optimal aerobic, fat-burning workout and one that's slightly too stressful and causes a spike in glucose burning. Always monitor your heart rate to stay at or below "180 minus age," except on rare occasions such as during a competition or a breakthrough workout. Strive to accumulate

between two and five hours of structured aerobic exercise each week. In addition to your JFW efforts, this will help you maintain your status as a healthy, active human.

Conduct high-intensity workouts: Conduct brief, intense strength and sprint workouts that boost antiaging hormones and dramatically improve fitness and body composition but are not exhausting or depleting. Emphasize explosiveness, excellent technique, and staying in control instead of the dated and destructive “no pain, no gain” approach. Two strength sessions lasting between ten and thirty minutes each per week, and one sprint session with only a couple of minutes of explosive effort in a total workout time of twenty minutes, is plenty.

Conduct micro workouts: Elevate your fitness baseline and help meet your daily movement requirements with brief bouts of explosive effort that deliver an awesome cumulative fitness benefit without the risk of breakdown and burnout that happens as a result of doing too many overly stressful full-length workouts with insufficient recovery between them. Micro workouts are also a great way to refresh your cognitive batteries and boost fat burning during the workday.

Workplace variation: Avoid prolonged periods of stillness by taking regular breaks for walks, doing flexibility and mobility exercises, and making time for micro workouts. Create alternative workstation options such as a stand-up desk and a low desk, and strive to vary your positioning as much as possible over the course of the workday.

Recovery: Make recovery a central element of your exercise program. Avoid exhausting workout patterns and perform high-intensity sessions only when you’re well rested and energized. Then conduct specially designed recovery workouts that trigger parasympathetic function.

Mindset

Destroy and reframe self-limiting beliefs and behaviors: Recite your turnaround statements for two to three minutes at

least once a day—ideally, twice a day—for at least the next thirty days. Each day, combine this verbal exercise with an activity from one of your step-by-step action plans.

Program your subconscious: In tandem with the aforementioned verbal and physical exercises, program your subconscious by creating a dream board, mind movie, or a visual cue, such as an index card displaying meaningful acronyms. Honor the power of these tools by keeping them in sight and revising them as needed. Consider branching out into other strategies such as playing subliminal audio recordings designed for specific life goals, engaging in guided meditation, and even hiring a life coach, spiritual guide, or other peak-performance expert.

Maintain your journal: Commit to some form of handwritten journaling in pursuit of peak performance and living in gratitude. Establish a schedule and guidelines that feel natural and easy to maintain, but keep your commitment no matter what. Again, if you only have five minutes to spare, open up your journal and write something every day to turn this behavior into a rewarding habit.

Sharpen your awareness: Pay careful attention to negative self-talk and self-limiting or self-sabotaging behavior patterns so that you catch self-sabotage every time, call it out, and replace it with a turnaround statement or empowering behavior. Notice the destructive effects of commiserating, complaining, and validating negative attitudes among your family, friends, and coworkers and resolve to never add fuel to the fire or attempt the typically losing proposition of policing others' mindsets! Instead, offer thoughtful statements that are either neutral or empowering and redirect the focus of the conversation away from negativity.

Lifestyle

Engage in sufficient rest, recovery, and downtime: Optimize your sleep environment, minimize artificial light and digital stimulation after dark, and enjoy quiet, dark, mellow

evenings with a soothing bedtime ritual. Nap when necessary and spend time in nature to lower stress.

Discipline your use of technology: Honor distinct off hours from hyperconnectivity to enjoy in-person social interactions and solo reflective time. Spend a little time every day maintaining prioritized to-do lists before you dive into reactive stimulus.

Try cold exposure: Conduct brief, therapeutic cold exposure sessions to enjoy a hormone boost, improve focus and discipline, become more resilient to all forms of life stress, and boost fat burning.

Good luck with your continued quest for health, happiness, and longevity! Your interest and enthusiasm is greatly appreciated. For support and inspiration along the way, visit TwoMealsADayBook.com, MarksDailyApple.com, or BradKearns.com.

Frequently Asked Questions

Fasting

How do I know I'm ready for fasting? I don't want to trigger the fight-or-flight response and liquidate my assets!

You must be in good general metabolic health before you consider an ambitious fasting protocol. This means you are free from inflammatory, autoimmune, thyroid, adrenal, and leaky gut conditions; have stable mood and energy levels during the day; and can delay a meal for a couple of hours without too much trouble. If you suspect you have any of the aforementioned issues, first strive to ditch the Big Three toxic modern foods and spend some time detoxing and nourishing your depleted cells with healthful foods. Follow the gradual progression presented in [chapter 6](#) and trust that the process will deliver results over the long run. Remember that progress comes in many forms and follows many time frames. Even if your fasting efforts don't go as planned, setbacks and recalibrations can deliver a net positive benefit. When you feel ready for the challenge, take the pressure off with a WHEN approach that doesn't enforce rigid timelines.

I enjoy snacking. I feel like it gives me an energy boost and a break from my stressful workday. Can I continue?

There is tremendous value in rituals that support a balance between stress and rest and provide a break from prolonged periods of stillness and sustained cognitive efforts. The comforts associated with a snack break have made it a cultural mainstay since the Industrial Revolution. But be aware that snacking can really mess up your fat-

reduction goals, because a snack of any kind will halt the burning of body fat and prompt an insulin release.

Consider replacing between-meal caloric consumption with something that delivers similar benefits, such as a micro workout, a sequence of flexibility and mobility exercises, a stroll around the block in the sunshine, or even a short nap. A movement break of any kind will improve blood circulation and oxygen delivery to the brain and body and upregulate fat metabolism. You'll get a natural boost in energy and cognition without the downsides of snacking. That said, if you are metabolically flexible and satisfied with your current body composition, an occasional nutrient-dense snack such as a handful of macadamia nuts, a few squares of dark chocolate, or a hard-boiled egg is of minimal concern. Besides, with metabolic flexibility, you will likely not have a hankering to snack in the first place!

Fat Reduction

I'm a competitive athlete who follows an ambitious training regimen that exceeds ten hours per week. However, I still carry some excess body fat. Can the Two Meals a Day approach help me?

It's extremely common among devoted fitness enthusiasts in the endurance sports, CrossFit, and group-exercise communities to carry excess body fat despite their high- or even mega-calorie-burning regimens. This can feel extremely frustrating when you devote extensive time and energy to fitness but don't see the results in your physique. Many blame bad luck with genetics when it's more accurately attributed to overly stressful training patterns and lifestyle circumstances causing chronic elevation of stress hormones. A sympathetic-dominant fight-or-flight existence dysregulates your appetite and satiety hormones, prompts compensatory mechanisms that stall fat loss, and locks you into carbohydrate dependency

—even as you burn a ton of calories and regularly deplete glycogen. Know this theorem: extreme exercise drives laziness, sugar cravings, fat storage, and elevated disease risk.

If you suffer from daily fluctuations in energy, mood, appetite, and cognitive functioning, have difficulty skipping even a single meal, habitually snack throughout the day, or require extra calories to get through a workout of sixty to ninety minutes, these are signs that you are metabolically inflexible despite your high fitness level. Not only is this keeping your spare inner tube afloat, it's also hampering your performance and health in many ways. For one, the need to consume calories before, during, and after exercise can traumatize your digestive tract. Some 30 percent of participants in the Hawaii Ironman World Championships report moderate to severe digestive distress during the competition. Second, you are burning more dirty fuel and generating more inflammation and free radicals than you would if you were burning mostly body fat instead of ingested sugar. This diet-induced oxidation and inflammation increases the stress impact of the workout and delays recovery. Keep in mind the example of fat-adapted endurance machine Dude Spellings *fasting* to facilitate recovery after his Grand Canyon double crossing (see [here](#)).

Finally, your carbohydrate-dependent diet and exercise patterns are increasing your risk of diet-related disease, including type 2 diabetes! Countless high-performing athletes have received the shocking news that they are prediabetic and hyperinsulinemic despite their devotion to training. Dr. Timothy Noakes is a notable example: his prediabetes diagnosis despite decades of ultramarathon running compelled him to rethink the foundation of his life's work—studying endurance exercise physiology within the restrictions and distortions created by the carbohydrate-dependency paradigm. Sorry for the metaphor, but your high-calorie-burning and high-calorie-

eating lifestyle essentially has you stuck on a treadmill of futility—manifested graphically in the presence of excess body fat on many a sweaty, hardworking fitness enthusiast.

Turning things around as an athlete is easy because your physical fitness can help accelerate your metabolic fitness when you change your diet. Following is a suggested plan to get the body you deserve from all your hard work.

- 1. Ditch grains, sugars, and refined industrial seed oils from your diet.** Give yourself a fighting chance at becoming metabolically flexible by getting the junk out of your diet. This includes sugary bars, gels, and beverages. If you “need” these to finish your workouts, you are doing the wrong workouts!
- 2. Eliminate even the slightest whiff of overtraining.** Maintain MAF heart rates during aerobic sessions, eliminate depleting, exhausting HIIT sessions in favor of HIRT sessions (see [here](#)), shorten the duration and reduce the frequency of high-intensity workouts, and integrate more micro workouts into your regimen.
- 3. Increase general everyday movement.** Prolonged sitting causes sugar cravings and fat storage. Movement promotes fat burning.
- 4. Prioritize sleep.** Sleep deficiencies elevate stress hormones and compromise fat burning. Adequate sleep helps stabilize appetite and satiety hormones and promotes fat burning.
- 5. Manage stress.** Hectic, fight-or-flight days promote carbohydrate dependency. Rest, recovery, relaxation, and a healthful balance between stress and rest promote fat burning.

Once you get these five objectives handled, you can consider strategic reductions of carbohydrate intake along with a WHEN strategy. Compared to starving yourself and

pushing harder in workouts, this is going to feel ridiculously easy. It's also going to bring results when you stick with it!

How can you say that increasing calorie burning and decreasing caloric intake won't lead to fat reduction? Calories in, calories out must be literally accurate, right?

Dr. Jason Fung's *The Obesity Code* cites extensive research to validate the incredibly counterintuitive concept that you won't lose fat by simply eating less and exercising more. One way to think about this is to consider how unfathomable it is to match caloric intake with caloric expenditure every single day over the long term. If calories in, calories out were literally true, with no compensating variables, your body weight should fluctuate ten or twenty pounds in either direction every year! But as I said in [chapter 1](#), we have an array of compensatory mechanisms and homeostatic drives that conspire to keep us hovering around our body-composition set point. Your set point is greatly influenced by genetics combined with lifestyle behaviors, either favorable or destructive. The vast majority of us can reflect on our appearance as teenagers to get a hint of our genetic influences toward storing fat or staying lean (unless we already screwed things up before adolescence). The steady accumulation of additional body fat over the decades beyond our youthful prime represents mainly the effects of an inflammatory, high-insulin-producing diet and, to a lesser extent, contributory lifestyle behaviors.

While it's sobering to consider the ineffectiveness of calorie restriction combined with calorie burning for fat reduction, research also reveals that study subjects who eat more and exercise less don't *add* excess body fat at the expected rate. For example, if there are 3,500 calories in a pound of fat and you were to experiment with eating 350 excess calories per day, you should predictably gain a pound of fat every ten days. Instead, the same compensatory mechanisms that prevent you from losing fat

also prevent you from gaining it. For example, excess caloric intake prompts an increase in heart rate, respiration, body temperature, and metabolic rate in general. You may find yourself more active and fidgety throughout the day after overeating.

A phenomenon known as the thermic effect of food, a.k.a. diet-induced thermogenesis, accounts for between 5 and 10 percent of calories you ingest. Using our example, if you burn 2,000 calories per day and add the extra 350 for a total of 2,350 calories, as many as 235 of those calories are burned during the process of digesting, absorbing, and storing the calories you consumed! Protein has an especially significant thermic effect: an estimated 25 percent of protein calories are allocated to their digestion. Metabolic flexibility also significantly increases the thermic effect of food. Researchers have observed two to three times the rate of diet-induced thermogenesis in lean people than in obese people.

This is not to say that long-term overeating is advisable—there are many adverse health consequences of overeating independent of its effects on body fat and metabolic rate. After all, insulin resistance essentially occurs when the body becomes worn out by overeating and incessant insulin production, thus allowing the disease patterns of metabolic syndrome to develop. The takeaway here is to realize that fat reduction is about hormone optimization (mainly, lowering insulin) rather than the calories in, calories out equation. Instead of calories in versus calories out, it would be more accurate to call it calories stored versus calories burned.

If it's not about calories in, calories out, what is the secret to shedding excess body fat?

Engage in lifestyle behaviors that signal your genes to burn fat instead of store it by lowering dietary insulin production through routine fasting and the elimination of refined carbohydrates and industrial seed oils. When you lower insulin, you become able to access and burn stored

body fat and bring it to the forefront as your preferred energy source—not ingested calories. Instead of responding to the urgent need to keep awake, focused, and energized all day via clockwork meals and frequent snacks, transition your dietary goals to the following.

- Enjoy life, with meals as a centerpiece of celebration and social connection.
- Obtain the protein you need for everyday metabolic functioning and repairing and maintaining organs and tissues.
- Obtain essential fatty acids in support of cardiovascular, reproductive, immune-system, nervous-system, hormonal, and general metabolic health.
- Obtain nutrient-dense dietary carbohydrates as desired, ranging from zero to an ancestrally inspired maximum of around 150 grams (six hundred calories) per day. This is pursuant to the first goal of enjoying life and to optimize athletic performance and recovery.

The loss of excess body fat results from honoring your authentic hunger signals with nutrient-dense foods, eating meals to the point of satiety, and allowing the magic of metabolic flexibility to create a natural, moderate caloric deficit so that you achieve a reliable reduction in excess body fat over time. This is not going to be a linear reduction because of the many compensatory variables I've discussed at length. Rather, metabolic flexibility allows you to progress to a healthy metabolic and hormonal state in which you can gracefully burn a variety of fuel sources as needed. When you commit to the *Two Meals a Day* program and bank long hours in a fasted state every day, this is naturally going to bring stored body fat to center stage.

If you are “doing everything right” for months on end and are still frustrated about your excess body fat, you can put advanced strategies into play as detailed in [chapter 7](#)

(and covered in the next question!).

Okay, I've done everything right and still can't drop the final seven pounds. I have eliminated processed carbohydrates, only eat two meals a day, and get an excellent blend of cardio and high-intensity workouts each week. What can I do in order to make further progress?

The advanced strategies covered in [chapter 7](#) really work, but only if you are highly fat-adapted. Otherwise, any concerted effort to drop fat will prompt a stress response and/or compensatory mechanisms will kick in. First, follow the general rule of thumb that your fat-loss efforts should not entail pain, suffering, or sacrifice. Rather, they require increased attention to detail, mindfulness during meals, and the application of breakthrough strategies as needed. Second, when you are hitting the most important objectives nicely, adding a few of the peripherals (sleep, parasympathetic activities) can often be the catalyst for a breakthrough. These are often overlooked because of our flawed notion that it's all about calories. Adopt a holistic, patient, confident belief that sending the right signals to your genes all day long will reliably change your body composition. If you have great indicators of fat adaptation from doing everything right, consider the following ideas to achieve a breakthrough.

- Pair morning cold exposure with fasting until 12:00 noon.
- Fast until WHEN, then wait another fifteen to sixty minutes before eating.
- Conduct a high-impact sprint workout once a week consisting of explosive, short-duration efforts with extensive rest in between.
- Conduct a low-impact sprint workout once a week: bicycle, cardio machine, water sport, or uphill sprints.

- Include micro workouts in your regimen. Remember, it's not about the calories: it's about genetic signaling. Can a few sessions a day lasting between one and five minutes each really make a big difference? Absolutely!
- Practice hara hachi bun me at all meals. Create a calm, quiet, distraction-free environment and chew each bite twenty times to facilitate this goal.
- Sleep more. Hormone optimization requires complete restoration overnight. Minimize artificial light and digital stimulation in the final two hours before bedtime so you will get sleepy on cue.
- Engage in parasympathetic activities. These calibrate you toward fat burning and away from sugar cravings and cortisol-driven appetite spikes. Add more leisurely walks, foam rolling, massage, intentional breathing, and restorative exercise—such as yoga and rebound workouts—to your daily routine.
- Experiment with increased carb intake. Leanne Vogel, author of the *The Keto Diet* and *Keto for Women*, recommends a strategic increase in carbohydrate intake designed to fine-tune insulin sensitivity, help rebalance hormones, and spur additional fat reduction after a plateau. She explains that this is particularly beneficial for females and that there are thousands of success stories that validate this as a viable technique. Start by consuming half your body weight in carb grams at your evening meal one day a week.

I'm still not completely buying the idea that it's almost all about insulin. Over the years, I've noticed that my body weight aligns very closely with my weekly training hours.

Indeed, many athletic types have challenged my assertion that body composition is 80 percent diet and 20 percent exercise, sleep, and lifestyle. There are several nuances here worth discussing. First, we must

acknowledge that you can gain or lose a significant amount of body weight in a short time through variations in diet, exercise, and natural hormonal cycles. For example, if you conduct a strenuous, hourlong, glycogen-depleting workout at a high sweat rate, it's possible to lose up to ten pounds! You can lose up to two liters of fluid per hour in sweat. Each liter weighs a kilogram (dig the metric system!), so you'd weigh 4.4 pounds less on the scale.

If you are fully glycogen-loaded and deplete yourself during the workout, this can reduce your weight by another five pounds. This is because every gram of stored glycogen binds with three to four grams of water, and we can store around five hundred grams of glycogen in the liver and muscles. You can gain most of this weight back in the ensuing hours of rehydration and eating hearty meals. On the flip side, if you go on a weeklong cruise and stuff your face without exercising, you can exceed your routine baseline weight by seven to ten pounds because of increased glycogen storage and fluid retention in cells throughout the body—plus adding a pound or two of fat.

Consequently, it's far more valuable to deemphasize body weight in favor of tracking body-fat percentage. While technology is improving, making body fat easier to track without expensive testing, it's more convenient and likely more motivating to use subjective tools such as a tight-fitting pair of pants or a daily (or weekly) LGN checkup in front of a mirror. If you have veins and a specific amount of muscle definition visible through the abdomen when you are at your best, you can snap a photo and establish some visual benchmarks. While we have heard plenty of admonitions against worshipping the bathroom scale, or even owning a scale, Dr. Ronesh Sinha makes an excellent counterpoint. He says that checking the scale daily helps him track his rate of glycogen replenishment: when he hits the high end of his typical five-pound body-weight range, he knows it's time for more exercise and less indulgence. If he weighs in at the low

range, he can help reduce overtraining risk by backing off from depleting workouts and restocking with nutrient-dense carbohydrates.

If you are enamored of the low scale numbers that appear when you are in heavy training, reflect on the commentary about liquidating your assets, because this is likely a prominent contributor to your number. If you want to look defined instead of emaciated, and feel vibrant and energetic at rest instead of sluggish and skinny from too much training, adjust your exercise energy expenditure to a manageable level and make a point of consuming ample amounts of nutritious foods of all kinds. Surprising as it may seem, reducing training volume and increasing your intake of nutritious calories can often promote a reduction in excess body fat, because your body becomes a less stressed, less inflamed, better fat-burning machine at rest. This is particularly the case when you're trying to burn off inflammatory belly fat, which accumulates as a result of overly stressful lifestyle behaviors of all kinds.

So does working out make any kind of contribution to my body-composition goals?

Yes indeed! Your workout regimen can benefit your body composition by increasing fat metabolism at rest, stabilizing your energy, mood, and appetite during the day, and inspiring you to choose healthful foods and consume fewer total calories because you feel healthy, vibrant, and energetic. By contrast, insufficient daily movement or a drastic reduction in your workout routine can easily cause you to gain excess body fat because inactivity can promote insulin resistance, carbohydrate cravings, and less discipline with food choices and portion sizes. Also, if you are able to neutralize these factors, you should easily be able to maintain an ideal body composition independent of fluctuations in the amount you exercise. For example, my body-fat percentage is around the same as it was when I was an elite marathon runner and Ironman triathlete decades ago. Today, I eat far fewer calories, burn far fewer

calories, and produce far less insulin than I did as an endurance machine, and I am vastly healthier in many respects.

What is the best way to lose excess body fat without causing compensation-theory rebounds?

To avoid triggering fight-or-flight or compensation-theory mechanisms that will arrest fat loss, consider one of the following two strategies to get the job done. First, you can achieve a mild average caloric deficit each day that's not stressful or difficult to adhere to and that you barely notice. Top trainers in weight-dependent combat sports recommend a maximum daily deficit of three hundred calories. This under-the-radar strategy guards against triggering compensatory reductions in calorie burning, especially if you throw in days when you eat in caloric balance. Granted, it's difficult if not impossible to accurately achieve a mild caloric deficit, but if you are just mindful to back off a bit in the spirit of hara hachi bun me, this strategy can be very effective.

Another option is a short-term, hard-core approach in which you aggressively restrict caloric intake, override appetite spikes, and get the fat off quickly. This strategy is obviously unsustainable both from a willpower perspective and from a compensation-theory perspective, because counterbalancing forces eventually kick in. However, the short-duration approach can be appealing to certain personality types who don't have the patience or the precision to try for a sustained three-hundred-calorie daily deficit. Increased frequency of cold water therapy and sprint workouts can be very helpful during these aggressive fat-reduction efforts.

The total energy expenditure (TEE) theory doesn't make sense. I'm way more active than my neighbor and must burn way more daily calories!

Superfit folks experience an assortment of metabolic efficiencies that make their daily caloric expenditure only

marginally higher than that of sedentary folks. After his revelatory study of the Hadza in Tanzania, Dr. Herman Pontzer conducted a study among hundreds of modern citizens revealing that moderately active folks burn only around two hundred more calories per day than inactive folks. Increasing exercise beyond moderate levels did not increase calorie burning, disproving the common belief that a devoted exercise regimen creates a “metabolic advantage.” What’s more, if your caloric expenditure is unusually high for a day or a week, all manner of powerful compensatory mechanisms kick in to keep you calibrated at a metabolic set point. This is represented in the illustration [here](#), showing the parity between Saturday (a one-hundred-mile bike ride paired with laziness and extra food) and Sunday (increased general movement and a sensible caloric intake). If you are still shaking your head, consider that an hour of vigorous exercise burns around 650 calories. If you average out that caloric expenditure over the other twenty-three hours of the day, your burn rate increases by only twenty-seven calories per hour. This doesn’t put you much ahead of your inactive neighbor, who will reliably close that gap by burning more calories than you do while grocery shopping or climbing a flight of stairs.

Macronutrients

You say don’t worry about counting calories, tracking macronutrient ratios, or measuring ketones, but I feel like quantification has helped me succeed in the past.

Tracking can be especially valuable in the early stages of transforming your diet or exercise program, because it will help increase your knowledge base in support of adhering to your stated goals and eventually transitioning to an intuitive approach. Over the long term, though, following a rigid program can demand too much brainpower and willpower. It can feel like an increasing

logistical hassle and entail too much suffering and sacrifice. These bring a high risk of burnout and backsliding into old habits.

I want to empower you to take responsibility for your health and implement an intuitive approach to eating, exercise, and living an awesome life. The power of knowledge, self-awareness, and tangible results from your healthful lifestyle habits will keep you on track without having to sweat the small stuff or painstakingly record every bite of food you eat or mile you run. That said, certain personalities seem to respond better to quantification, because it can provide valuable accountability and a sense of security. If you insist that you do better when tracking data, by all means go ahead. Just try to maintain a healthy perspective so that your tracking is, for the most part, a recording of past behaviors that were informed by intuition and common sense. This is better than being a slave to rigid standards that you track. This approach can often provoke obsessions, insecurities, and other negative energy that leads you to make poor decisions.

I'm confused about the role of carbohydrate intake in fat loss and peak performance. The keto philosophy is to strictly limit carbs, but other experts suggest that carbs are important, especially for females.

Indeed, the diet wars have become increasingly annoying and confusing to the average person, who can't spend all day reviewing the research. The starting point for this conversation is the assertion that there is never any justification for consuming nutrient-deficient refined carbohydrates. Even if you are a high-performing athlete with low body fat, refined carbs promote oxidation and inflammation, which will suppress immune functioning and delay recovery.

Optimizing carb intake depends on numerous personal variables, including your genetics, fitness goals, and stress levels. Perhaps the most significant variable is your body

composition and whether you aspire to reduce excess body fat. If you are trying to drop fat, the most reliable path is to lower insulin production through fasting and restriction of carbs and industrial oils. This may include temporarily limiting your intake of fruit, sweet potatoes, and starchy tubers as well as nuts, seeds, dark chocolate, and high-fat dairy products. Once you have attained your ideal body composition, you can try to reintroduce nutritious carbs and see how you tolerate them. You may notice some beneficial effects, such as improved mood and faster recovery from workouts. If you notice any adverse effects, such as fatigue after meals or an increase in body fat, you can dial things back in search of your ideal pattern. Perhaps the best recommendation is to stay in close touch with your natural appetite signals and notice when you crave carbs as well as when your carb intake has had adverse effects. The brain is very good at directing you to consume the precise nutrients you need at all times, unless you abuse your delicate appetite and satiety mechanisms by overeating.

I'm a hard-training athlete, and I'm worried that fasting and cutting carbs will affect my performance.

The world of fat-adapted athletic training is proving that amazing achievements are possible without stuffing carbs down your face before, during, and after workouts. Dr. Jeff Volek's highly regarded FASTER study (fat adapted substrate use in trained elite runners) revealed that highly trained endurance runners can burn vastly more fat calories per minute than was previously believed to be humanly possible and that glycogen replenishment can occur after depleting workouts even when little or no carbohydrates are eaten! Replenishment happens through the internal processes such as gluconeogenesis (converting ingested protein into glucose for immediate energy, mainly for the brain) and separating the glycerol molecules from triglycerides and sending them to the liver to be converted into glycogen.

Becoming a fat-adapted athlete requires devoted dietary transformation as well as a sensible training program with sufficient aerobic (fat-burning) cardio workouts and brief, high-intensity sessions that aren't overly stressful and depleting. If you have a high-carb, high-insulin-producing diet, extreme exercise habits, and/or an overly stressful lifestyle, you have a high probability of crashing and burning if you abruptly ditch carbs and try to maintain your high-stress ways. The best approach is to tackle dietary transformation first, perhaps in conjunction with a temporary reduction in both training hours and intensity. A correct approach to diet modification and training should unlock incredible performance benefits, including reduction in body fat, better control of inflammation, and faster recovery time. As you proceed on the path to becoming a fully fat-adapted athlete, consider the commentary from Dr. Tommy Wood in [chapter 2](#) about eating enough nutritious foods to fuel your performance and recovery needs. In particular, pay attention to your natural appetite signals and honor any authentic cravings for carbohydrates that might occur in the aftermath of strenuous workouts.

Is keto an all-or-nothing proposition in which there exists a no-man's-land for carbohydrate intake?

If you are fully committed to ketogenic eating, you can enter into an alternative metabolic paradigm wherein your muscles burn fatty acids at a high rate and preserve glycogen efficiently, and your brain burns mostly ketones and minimal glucose. If your approach is flawed, you can indeed exist in a no-man's-land where your carbohydrate intake is insufficient to supply your energy needs but your fat- and ketone-burning skills are not sufficient to pick up the slack.

This phenomenon is of particular concern to athletes with high calorie-burning requirements. Dr. Stephen Phinney and Dr. Jeff Volek, authors of *The Art and Science of Low Carbohydrate Performance*, have published

research revealing that an undesirable “tug-of-war” effect can happen in the early stages of becoming fat- and keto-adapted. This occurs when the muscles don’t have enough of their usual supply of glucose (but don’t yet burn fatty acids efficiently), so your workout performance suffers. Meanwhile, your brain doesn’t have enough glucose, but it’s not getting any ketones, either. The double whammy of the afternoon blues and lousy workouts is no fun. To stay out of no-man’s-land, consider toning down your workout energy expenditure for the first three weeks of your transition away from high-carbohydrate eating patterns. Focusing on low-intensity aerobic activity and keeping any high-intensity stuff really brief (e.g., micro workouts) will ensure that your brain gets the glucose it needs. Meanwhile, for your diet, engage in fasting and carb restriction with enough discipline to trigger ketone production.

Is low carb just for endurance athletes, or can strength and power athletes benefit, too?

Athletes in the strength and power realm have not embraced low carb or keto as enthusiastically as endurance athletes, likely because of the significant glycolytic demands of high-intensity workouts and the perceived need for more dietary carbohydrates. However, research and anecdotal evidence reveals that a fat-adapted approach can be effective for high-intensity exercise as well. KetoGains.com kingpin Luis Villasenor has been in strict ketosis for nearly two decades while performing at a high level in bodybuilding and power lifting and maintaining an extremely lean, muscular physique. He has helped many strength and power athletes succeed without having to resort to the flawed and dated strategy of stuffing down maximum carbs and protein all day long. Early keto diet promoter Danny Vega (host of the Fat Fueled Family podcast with his wife Maura) has been performing magnificent feats of strength, sporting an eye-popping physique, and guiding enthusiasts of all levels to drop

excess body fat safely with a keto approach.

Succeeding as a low-carb strength and power athlete entails first getting good at burning fat at rest. This will reduce your glucose needs during the walk from the parking lot to the gym, during your fifteen minutes of warm-up exercises, and even in the middle of explosive efforts. With a fat-burning, carbohydrate-sparing baseline, you will have plenty of glucose available for even the toughest workouts. Second, workouts must be brief, featuring explosive efforts with plenty of rest between them. Avoiding the prolonged, exhausting, depleting sessions that are so common in weight rooms and group exercise classes will also reduce your desperate need to refuel with carbs during and immediately after workouts. Third, taking sufficient recovery time between tough high-intensity sessions will ensure that you refuel with glycogen (even on a low- or very-low-carb diet) before you attempt another grueling session. Fourth, make your dietary transition as comfortable as possible by toning down your workout routine for at least the first three weeks of restricting dietary carbohydrates. Finally, be mindful of boosting sodium and electrolyte intake so you don't become depleted by the combination of a new diet along with sweating during tough workouts.

I've heard various recommendations about protein consumption. What does the Two Meals a Day program suggest?

In brief, don't worry too much about protein, because your natural appetite and homeostatic mechanisms do a great job naturally optimizing your protein consumption. Most experts recommend consuming an average of 0.7 grams of protein per pound of lean body mass (1.54 grams per kilo) per day. This is easy to achieve automatically with just about any diet, with the exception of an extremely restrictive plan such as a vegan or a deliberately low-protein diet. Because protein is the most urgent dietary requirement for survival, we have powerful mechanisms

that cause us to crave high-protein foods if we get into a pattern of underconsumption. Dietary protein deficiency will cause you to catabolize lean muscle mass and throw off an assortment of critical repair and renewal functions. This promotes extreme fatigue, makes you look emaciated and unhealthy, and drives strong cravings for high-protein foods.

While it's unsustainable to exist in a state of chronic protein deficiency, you can still get into trouble by trending on the low side of your basic requirements. This may cause transient muscle catabolization that's hard to notice (or, worse, you might grow fond of your low scale number and skinny appearance), a slight decline in peak performance capabilities, and slower recovery from workouts. You might have days or weeks when you feel terrible, then okay for a bit, then terrible again. If you insist on following a restrictive diet (including ignoring cravings for protein-rich foods that aren't on your "list"), you can experience a long, slow candle burn over months or years to the extent that a deficient state becomes your new normal.

Many experts recommend that hard-training athletes consume an average of around one gram of protein per pound of total body weight (2.2 grams per kilo). A higher intake is also commonly recommended for the elderly, because they don't synthesize protein as efficiently and because they want to guard against the huge mortality risk factor of sarcopenia (loss of muscle mass). On average, carnivore diet proponents, like Dr. Shawn Baker and William Shewfelt routinely consume significantly more than one gram of protein per pound of body weight daily, asserting that 1.2 grams per pound is safe and effective. Mainstream authorities have long argued that increased protein intake can be stressful for the liver and kidneys charged with excreting the excess and that it can cause an overstimulation of growth factors in the bloodstream, such as mTOR and IGF-1. This chronic overstimulation can

lead to accelerated, unregulated cell division and increased cancer risk. Again, these warnings may be most relevant in extreme cases, such as those of bodybuilders who consume triple their body weight in grams of protein per day.

There has been a recent trend (which I support) of backing off from the dire warnings about excess protein with the acknowledgment that if you are healthy and active, you probably don't have to worry much about consuming excess protein. For one, protein's extremely high satiety factor will naturally regulate your intake of high-protein foods. Also, if your carbohydrate intake is low, extra protein can be used to help restock glycogen via gluconeogenesis. I've discussed gluconeogenesis as a negative thing—when you strip down lean muscle mass to make sugar for your ravenous brain—but gluconeogenesis that uses ingested protein is a highly efficient way to restock glycogen. Gluconeogenesis is believed to be a demand-driven process, meaning that you make only the exact amount of glucose you need to perform at your best and recover efficiently.

Note that daily protein targets are expressed as an average, because your body has assorted protein-sparing and protein-shedding mechanisms to help balance temporary dietary fluctuations. For example, the lauded fasting benefit of autophagy involves repairing and recycling amino acids. If you aren't getting any protein at mealtime, your body makes do very nicely working with what's available. If you consume more protein than your body needs now and then, you will reduce hunger, trigger a temporary increase in metabolic rate as you repair and/or build lean muscle mass (per the aforementioned thermic effect of protein—burning as much as 25 percent of its own calories), and perhaps engage gluconeogenesis if necessary—all helping to promote long-term homeostasis.

I love bread, seem to suffer no ill effects from it, and am willing to allocate a portion of my daily carbohydrate budget to some premium-quality bread. Is this okay?

If you choose to indulge in favorite foods that are off the ancestral template, be sure to carefully select the highest-quality and least detrimental foods in that category. Enjoy the experience to the fullest and treat it as a rare and celebratory event. There is a huge difference between that and mindlessly allowing nutrient-deficient foods to remain in your diet just because of your ingrained habits and/or because they provide a few moments of gustatory pleasure—this will often result in hours of not feeling great after indulging.

Rapid-Fire Round

I'm a fit female who wants to drop a few more pounds. How can I tell if I'm doing it safely?

Carefully monitor yourself for fatigue and/or sugar cravings at the end of workouts and at rest. Notice if you have reduced motivation to exercise, fluctuations in mood, energy levels, and cognitive function during the day, and sleep disturbances at night. These are all signs that the combination of carbohydrate restriction, calorie restriction, and ambitious workouts are becoming too stressful and therefore counterproductive.

How can I tell if I'm overfat?

Dr. Phil Maffetone recommends that your waist measurement be half your height in inches or less. Anything outside this range he deems overfat. He also asserts that 91 percent of the global population falls into this category. Dr. Ronesh Sinha looks for the male waist-to-hip ratio of .95 or below. For females, Dr. Sinha wants a waist of less than thirty-five inches, with a waist-to-hip ratio of .85 or below. For example, waist measurement in inches should be slightly or significantly less than hip measurement in inches—e.g., a thirty-two-inch waist to thirty-six-inch hips is a .88 ratio.

How can I tell if my high-intensity workouts are too

stressful?

Watch for these symptoms and take immediate corrective action if you experience them:

- routine muscle soreness after workouts;
- fatigue and negative attitude immediately after workouts;
- mood swings, sugar cravings, and afternoon blues anywhere from twelve to forty-eight hours after workouts;
- frequent muscle burn during workouts;
- compromised form during resistance efforts or sprints in the latter stages of workouts;
- feelings of apprehension before workouts.

Never perform a breakthrough session unless you are 100 percent rested and motivated beforehand. Take luxurious rest intervals that allow you to feel completely refreshed and energized to perform the next work effort at the same quality standard. Typically, this entails a rest interval five times longer than the sprint effort (e.g., sprint twelve seconds, rest for a minute). End the workout before (or right when) your form breaks or your energy or performance standard drops off noticeably.

How can I tell if I'm sodium-depleted?

Watch for these symptoms and take immediate corrective action if you notice them:

- dizziness upon standing;
- excessive thirst;
- muscle spasms or cramps;
- restlessness, irritability, and fatigue during the day;
- afternoon blues or sugar cravings.

If you are making an abrupt transition from carb dependency to ancestral-style eating, add between five and ten grams (depending on your activity level) of high-quality mineral salt or ancient sea salt to your beverages each day. If you suspect you are sodium-deficient, add more until the thought or sight of salt seems distasteful or until you feel fully hydrated and are voiding clear urine frequently throughout the day.

I experienced years of metabolic damage from carb dependency and yo-yo dieting. How long will it take me to become a fat-burning beast?

After three weeks of total elimination of the Big Three toxic modern foods, you should experience massive improvements in your ability to regulate energy, mood, and appetite during the day. If your metabolic damage is severe, it may take between six and twelve months to fully optimize fat-burning genetic mechanisms and be completely free of carbohydrate dependency. It is only then that you should attempt strategic reduction of excess body fat via extended fasting and further carbohydrate restriction.

I thought insulin was important for building and maintaining muscle mass, recovering from workouts, balancing hormones, and other health functions.

Indeed, insulin is an important anabolic/anticatabolic hormone responsible for delivering glucose and amino acids to cells throughout the body. The concern and caution about insulin result from the fact that hyperinsulinemia (harmful chronic overproduction of insulin) is so prevalent. The big-picture health goal is to produce an optimally minimal amount of insulin—enough to get the job done without disturbing homeostasis.

How do I know whether my insulin production is okay or excessive?

If you carry excess body fat (per the Dr. Maffetone and Dr. Sinha calculations; see [here](#))—especially visceral fat,

around the midsection—it's likely that you have been chronically overproducing insulin. If you obtain a fasting insulin blood test, strive to get under 8.0 urgently. A count of under 3.0 is excellent. Because insulin offers many health, performance, and recovery benefits, it may be best to adopt a feast-or-famine eating strategy, wherein you eat nutritious meals, produce sufficient insulin to promote homeostasis, and concurrently strive to bank long hours in a fasted state between your nutrient-dense meals.

How can fruit be worse than other carbs when it has so many nutritional benefits?

Although fruit is highly lipogenic (that is, it has a high propensity to be converted into fat), the negative effects of fruit consumption happen largely when too many other forms of carbohydrates are consumed in concert with fruit. If your glycogen tanks are full, fruit is easily converted to fat. If your carb intake is sensible, fruit consumption has many advantages over other carbs. Consuming whole fresh fruit gives you fiber, water, and micronutrients that contribute to satiety in a way that processed carbohydrates do not. Furthermore, concerns about the autoimmune and inflammatory effects of plant antigens in grains, legumes, nuts, seeds, and vegetables are greatly minimized with fruit.

How can I tell if I'm liquidating my assets?

Be on the lookout for these symptoms and take immediate corrective action if you notice them:

- sugar cravings immediately after high-intensity workouts;
- delayed fatigue twenty-four to seventy-two hours after high-intensity workouts;
- overeating at your break-fast meal after an aggressive fasting effort;

- hectic weekdays paired with weekends of exhaustion and burnout;
- periods of excess energy during hectic days—feeling fidgety, hurried, distractible, and not very hungry;
- an excess of fight-or-flight stimulation (hectic workday, high-intensity workouts, high-shock-value entertainment) as well as insufficient parasympathetic stimulation (foam rolling, yoga, meditation, walking, nature immersion).

Most of us in modern life are at constant risk of becoming overstressed and liquidating our assets, leading to eventual burnout. It's critical to make devoted efforts to conduct morning and evening rituals, schedule downtime from technology, take regular movement breaks, and draw a series of deep, diaphragmatic breaths whenever you become overstimulated and frazzled.

Two Meals a Day Recipes

Brad's "NOatmeal"

4 servings

Prep time: 5 minutes

Cooking time: 7 minutes

Made with healthful fats and protein and just enough natural sweetness, this oatmeal is easy to make and incredibly rich and satisfying. Vary the amount of nut butter according to your preferred consistency. Double or triple the recipe to have a ready-made supply for busy mornings.

1 cup unsweetened coconut or almond milk

4 large egg yolks

2 teaspoons pure vanilla extract

2 teaspoons cinnamon

½ cup pureed nuts of your choice

3 tablespoons nut butter, such as Brad's Macadamia Masterpiece (available at Bradventures.com), or more or less to taste

In a large saucepan, combine milk, egg yolks, vanilla, and cinnamon and mix well. Simmer on low heat for about five minutes, stirring occasionally. When the mixture is warm and well blended, add nuts and nut butter and stir a couple more minutes until the desired consistency is reached. Keep in mind that the mixture will thicken significantly after being removed from the heat, so err on the watery side when you pull the pan off the stove.

Macronutrient Information

Total calories: 331

Fat: 23 grams / 207 calories

Carbs: 20 grams / 80 calories

Protein: 11 grams / 44 calories

Breakfast Hash and Broiled Eggs

2 servings

Prep time: 10 minutes

Cooking time: 15–18 minutes

Hashes are often prepared with shredded potatoes, but why not experiment and use brussels sprouts? If you can't find brussels sprouts, a big bag of preshredded cabbage is a nice low-carb alternative.

- 1 pound bulk pork sausage
- 2 tablespoons butter
- 4 ounces fresh mushrooms, diced
- 1 small shallot, minced
- 2 cups quartered brussels sprouts
- 4 garlic cloves, minced
- Salt and pepper to taste
- 4 large pastured eggs
- 2 ounces crumbled goat cheese

Preheat the broiler to its highest setting.

In a large ovenproof skillet, cook the sausage over medium heat, breaking it up into bite-size pieces, until cooked through. Using a slotted spoon, remove the meat from the pan and set aside.

To the fat remaining in the skillet, add butter and mushrooms and cook on medium-high heat until golden brown. Add the shallot, brussels sprouts, and garlic. Sauté until the brussels sprouts are tender and the shallot is translucent, about 5 minutes. Season with salt and pepper. Transfer the cooked sausage back into the skillet and toss to

combine. Taste and adjust seasoning.

Make four wells in the sausage mixture. Crack an egg into each well, season with salt and pepper, and place the pan on the middle rack of the oven. Broil for 3–5 minutes, depending on how runny you like the yolks. Top with crumbled cheese and serve immediately.

Macronutrient Information

Total calories: 2,408

Fat: 180 grams / 1,620 calories

Carbs: 63 grams / 252 calories

Protein: 134 grams / 536 calories

Hearty Farmer's Market Breakfast Casserole

4 servings

Prep time: 12 minutes

Cooking time: 30 minutes

Filled with vegetables, herbs, and lots of protein, this dish will keep you full and grounded all morning. You'll love it so much that you'll be tempted to eat it for dinner!

1 pound bulk pork sausage

1 red or green bell pepper, seeded and diced

1 medium zucchini, diced

1 medium onion, diced

4 garlic cloves, minced

8 large pastured eggs

1 cup shredded Cheddar cheese, divided

¼ cup chopped fresh basil

¼ cup minced fresh parsley

2 teaspoons salt

½ teaspoon pepper

½ cup heavy cream or unsweetened coconut cream

2 scallions, thinly sliced

Preheat oven to 375°F.

In a large pan over medium heat, brown the sausage, breaking it up into bite-size pieces. Increase the heat to medium-high and add the bell pepper, zucchini, onion, and garlic and sauté for 5 minutes.

Meanwhile, in a large bowl, whisk together the eggs, ½ cup cheese, basil, parsley, salt, pepper, and cream. Transfer the

cooked sausage mixture to a 9-inch pie pan. Pour the egg mixture over the top and sprinkle with scallions and remaining cheese. Bake for 25 minutes, or until golden brown and just set.

Macronutrient Information

Total calories: 765

Fat: 61 grams / 549 calories

Carbs: 13 grams / 52 calories

Protein: 41 grams / 164 calories

Chaffle Avocado Toast

2 servings

Prep time: 10 minutes

Cooking time: 15 minutes

Who says you have to fill your waffle iron with nutrient-deficient grains and sweeteners? Haul that thing back out of the dark cupboard corner and try the increasingly popular “chaffle”—a cheese waffle! This deliciously crispy concoction is topped with healthful fats, vegetables, and protein.

2 large pastured eggs

1 cup shredded cheese, such as Cheddar or a mixture of half Parmesan and half mozzarella

½ teaspoon pepper

1 scallion, thinly sliced

4 slices uncured bacon

1 avocado

¼ teaspoon salt

¼ teaspoon garlic powder

4-inch section cucumber, peeled and thinly sliced

2 lemon wedges

Pinch of red pepper flakes

In a medium bowl, combine the eggs with the shredded cheese, pepper, and scallion. Pour the batter into a waffle maker and cook according to the manufacturer’s directions—in two batches if necessary (see note below)—until golden brown. Transfer to a wire rack.

Meanwhile, in a large skillet over medium heat, cook the bacon, chop it, then set aside. In a small bowl, mash the

avocado flesh with salt and garlic powder.

To assemble, layer cucumber slices on top of the chaffles, followed by the avocado mixture, chopped bacon, a squeeze of fresh lemon juice, and a pinch of red pepper flakes.

Make a double or triple batch of chaffles, then store them in the freezer. When you're ready to eat, simply pop them in the toaster.

Macronutrient Information

Total calories: 520

Fat: 40 grams / 360 calories

Carbs: 14 grams / 56 calories

Protein: 26 grams / 104 calories

Creamy Chicken Tortilla Soup

4 servings

Prep time: 15 minutes

Cooking time: 25 minutes

You won't miss tortilla chips when you experience this incredibly intense and diverse blend of flavors and toppings.

2 tablespoons lard or beef tallow

1 medium onion, diced

8 boneless, skinless chicken thighs, cut into 1-inch cubes

2 tablespoons tomato paste

4 ounces canned diced green chilies

2 tablespoons cumin

1 tablespoon coriander

1 tablespoon dried oregano

1 tablespoon chili powder

1 teaspoon smoked paprika

2 teaspoons salt

1 teaspoon pepper

8 garlic cloves, minced

2 medium zucchini, quartered lengthwise and sliced

2 carrots, halved and sliced lengthwise

1 small head green, white, or red cabbage, chopped

4 cups chicken bone broth

1 cup chopped fresh cilantro leaves

½ cup thinly sliced scallions

1 cup full-fat sour cream

Sliced fresh jalapeño peppers, sliced black olives,
shredded cheese, diced onion, and sliced
avocado for topping

In a large soup pot over medium-high heat, melt the lard. Add the onion and sauté until translucent, about 3 minutes. Add the diced chicken thighs, tomato paste, green chilies, cumin, coriander, oregano, chili powder, smoked paprika, salt, and pepper. Stir to combine and sauté until the chicken is almost cooked through, about 10 minutes.

Add the garlic, zucchini, carrots, cabbage, and bone broth. Bring to a boil, then reduce to a simmer. Simmer for 10 minutes, or until the vegetables are crisp-tender.

Stir in the cilantro, scallions, and sour cream. Taste and adjust seasoning. Serve with the toppings on the side.

Macronutrient Information

Total calories: 623

Fat: 31 grams / 279 calories

Carbs: 34 grams / 136 calories

Protein: 52 grams / 208 calories

Tuscan Sausage Soup

4 servings

Prep time: 10 minutes

Cooking time: 25 minutes

The combination of fatty Italian sausage, sun-dried tomatoes, and dry Parmesan cheese in this hearty one-pot recipe is going to blow you away. Let this one bubble for a while in your kitchen, so the delicious aroma drifts through your home as you cultivate gratitude for the opportunity to eat such delicious food.

2 pounds spicy bulk Italian sausage

2 tablespoons extra-virgin olive oil

1 large onion, diced

6 garlic cloves, minced

2 medium zucchini, diced

½ cup sun-dried tomatoes packed in olive oil, drained and minced

¼ cup chopped fresh basil

½ cup chopped fresh parsley

1 teaspoon dried oregano

1 teaspoon salt

½ teaspoon pepper

6 cups chicken bone broth

4 cups fresh spinach leaves

¼ cup grated Parmesan cheese

In a large soup pot over medium heat, cook the sausage, breaking it into bite-size pieces. Just before it's cooked

through, transfer to a bowl using a slotted spoon, reserving the fat in the pot.

Increase the heat to medium-high, add the olive oil and onion, and cook until translucent, about 3 minutes. Add the garlic, zucchini, sun-dried tomatoes, basil, parsley, dried oregano, salt, and pepper. Toss to coat and cook for an additional 5 minutes.

Transfer the sausage back into the pot and cover with the broth. Bring to a boil, then reduce heat to a simmer. Add the spinach and stir just to wilt. Remove from the heat, add the grated Parmesan, and serve hot.

Macronutrient Information

Total calories: 613

Fat: 45 grams / 405 calories

Carbs: 18 grams / 72 calories

Protein: 34 grams / 136 calories

Sisson Bigass Salad

2 servings

Prep time: 10 minutes

This is just one of many variations of my centerpiece midday or evening meal. Experiment with steak, chicken, turkey, and other meats in place of the tuna, and an assortment of colorful vegetables and/or dressings.

3–4 cups shredded lettuce or mixed greens

1–2 cups sliced fresh vegetables, such as fresh mushrooms, bell peppers, carrots, beets, and tomatoes

¼ cup shredded Cheddar cheese (optional)

15-ounce can sustainably harvested tuna packed in water, drained

¼ cup nuts, such as walnuts, pecans, or almonds

2 tablespoons sunflower or pumpkin seeds

2 tablespoons avocado oil–based salad dressing, such as Primal Kitchen Balsamic Vinaigrette and Marinade or Primal Kitchen Green Goddess

In a large shallow bowl, or a resealable storage container, layer the lettuce, vegetables, and cheese (if desired), in that order. Flake the tuna over the top. The salad can be stored or transported at this point.

When you're ready to eat, sprinkle the nuts and seeds over the top and drizzle with the dressing.

Macronutrient Information

Total calories: 879

Fat: 63 grams / 567 calories

Carbs: 24 grams / 96 calories

Protein: 54 grams / 216 calories

Caribbean Taco Salad

2 servings

Prep time: 10 minutes

Cooking time: 10 minutes

If you've never tried combining chili powder and cinnamon, this salad is going to make you an instant convert—ground turkey will never taste better! Put on some reggae music and drift off on your own island fantasy.

2 tablespoons butter

1 20-ounce package ground turkey

1 teaspoon salt

½ teaspoon pepper

1 tablespoon cumin

1 teaspoon dried oregano

1 teaspoon chili powder

½ teaspoon paprika

½ teaspoon onion powder

¼ teaspoon cayenne pepper

¼ teaspoon cinnamon

4 garlic cloves, minced

½ teaspoon grated fresh ginger

1 green or red bell pepper, seeded and diced

Zest of 1 lime

Juice of 2 limes

¼ cup extra-virgin olive oil

2 cups thinly sliced green cabbage

2 cups baby spinach leaves

¼ cup thinly sliced scallions

½ cup chopped fresh cilantro leaves

In a large skillet over medium-high heat, melt the butter. Add the turkey, salt, pepper, cumin, oregano, chili powder, paprika, onion powder, cayenne, and cinnamon. Cook, breaking up into small bits, until the meat is cooked through.

Add the garlic, ginger, and bell pepper and cook until fragrant, about 1 minute. Add the lime zest and juice, and olive oil. Toss to combine.

In a medium bowl, combine the cabbage and spinach. Top with the meat mixture, scallions, and cilantro.

Macronutrient Information

Total calories: 1,193

Fat: 89 grams / 801 calories

Carbs: 22 grams / 88 calories

Protein: 76 grams / 304 calories

Curried Chicken Salad

2 servings

Prep time: 5 minutes

Cooking time: 15 minutes

Bibb lettuce is the best nest for this tasty meal, but crunchy cabbage will work, as will a bed of mixed greens. The chopped nuts help jazz up the texture and increase satiety.

8 boneless, skinless chicken thighs, cut into 1-inch cubes

Salt and pepper to taste

1 green bell pepper, seeded and diced

2 stalks celery, diced

2 scallions, thinly sliced

½ cup chopped nuts, such as macadamia or pecans

2 large romaine or Bibb lettuce leaves

For the dressing

1 cup avocado oil-based mayonnaise, such as Primal Kitchen Mayo

Zest of 1 lemon

Juice of ½ lemon

1 tablespoon curry powder

½ teaspoon garlic powder

½ teaspoon salt

½ teaspoon pepper

Preheat the oven to 425°F. Line a baking sheet with parchment paper.

Arrange the chicken pieces on the prepared pan and season with salt and pepper. Bake for 15 minutes, until the internal temperature reaches 160°F. Remove from oven and allow to cool for 5 minutes.

While the chicken bakes, make the dressing: whisk together the mayonnaise, lemon zest and juice, curry powder, garlic powder, salt, and pepper in a medium bowl. Add the bell pepper, celery, scallions, and chopped nuts. Add the cooled chicken, toss to coat, and adjust seasoning.

Place a lettuce leaf on each of two serving plates, top with salad, and serve.

Macronutrient Information

Total calories: 1,118

Fat: 85 grams / 765 calories

Carbs: 14 grams / 56 calories

Protein: 82 grams / 328 calories

Tuna Salad with Cucumber “Chips”

2 servings

Prep time: 5 minutes

Keep canned tuna in your pantry to use as a quick and versatile meal base. Look for label designations such as “line caught” or “pole caught” to avoid problems associated with industrialized tuna operations. Combined with mayonnaise and avocado, this salad is amazing served with your favorite low-carb crudités, such as the cucumber suggested here or radish, jicama, and bell pepper.

12 ounces sustainably harvested canned tuna
packed in water, drained

4 stalks celery, diced small

2 scallions, thinly sliced

Zest and juice of 1 small lemon

½ avocado, mashed

½ cup avocado oil–based mayonnaise, such as
Primal Kitchen Mayo

1 teaspoon everything bagel seasoning

½ teaspoon pepper

1 English cucumber, sliced on the diagonal

Combine the tuna, celery, scallions, lemon zest and juice, avocado, mayonnaise, bagel seasoning, and pepper in a medium bowl. Serve sliced cucumber on the side.

Macronutrient Information

Total calories: 735

Fat: 59 grams / 531 calories

Carbs: 9 grams / 36 calories

Protein: 42 grams / 168 calories

Taco Salad

2 servings

Prep time: 15 minutes

Cooking time: 10 minutes

Who needs a tortilla when you can enjoy the varied and intense flavors and textures in this ultrasophisticated spin on a popular staple? Again, nothing you'll find in a restaurant will ever compare to this, so make a huge batch of it and enjoy it all week.

- 1½ pounds ground beef
- 4 garlic cloves, minced
- 1 tablespoon cumin
- 1 teaspoon coriander
- 1 teaspoon chili powder
- 2 teaspoons salt
- ½ teaspoon pepper
- 4 cups chopped leafy greens, such as romaine, spinach, or kale
- 2 cups shredded green cabbage
- 2 ounces fresh white button mushrooms, thinly sliced
- ½ cup fresh cherry tomatoes, halved
- 1 avocado, diced
- 2 stalks celery, thinly sliced
- 1 cup shredded Cheddar cheese
- ½ cup full-fat sour cream
- ½ cup prepared salsa

1 cup chopped fresh cilantro leaves

1 bunch scallions, thinly sliced

Juice of 2 limes

In a large skillet over medium heat, combine the ground beef, garlic, cumin, coriander, chili powder, salt, and pepper. Sauté, mixing thoroughly, until the meat is cooked through. Remove from the heat and set aside.

In a large bowl, layer the greens, cabbage, mushrooms, tomatoes, avocado, celery, and cheese.

To make the dressing, whisk together the sour cream, salsa, cilantro, scallions, and lime juice in a small bowl. Spoon the beef mixture over the greens and vegetables and generously drizzle with dressing.

Macronutrient Information

Total calories: 1,453

Fat: 97 grams / 873 calories

Carbs: 37 grams / 148 calories

Protein: 108 grams / 432 calories

Green Chili Chicken Chili

4 servings

Prep time: 8 minutes

Cooking time: 30 minutes

This one-pot chicken-and-vegetable dish hits the spot, bursting with flavors from spicy pork sausage, comforting bone broth, and a big dose of dried and fresh herbs and spices.

2 tablespoons extra-virgin olive oil or lard

1 large yellow onion, chopped

6 garlic cloves, minced

1 pound boneless, skinless chicken thighs, cut into 1-inch cubes

1 pound ground chicken

1 pound spicy bulk sausage

2 medium zucchini, diced

2 cans (14 ounces each) diced green chilies

2 tablespoons cumin

1 tablespoon dried oregano

1 teaspoon coriander

¼ teaspoon cayenne pepper

4 cups chicken bone broth

1 cup chopped fresh cilantro leaves

½ cup thinly sliced scallions

Sliced fresh or pickled jalapeño peppers, full-fat sour cream, shredded cheese, diced black olives, and sliced avocado for topping

Heat the oil in a large stock pot over medium heat. Add the onion and garlic and cook 3 minutes. Add the chicken thighs, ground chicken, and sausage. Cook about 8 minutes, stirring to break up, until almost fully cooked.

Add the zucchini, green chilies, cumin, oregano, coriander, cayenne pepper, and bone broth. Bring to a boil, reduce heat, and simmer, uncovered, for 10 minutes. Remove from the heat, adjust seasoning, and add the cilantro and scallions. Serve hot with toppings on the side.

Macronutrient Information

Total calories: 993

Fat: 61 grams / 549 calories

Carbs: 23 grams / 92 calories

Protein: 88 grams / 352 calories

Caribbean Seafood Stew

2 servings

Prep time: 10 minutes

Cooking time: 20 minutes

Not only is this dish poppin' with exotic flavors, it's also super quick to prepare, thanks to fast-cooking red snapper.

- 2 tablespoons extra-virgin olive oil
- 1 tablespoon freshly squeezed lime juice
- 1 teaspoon salt
- ½ teaspoon pepper
- 1 pound skinless wild caught salmon, tilapia, or mahi-mahi fillets, cut into 1-inch cubes
- 8 ounces uncooked medium shrimp, peeled and deveined
- 2 tablespoons butter or ghee
- 1 medium onion, diced
- 6 garlic cloves, minced
- 1 green bell pepper, seeded and diced
- 2 stalks celery, diced
- 1 teaspoon red pepper flakes
- ½ cup diced fresh tomatoes
- ½ cup unsweetened coconut milk or heavy cream
- ½ cup chopped fresh cilantro leaves
- 1 avocado, diced

In a medium bowl, combine the olive oil, lime juice, salt, pepper, fish, and shrimp and set aside.

In a medium pan, heat the butter over medium-high heat. Add the onion, garlic, bell pepper, celery, and red pepper flakes. Cook about 4 minutes, or until the onion is translucent.

Add the diced tomatoes and coconut milk. Bring to a boil, reduce to a simmer, and cook, uncovered, for 5 minutes. Stir in the fish mixture. Return to a simmer and cook 5 more minutes, or until the shrimp is opaque. Serve hot, with cilantro and avocado on the side.

Macronutrient Information

Total calories: 829

Fat: 41 grams / 369 calories

Carbs: 24 grams / 96 calories

Protein: 91 grams / 364 calories

Moroccan Lamb Stew

2 servings

Prep time: 10 minutes

Cooking time: 20 minutes

The Moroccan spice combinations in this dish will make you feel like you're on a vacation adventure in North Africa. This dish is best eaten with lots of loved ones and candles—so make it for an extra-special occasion and enjoy!

- 4 tablespoons butter or ghee
- 1 small onion, diced
- 1 teaspoon grated fresh ginger
- 6 garlic cloves, minced
- 1 pound ground lamb
- 1 teaspoon smoked paprika
- 2 teaspoons cumin
- 2 teaspoons turmeric
- ½ teaspoon cinnamon
- 2 teaspoons salt
- 1 teaspoon pepper
- 2 cups cauliflower florets, cut into bite-size pieces
- 8 tablespoons tomato paste
- ½ cup unsweetened coconut milk
- 1 cup beef or chicken bone broth
- ½ cup plain full-fat Greek yogurt
- Zest and juice of ½ lemon
- ½ cup chopped fresh cilantro leaves

1 avocado, diced

In a medium Dutch oven over medium-high heat, melt the butter. Add the onion, ginger, and garlic. Sauté 3 minutes, then add the ground lamb, paprika, cumin, turmeric, cinnamon, salt, and pepper. Continue to sauté until the lamb is cooked through, about 5 minutes, stirring occasionally.

Add the cauliflower, tomato paste, coconut milk, and bone broth and stir to combine. Bring to a boil, then reduce to a simmer. Simmer, uncovered, for 5 minutes.

In a small bowl, whisk the yogurt with the lemon zest and juice.

To serve, top individual servings of stew with cilantro, avocado, and lemon-yogurt sauce.

Macronutrient Information

Total calories: 1,105

Fat: 81 grams / 729 calories

Carbs: 35 grams / 140 calories

Protein: 59 grams / 236 calories

Beef Taco Casserole

4 servings

Prep time: 10 minutes

Cooking time: 25 minutes

This casserole eschews the traditional base of white rice in favor of lighter, low-carb cauliflower rice. The cauliflower takes on the delicious flavors of all the many warm and mouthwatering spices in the sauce, so go ahead and keep a supply of cauliflower rice in your fridge or freezer so you can whip up meals like this anytime you like.

2 tablespoons lard, divided

1 (16-ounce) bag frozen cauliflower rice, or prepare
16 ounces of chopped cauliflower in food
processor

1 red or green bell pepper, seeded and diced

1 onion, diced

2 pounds ground beef

1 tablespoon cumin

1 teaspoon coriander

1 teaspoon salt

½ teaspoon pepper

1 teaspoon chili powder

1 teaspoon garlic powder

8 tablespoons tomato paste

1 cup shredded Cheddar or Colby cheese

Toppings

1 cup full-fat sour cream

2 cups shredded greens, such as romaine or
cabbage

1 cup diced fresh tomatoes

½ cup diced black olives

2 avocados, sliced

1 cup chopped fresh cilantro leaves

1 jalapeño pepper, seeded and thinly sliced

1 cup prepared salsa

Preheat the oven to 425°F.

In a large skillet, heat 1 tablespoon of the lard over medium-high heat. Add the cauliflower rice and sauté until brown. Transfer to a 9- × 13-inch casserole dish and set aside.

In the same skillet over medium-high heat, melt the remaining lard. Add the bell pepper and onion. Cook until just softened, then add the ground beef. Add the cumin, coriander, salt, pepper, chili powder, and garlic powder and toss to coat, breaking up the meat as it cooks.

Just before the meat is cooked through, stir in the tomato paste and mix thoroughly. Layer the beef mixture on top of the cauliflower rice, top with shredded cheese, and bake for 12 minutes.

Remove the casserole from the oven. Spread sour cream over the top, then follow with the remaining toppings, sprinkling them over the sour cream in layers.

Macronutrient Information

Total calories: 1,090

Fat: 70 grams / 630 calories

Carbs: 39 grams / 156 calories

Protein: 76 grams / 304 calories

Beef and Broccoli

2 servings

Prep time: 5 minutes

Cooking time: 15 minutes

This popular ancestral staple meal is better than ever, thanks to the addition of freshly grated ginger and chopped nuts. Your mouth is going to water just thinking about it! Note: Coconut aminos is a liquid condiment similar to soy sauce, but instead of being fermented from soybeans, it's fermented from the sap of coconut palm trees and sea salt. It's gluten- and grain-free and used often in Asian cuisine. It's a great replacement in recipes calling for soy sauce or tamari.

4 tablespoons extra-virgin olive oil or avocado oil,
divided

1½ pounds sirloin steak, sliced against the grain

4 cups broccoli florets

½ cup coconut aminos

4 garlic cloves, minced

½ teaspoon red pepper flakes

1 teaspoon grated fresh ginger

½ cup chopped nuts, such as Brazil nuts, macadamia
nuts, almonds, or pecans

½ cup thinly sliced scallions

¼ cup beef bone broth

Heat 2 tablespoons of the oil in a large skillet over high heat. Add the steak and brown quickly, then transfer to a plate and set aside.

Reduce the heat to medium-high, then add the remaining

oil. Add the broccoli and cook 5 minutes, stirring occasionally. Return the steak to the pan, then add the coconut aminos, garlic, red pepper flakes, ginger, nuts, scallions, and bone broth. Stir to combine and cook 2 minutes to thicken slightly. Serve immediately.

Macronutrient Information

Total calories: 1,550

Fat: 106 grams / 954 calories

Carbs: 34 grams / 136 calories

Protein: 115 grams / 460 calories

Chicken Thighs with Chard in Mushroom Cream Sauce

2 servings

Prep time: 5 minutes

Cooking time: 25 minutes

Never underestimate how indulgent chicken thighs can taste when you roast them and add cream and mushrooms. Instead of using cans of condensed mushroom soup, opt for the real deal, with fresh mushrooms and organic heavy cream (or coconut cream if you prefer).

1 tablespoon Italian seasoning

2 teaspoons salt

1 teaspoon pepper

4 bone-in chicken thighs

2 tablespoons extra-virgin olive oil

4 slices uncured bacon, chopped

8 ounces fresh mushrooms, chopped

3 cups chopped Swiss chard

4 garlic cloves, minced

1 cup heavy cream or unsweetened coconut cream

1 teaspoon chopped fresh thyme

Salt and pepper to taste

Preheat the oven to 375°F. Line a baking sheet with parchment paper.

In a small bowl, combine the Italian seasoning, salt, and pepper. Arrange the chicken thighs on the prepared baking sheet and cover evenly with the seasoning mixture. Bake for

20 minutes.

In a large skillet, heat the olive oil over medium heat. Add the chopped bacon and sauté until fully cooked. Using a slotted spoon, transfer to a bowl, reserving the fat in the skillet.

Increase the heat to medium-high and add the mushrooms. Cook until golden brown, then add the chopped chard, garlic, cream, and thyme. Cook to wilt the chard, about 3 minutes. Add the cooked chicken thighs and bacon and simmer for 3 minutes. Taste and adjust seasoning, then serve hot.

Macronutrient Information

Total calories: 903

Fat: 71 grams / 639 calories

Carbs: 13 grams / 52 calories

Protein: 53 grams / 212 calories

Italian Stuffed Bell Peppers

2 servings

Prep time: 10 minutes

Cooking time: 25 minutes

Stuffed bell peppers are typically filled with rice, but you can do better with ground beef and Italian sausage. Top with Parmesan and broil, and you have yourself the most convenient of gourmet meals. Try it tonight!

½ pound ground beef

½ pound bulk Italian sausage

2 tablespoons extra-virgin olive oil

1 onion, diced

2 stalks celery, sliced

6 garlic cloves, minced

1 tablespoon Italian seasoning

1 cup diced fresh tomatoes

½ cup chopped fresh parsley

2 red or green bell peppers, cored, seeded, and halved lengthwise

½ cup grated Parmesan cheese

In a large skillet over medium-high heat, cook the ground beef and sausage, breaking up the meat into bite-size pieces. When the meat is cooked through, transfer to a plate and set aside.

Heat the olive oil in the same skillet, then add the onion and celery, cooking until softened, about 3 minutes. Add the garlic, Italian seasoning, and diced tomatoes. Cook 5 minutes, then return the cooked meat to the skillet. Add fresh parsley

and toss to combine. Remove from the heat.

Preheat the broiler to its highest setting. Line a baking sheet with parchment paper, then arrange the peppers on the sheet, cut side up. Using your hands, fill the pepper “boats” with the meat mixture, rounding the tops. Top with the Parmesan cheese and place on the middle shelf of the oven. Broil for 2 to 3 minutes, until the cheese is bubbly and golden. Serve hot.

Macronutrient Information

Total calories: 955

Fat: 67 grams / 603 calories

Carbs: 27 grams / 108 calories

Protein: 61 grams / 244 calories

Mediterranean Stuffed Bell Peppers

2 servings

Prep time: 10 minutes

Cooking time: 25 minutes

Mediterranean flavors, such as olive, lemon, artichoke, and feta, always make for an intense and satisfying meal. Naturally salty, these peppers will taste delicious after you have ditched processed foods and your body is craving a healthy dose of sodium.

½ pound ground lamb

1 tablespoon butter

1 tablespoon avocado oil

½ pound bulk Italian sausage

1 onion, diced

4 garlic cloves, minced

1 teaspoon Italian seasoning

1 teaspoon dried oregano

¼ cup chopped kalamata olives

½ cup drained and chopped marinated artichoke hearts

½ cup diced fresh tomatoes

¼ cup chopped fresh parsley

Zest of 1 lemon

2 red or green bell peppers, cored, seeded, and halved lengthwise

¼ cup crumbled feta cheese

In a large skillet over medium-high heat, cook the lamb and

sausage in one tablespoon of butter, breaking the meat into bite-size pieces. Sauté until cooked through, then transfer to a plate with a slotted spoon.

To the fat remaining in the skillet, add a tablespoon of avocado oil and onion and cook until translucent, about 3 minutes. Add the garlic, Italian seasoning, oregano, olives, artichoke hearts, and diced tomatoes. Cook 5 minutes more, then return the cooked meat to the skillet. Add the parsley and lemon zest and toss to combine. Remove from the heat.

Preheat the broiler to its highest setting. Line a baking sheet with parchment paper, then arrange the peppers on the sheet, cut side up. Using your hands, fill the pepper “boats” with the meat mixture, rounding the tops. Top with the feta cheese and place on the middle shelf of the oven. Broil for 2 to 3 minutes, until the cheese is bubbly and golden. Serve hot.

Macronutrient Information

Total calories: 875

Fat: 63 grams / 567 calories

Carbs: 23 grams / 92 calories

Protein: 54 grams / 216 calories

Spiced Fish Taco Bowl with Avocado-Lime Crema

2 servings

Prep time: 10 minutes

Cooking time: 10 minutes

Any meal featuring this exotic creation is sure to be a hit. The macadamia nut topping will make you the star of any potluck gathering.

2 large fillets (about 14 ounces each) halibut or cod,
chopped into bite-size pieces

1 teaspoon salt

½ teaspoon pepper

1 teaspoon cumin

½ teaspoon chili powder

2 tablespoons extra-virgin olive oil or avocado oil

2 cups fresh or frozen cauliflower rice

2 cups shredded green cabbage or coleslaw mix

4 radishes, thinly sliced

¼ cup chopped macadamia nuts

For the dressing

1 avocado

1 bunch fresh cilantro leaves

½ cup avocado oil–based mayonnaise, such as
Primal Kitchen Mayo

Zest and juice of 2 limes

1 garlic clove

1 teaspoon salt

Pat the fish dry with paper towels and season with salt, pepper, cumin, and chili powder.

Heat the oil in a large skillet over medium-high heat. Cook the fish until fork-tender, 6 to 8 minutes total, turning halfway through. Add the cauliflower rice, toss, and remove from the heat.

To make the dressing, combine the avocado, cilantro, mayonnaise, lime zest and juice, garlic, and salt in a blender. Blend until smooth.

Spread the cabbage at the bottom of a large bowl, then layer the fish mixture over it. Top with the dressing, radishes, and macadamia nuts.

Macronutrient Information

Total calories: 1,866

Fat: 106 grams / 954 calories

Carbs: 68 grams / 272 calories

Protein: 160 grams / 640 calories

Dill Pickle Super Burgers

2 servings

Prep time: 10 minutes

Cooking time: 12 minutes

Classic dill pickle is paired with pepperoncini, cream cheese, and fresh dill and finished with a healthy scoop of gut-healing sauerkraut. The satiety score is off the charts. Are you salivating yet?

- 1 pound ground bison or beef
- 1 teaspoon salt
- ½ teaspoon pepper
- 1½ teaspoons garlic powder, divided
- 1 teaspoon onion powder
- 1 tablespoon lard or beef tallow
- 8 slices uncured bacon, diced
- 4 ounces full-fat cream cheese, softened
- ½ cup diced dill pickles
- 1 tablespoon dill pickle juice
- ¼ cup diced pepperoncini
- 1 tablespoon chopped fresh dill
- ¼ cup thinly sliced scallions
- 2 large romaine or Bibb lettuce leaves
- ½ cup drained sauerkraut

In a medium bowl, combine the ground meat with the salt, pepper, 1 teaspoon garlic powder, and onion powder.

In a large skillet, heat the lard over medium-high heat. Fry

the bacon pieces until just crisp. Remove with a slotted spoon, reserving the fat in the pan.

Shape the meat mixture into two oval patties. Sauté in the remaining fat over medium-high heat for 3 minutes per side.

In a small bowl, combine the cream cheese, dill pickles, pickle juice, pepperoncini, remaining garlic powder, dill, and scallions. Arrange each meat patty on a lettuce leaf and top with a generous dollop of the cream cheese mixture and sauerkraut.

Macronutrient Information

Total calories: 857

Fat: 57 grams / 513 calories

Carbs: 12 grams / 48 calories

Protein: 74 grams / 296 calories

Lemony Tuna Casserole

2 servings

Prep time: 10 minutes

Cooking time: 15 minutes

Put a creative spin on an all-American classic by using cabbage or spaghetti squash instead of pasta.

1 stick butter

1 large onion, diced small

4 stalks celery, diced

1 small or medium head green cabbage, cut into ½-inch strips, or 4 cups cooked spaghetti squash (see note below)

12–15 ounces sustainably harvested canned tuna packed in water, drained

6 garlic cloves, minced

Zest of 1 lemon

Juice of ½ lemon

¼ cup chopped fresh parsley

½ teaspoon salt

½ teaspoon pepper

¼ teaspoon red pepper flakes

½ cup frozen green peas, thawed (optional)

In a large skillet, melt the butter over medium heat. Sauté the onion and celery until translucent, about three minutes. Add the cabbage, then increase the heat to medium-high. Toss frequently and cook until softened.

Add the tuna, garlic, lemon zest and juice, parsley, salt,

pepper, red pepper flakes, and peas if desired. Remove from the heat and toss to coat. Adjust seasoning, then serve hot.

To roast spaghetti squash, preheat the oven to 450°F. Line a baking sheet with parchment paper. Cut a small spaghetti squash in half lengthwise, scoop out the seeds, and season generously with olive oil, salt, and pepper. Place the halves cut side down on the prepared baking sheet and roast until fork-tender and slightly golden, about 25 minutes.

Macronutrient Information

Total calories: 1,052

Fat: 64 grams / 576 calories

Carbs: 49 grams / 196 calories

Protein: 70 grams / 280 calories

Spring Vegetable and Chicken Carbonara Skillet

2 servings

Prep time: 10 minutes

Cooking time: 20 minutes

Use asparagus in the spring, brussels sprouts in the fall, and cabbage in the winter—or choose from among other fresh seasonal options at your local farmer’s market.

8 slices uncured bacon, diced

1 small onion, diced small

4 boneless, skinless chicken thighs, cut into 1-inch cubes

1 teaspoon salt

½ teaspoon pepper

1 small bunch asparagus, trimmed and cut into bite-size chunks

¼ cup frozen green peas, thawed (optional)

4 garlic cloves, minced

Zest of 1 lemon

Juice of ½ lemon

¼ cup chopped fresh basil

¼ cup chopped fresh parsley

1 stick butter

½ cup heavy cream

½ cup grated Parmesan cheese

In a large skillet, cook the bacon pieces over medium-high heat until crisp. Using a slotted spoon, transfer the pieces to a

plate and set aside, reserving the fat in the skillet.

Add the onion to the skillet and cook until translucent, about 5 minutes. Add the chicken thighs, salt, and pepper. Just before the meat is cooked through, add the asparagus, peas (if desired), garlic, and lemon zest and juice. Sauté for 2 minutes, then add the basil, parsley, butter, cream, and Parmesan.

Stir to combine. Bring to a boil, then reduce the heat and simmer for 3 minutes. Adjust seasoning, then serve hot.

Macronutrient Information

Total calories: 1,150

Fat: 94 grams / 846 calories

Carbs: 15 grams / 60 calories

Protein: 61 grams / 244 calories

Roasted Crowns Casserole

2 servings

Prep time: 10 minutes

Cooking time: 15 minutes

Cruciferous vegetables such as cauliflower and broccoli pair beautifully with healthful mayonnaise and melted cheese. Italian sausage rounds out this dish with a big dose of protein and nutritious fat. Once you've made this a couple of times, you'll have it committed to memory and be able to whip it up in no time.

2 cups fresh cauliflower florets

2 cups fresh broccoli florets

¼ cup extra-virgin olive oil

1 teaspoon salt

1 teaspoon pepper, divided

1½ pounds bulk Italian pork sausage

4 garlic cloves, minced

Zest of 1 lemon

1 tablespoon freshly squeezed lemon juice

½ cup avocado oil–based mayonnaise, such as
Primal Kitchen Mayo

½ cup shredded sharp Cheddar cheese

1 bunch scallions, thinly sliced, divided

Preheat the broiler to its highest setting. Line two baking sheets with parchment paper. Arrange the broccoli and cauliflower florets in a single layer on the baking sheet and season with olive oil, salt, and ½ teaspoon pepper. Place the pan on the top shelf of the oven and broil for 3 to 5 minutes, or

until the florets begin to char slightly. Remove from the oven and set aside.

Reduce the broiler heat to its lowest setting and place a shelf in the bottom half of the oven. In a large, ovenproof skillet over medium-high heat, cook the sausage, breaking it into bite-size pieces.

Meanwhile, in a small bowl, combine the garlic, lemon zest and juice, mayonnaise, cheese, half the scallions, and remaining $\frac{1}{2}$ teaspoon pepper. Once the sausage is cooked through, add the broiled broccoli and cauliflower to the skillet and toss to combine. Top with the seasoned mayonnaise mixture, then place the pan on the low shelf and broil until the top is golden and bubbly, about 3 minutes. Sprinkle with the remaining scallions and serve hot.

Macronutrient Information

Total calories: 1,692

Fat: 140 grams / 1,260 calories

Carbs: 33 grams / 132 calories

Protein: 75 grams / 300 calories

Sheet-Pan Sausage and Cabbage

2 servings

Prep time: 5 minutes

Cooking time: 20 minutes

This German-inspired dish is naturally low in carbohydrates, easy to prepare, and absolutely delicious.

4 cooked sausage links of your choice

1 small head green cabbage, cut into 8 wedges

4 tablespoons extra-virgin olive oil

1 teaspoon salt

½ teaspoon pepper

1 teaspoon garlic powder

1 teaspoon onion powder

French Whole Grain Old Fashioned Mustard (sugar-free brand) for serving (1–2 tablespoons to preference)

Preheat the oven to 450°F. Line a baking sheet with parchment paper.

Arrange the sausages and cabbage wedges on the prepared baking sheet. Drizzle the cabbage with olive oil.

In a small bowl, combine the salt, pepper, garlic powder, and onion powder. Sprinkle the seasoning mixture generously over the cabbage. Roast for 20 minutes and serve hot with whole-grain mustard.

Macronutrient Information

Total calories: 677

Fat: 49 grams / 441 calories

Carbs: 26 grams / 104 calories

Protein: 33 grams / 132 calories

Shepherd's Pie

4 servings

Prep time: 15 minutes

Cooking time: 25 minutes

Ground lamb and yellow curry powder combine with fresh vegetables and healthful fats, butter, and Parmesan cheese to bring you comfort in every bite. This is wonderful any time of year, because the vegetables can be sourced year-round. Fresh ground lamb is in peak season in the United States from March to October but can generally be found frozen during the winter.

1 medium head cauliflower, cut into large florets

2 garlic cloves

1 tablespoon plus 1 teaspoon salt, divided

2 tablespoons lard or beef tallow

1 medium onion, diced

2 celery stalks, thinly sliced

2 carrots, diced

4 ounces fresh mushrooms, diced

2 pounds ground lamb

1 teaspoon pepper, divided

½ teaspoon yellow curry powder

1 teaspoon smoked paprika

6 garlic cloves, minced

1 stick butter, melted

½ cup grated Parmesan cheese

¼ cup chopped fresh parsley

Preheat the broiler to its lowest setting.

Place florets, whole garlic cloves, and 1 teaspoon salt in a medium pot. Add just enough water to cover. Bring to a boil, reduce heat, and simmer for 12 to 15 minutes, until florets are fork-tender.

Meanwhile, in a large ovenproof skillet, melt the lard over medium-high heat. Add the onion, celery, carrots, and mushrooms. Cook 3 minutes. Add the lamb and season with 1 tablespoon salt, $\frac{1}{2}$ teaspoon pepper, curry powder, paprika, and minced garlic. Cook, stirring occasionally, until lamb is cooked through.

When the cauliflower is fork-tender, drain well and transfer to the bowl of a food processor. Add the melted butter, Parmesan, and the remaining $\frac{1}{2}$ teaspoon pepper. Puree until smooth. Taste and adjust seasoning.

Top the meat mixture in the skillet with the cauliflower mash and broil in the oven for about 6 to 8 minutes, or until warmed through and slightly golden. Serve hot, garnished with chopped parsley.

Macronutrient Information

Total calories: 1,027

Fat: 79 grams / 711 calories

Carbs: 19 grams / 76 calories

Protein: 60 grams / 240 calories

Asian Lettuce Cups

2 servings

Prep time: 10 minutes

Cooking time: 15 minutes

It's amazing how fresh herbs and spices and good-quality cooking oils can transform your meals. Ginger, sesame oil, and chili garlic sauce make these Asian lettuce wraps extra mouthwatering without leaving you feeling stuffed or bloated. Warning: restaurant versions of this dish will pale in comparison to your creation forevermore!

2 tablespoons lard

1 small onion, minced

1½ pounds ground turkey or chicken

4 garlic cloves, minced

1 teaspoon grated fresh ginger

1 carrot, shredded

2 stalks celery, thinly sliced

¼ cup coconut aminos

1 tablespoon toasted sesame oil

1 tablespoon prepared Yai's Thai Chili Garlic Sauce
(sugar-free brand)

1 head Bibb lettuce

1 cup chopped fresh cilantro leaves

½ cup chopped nuts, such as macadamia nuts or
almonds

Melt the lard in a large skillet over medium-high heat. Add the onion and sauté for 2 minutes, then add the ground meat. Cook through, stirring occasionally to break up the meat,

about 10 minutes.

Add the garlic, ginger, carrot, celery, coconut aminos, sesame oil, and chili garlic sauce. Cook for 2 minutes, stirring to combine well.

Divide the mixture between the two lettuce cups and top with cilantro and chopped nuts.

Macronutrient Information

Total calories: 1,372

Fat: 100 grams / 900 calories

Carbs: 26 grams / 104 calories

Protein: 92 grams / 368 calories

Instant Pot Pulled Pork and Coleslaw

4 servings

Prep time: 8 minutes

Cooking time: 30 minutes

Have you tried cooking pork in the Instant Pot electric pressure cooker? Every tender and juicy bite will taste just as if it's been slow-cooking all day. After you make it this way, you won't want to cook it any other way. Enjoy this throughout the week over a big pile of leafy greens, in a bowl with cauliflower rice, or just by itself—it's that good!

2 tablespoons lard

1 large onion, cut into large dice

8 garlic cloves, minced

3 tablespoons cumin

1 tablespoon coriander

1 tablespoon paprika

1 tablespoon oregano

1 teaspoon powdered mustard

½ cup coconut aminos

1½ teaspoons salt, divided

1½ teaspoons pepper, divided

3 pounds pork shoulder or sirloin roast, cut into 2-inch cubes

½ cup bone broth

1 cup avocado oil-based mayonnaise, such as Primal Kitchen Mayo

¼ cup apple cider vinegar

2 bags coleslaw mix (11 ounce/240 gram bags or 8 cups total)

Combine the lard and onion in the bottom of an Instant Pot and cook on the sauté setting for 2 minutes. Then add the garlic, cumin, coriander, paprika, oregano, mustard, coconut aminos, 1 teaspoon salt, 1 teaspoon pepper, and pork. Stir to coat, then add the bone broth. Cover and cook on the meat setting for 20 minutes.

Meanwhile, combine the mayonnaise, vinegar, remaining $\frac{1}{2}$ teaspoon salt, and remaining $\frac{1}{2}$ teaspoon pepper in a large bowl. Add the coleslaw mix and toss thoroughly to combine.

When the pork is done, remove it from the pot, shred or chop it, then return it to the pot so it can soak up the juices.

Serve hot, spooning the pork over the coleslaw mixture or serving coleslaw on the side.

Macronutrient Information

Total calories: 1,285

Fat: 85 grams / 765 calories

Carbs: 45 grams / 180 calories

Protein: 85 grams / 340 calories

Skillet Reuben

2 servings

Prep time: 5 minutes

Cooking time: 15 minutes

Salty corned beef broiled with sweet Swiss cheese captures hearts every single time, so make this when you need a little extra self-love or when you're wanting to share that love with a friend.

3 tablespoons butter

1½ pounds corned beef, coarsely chopped

1 large bag coleslaw mix (11-ounce/240-gram bag or 4 cups total)

1 bunch scallions, thinly sliced

4 slices Swiss cheese

1 cup sauerkraut

For the dressing

1 cup avocado oil-based mayonnaise, such as Primal Kitchen Mayo

1 tablespoon tomato paste

1 tablespoon prepared horseradish

1 teaspoon apple cider vinegar

½ teaspoon salt

½ teaspoon pepper

Preheat the broiler to its highest setting.

In a large ovenproof skillet over medium-high heat, melt the butter. Add the corned beef and sauté for 3 minutes. Add the coleslaw mix and sauté for 5 minutes, stirring occasionally.

Top with scallions, then cheese slices, and place under the broiler for 2 to 3 minutes, or until cheese is bubbly and golden.

In a small bowl, whisk together the mayonnaise, tomato paste, horseradish, vinegar, salt, and pepper.

Remove the skillet from the broiler and serve with the sauce drizzled over the top and the sauerkraut on the side.

Macronutrient Information

Total calories: 1,245

Fat: 77 grams / 693 calories

Carbs: 50 grams / 200 calories

Protein: 88 grams / 352 calories

Lemon and Herb Pork Tenderloins with Broiled Broccoli

4 servings

Prep time: 15 minutes, plus 30 or more minutes of marinating time

Cooking time: 20 minutes

Adding lemon zest to a warm recipe like this gives it a special burst of flavor, so try to keep fresh lemons in your kitchen at all times. Get comfortable using your broiler by watching the pan carefully and pulling it out when the meat and vegetables are perfectly bronze and crispy but not burned. Adjust the cooking times based on your experience, because ovens can vary a bit.

Zest and juice of 4 lemons

1 cup extra-virgin olive oil

8 garlic cloves, minced

1 tablespoon French Whole Grain Old Fashioned Mustard

1 tablespoon chopped fresh rosemary

1 tablespoon chopped fresh parsley

1 teaspoon chopped fresh thyme

1–2 tablespoons salt, or more or less to taste

1 teaspoon pepper

2 pork tenderloins, about 1 pound each

For the broccoli

5 cups fresh broccoli florets

¼ cup extra-virgin olive oil

1 tablespoon salt

1 teaspoon pepper

Combine lemon zest and juice, olive oil, garlic, mustard, rosemary, parsley, thyme, salt, and pepper in a large nonreactive bowl, glass baking dish, or gallon-size resealable plastic bag. Add the pork tenderloins and marinate at least 30 minutes or overnight.

Preheat the broiler to its highest setting and heat a grill to medium-high. Line a baking sheet with parchment paper and arrange the broccoli on it in a single layer. Season with the olive oil, salt, and pepper and set aside.

Place the tenderloins on the grill, reserving the marinade. Cook for 6 to 8 minutes on each side, until the internal temperature reaches 140°F. Remove from the heat and let rest for 10 minutes before cutting.

Meanwhile, place the broccoli pan in the top third of the oven and broil for about 6 minutes, or until the florets are crisp-tender and beginning to char.

Transfer the remaining meat marinade to a small saucepan. Bring to a boil, then boil for 3 minutes. Remove from the heat.

Slice the tenderloins into one-inch rounds and serve with broccoli and warm marinade drizzled over the top.

Macronutrient Information

Total calories: 1,065

Fat: 81 grams / 729 calories

Carbs: 15 grams / 60 calories

Protein: 69 grams / 276 calories

Chaffle BLTs with Avocado and Lemon-Garlic Aioli

2 servings

Prep time: 5 minutes

Cooking time: 15 minutes

Remember my brilliant suggestion to make chaffles in advance so you can have them ready in the freezer when you need them ([here](#))? Well, now's the time to haul those chaffles out and whip up these open-faced sammies with mouthwatering lemon-garlic aioli. The savory taste will make them a favorite as soon as you take your first bite!

2 large pastured eggs

1 cup shredded cheese, such as Cheddar or a mixture of half Parmesan and half mozzarella

½ teaspoon pepper

1 scallion, thinly sliced

4 large romaine or Bibb lettuce leaves

8 slices uncured bacon, cooked

1 avocado, sliced

1 large fresh tomato, sliced

For the aioli

½ cup avocado oil–based mayonnaise, such as Primal Kitchen Mayo

1 large garlic clove, minced

Zest and juice of ½ lemon

¼ teaspoon pepper

In a medium bowl, combine the eggs, shredded cheese,

pepper, and scallion. Pour the batter into a waffle maker and cook according to the manufacturer's directions—in two batches if necessary—until golden brown. Transfer to a wire rack.

While the chaffles are cooking, make the aioli: in a small bowl, whisk together the mayonnaise, garlic, lemon zest and juice, and pepper.

Onto each chaffle, layer a lettuce leaf, followed by two slices of bacon, some avocado slices, and some tomato slices. Drizzle the sandwiches with aioli and serve.

Macronutrient Information

Total calories: 763

Fat: 59 grams / 531 calories

Carbs: 25 grams / 100 calories

Protein: 33 grams / 132 calories

Quick Butter Chicken and Cauliflower Rice

2 servings

Prep time: 10 minutes

Cooking time: 30 minutes

If you're tired of plain old chicken, reinvigorate your taste buds with this preparation of cubed meat simmered in butter with diced tomatoes and fresh herbs and spices.

4 tablespoons butter or ghee, divided

4 boneless, skinless chicken thighs, cut into 1-inch cubes

1 small onion, minced

4 cloves garlic, minced

1 teaspoon grated fresh ginger

1 teaspoon turmeric

2 teaspoons garam masala

1½ teaspoons salt, divided

¾ teaspoon pepper, divided

½ teaspoon smoked paprika

1 teaspoon cumin

1 teaspoon coriander

½ teaspoon cayenne pepper

1 (14-ounce) can diced tomatoes

½ cup heavy cream or unsweetened coconut cream

3 cups fresh or frozen cauliflower rice

1 tablespoon freshly squeezed lemon juice

½ cup chopped fresh cilantro leaves

In a large pot or Dutch oven, melt 2 tablespoons butter over medium-high heat. Add the chicken and sauté until almost cooked through, about 8 minutes. Transfer to a plate and set aside.

Add the onion to the pot and cook until translucent, about 3 minutes, stirring occasionally to scrape up brown bits from the bottom. Add the garlic, ginger, turmeric, garam masala, 1 teaspoon salt, ½ teaspoon pepper, paprika, cumin, coriander, and cayenne. Stir and cook until fragrant, about 30 seconds. Add the diced tomatoes and simmer for 10 minutes. Using an immersion blender, blend mixture until smooth. (Alternatively, transfer the mixture to a blender, blend until smooth, then return to the pot.)

Add the cream and stir to combine. Return the chicken and its juices to the pot. Bring to a simmer, then simmer for 5 minutes.

Meanwhile, melt the remaining 2 tablespoons butter in a medium saucepan over medium-high heat. Add the cauliflower rice and the remaining ½ teaspoon salt and ¼ teaspoon pepper. Cook until the rice is heated through and begins to brown slightly.

Divide the cauliflower rice between two serving plates. Top with the chicken and garnish with the lemon juice and cilantro.

Macronutrient Information

Total calories: 1,311

Fat: 99 grams / 891 calories

Carbs: 51 grams / 204 calories

Protein: 54 grams / 216 calories

Dry-Rubbed Chicken Thighs with Broiled Zucchini

2 servings

Prep time: 5 minutes

Cooking time: 25 minutes

Summer, when zucchini is at its best, is the perfect time to put this recipe on Repeat. A little Parmesan cheese goes a long way, heightening this dish's naturally sweet and salty flavors.

4 boneless, skinless chicken thighs

4 small zucchini, cut in half lengthwise

1 teaspoon salt

½ teaspoon garlic powder

½ teaspoon onion powder

½ teaspoon paprika

½ teaspoon Italian seasoning

1 teaspoon pepper, divided

1 tablespoon extra-virgin olive oil or avocado oil

2 tablespoons grated Parmesan cheese

Preheat the oven to 425°F. Line two baking sheets with parchment paper. Arrange the chicken thighs on one and the zucchini halves on the other.

In a small bowl, combine the salt, garlic powder, onion powder, paprika, Italian seasoning, and ½ teaspoon pepper. Rub the seasoning mixture into the chicken thighs with your fingers. Put the chicken in the oven and bake for 20 minutes.

Meanwhile, drizzle the zucchini halves with the olive oil and sprinkle with Parmesan and the remaining ½ teaspoon pepper.

Turn the oven to its lowest broiler setting and move the chicken to the bottom rack. Place the zucchini pan in the top third of the oven and broil for about 5 minutes, or until zucchini is fork-tender and the cheese is bubbly.

Once the chicken thighs reach an internal temperature of 160°F., remove them from the oven and serve with the zucchini immediately.

Macronutrient Information

Total calories: 756

Fat: 36 grams / 324 calories

Carbs: 20 grams / 80 calories

Protein: 88 grams / 352 calories

Broiled Salmon and Asparagus

2 servings

Prep time: 5 minutes

Cooking time: 10 minutes

Freshly broiled salmon served with seasonal vegetables is one of the greatest culinary pairings known to humankind. Keep a supply of frozen wild-caught salmon fillets in your freezer so you can whip up this dish anytime, along with the freshest vegetables of the season.

2 garlic cloves, minced

½ teaspoon minced fresh rosemary

½ teaspoon minced fresh thyme

1 tablespoon prepared whole-grain mustard

¼ cup plus 1 tablespoon extra-virgin olive oil, divided

1 teaspoon salt, plus more to taste

½ teaspoon pepper, plus more to taste

Zest of 1 lemon

Juice of ½ lemon

2 salmon fillets, about 8 ounces each

1 bunch fresh asparagus, ends trimmed

Preheat the broiler to its highest setting. Line a sheet pan with parchment paper.

In a small bowl, combine the garlic, rosemary, thyme, mustard, ¼ cup olive oil, 1 teaspoon salt, ½ teaspoon pepper, and lemon zest and juice.

Arrange the salmon fillets and asparagus on the prepared sheet pan. Drizzle the asparagus with 1 tablespoon olive oil and season with salt and pepper. Broil on the middle rack of

the oven for 2 minutes, then cover the salmon fillets with the mustard-herb sauce and broil until flaky and just cooked through, about 5 minutes. Remove from the oven and serve immediately.

Macronutrient Information

Total calories: 1,009

Fat: 53 grams / 477 calories

Carbs: 12 grams / 48 calories

Protein: 121 grams / 484 calories

Asian Turkey Meatballs with Roasted Spaghetti Squash

2 servings

Prep time: 10 minutes

Cooking time: 25 minutes

Anyone who takes the leap and replaces grain-based pasta with spaghetti squash knows the truth: not only is spaghetti squash much more healthful, it also tastes much better! If you have an Instant Pot, your squash cooking time will be reduced dramatically, giving you more time to play outside.

- 1 small spaghetti squash
- 2 tablespoons extra-virgin olive oil
- Salt and pepper to taste
- 1 pound ground turkey
- 1 cup chopped fresh cilantro leaves, divided
- 1 cup chopped scallions, divided
- 1 tablespoon Yai's Thai Chili Garlic Hot Sauce, plus more for serving if desired
- 2 tablespoons coconut aminos
- 3 garlic cloves, minced
- 1 teaspoon grated fresh ginger
- 1 large egg
- 1 teaspoon sesame oil
- 1 teaspoon sesame seeds (raw or roasted at 350°F for 12 to 15 minutes on parchment paper, tossing every 5 minutes; stored in airtight container after completely cooled)

Preheat the oven to 450°F. Line two baking sheets with parchment paper.

Cut the spaghetti squash in half lengthwise. Scoop out the seeds, then season the inside of both halves with olive oil, salt, and pepper. Place the halves cut side down on one of the sheet pans and bake for 25 minutes.

Meanwhile, combine the turkey, ½ cup cilantro, ½ cup scallions, 1 tablespoon chili garlic sauce, coconut aminos, garlic, ginger, egg, and sesame oil in a medium bowl. Roll into balls about 2 inches in diameter and arrange them on the second sheet pan.

When the squash is done, set it aside to cool, then preheat the broiler to its highest setting. Place the meatballs in the bottom third of the oven and broil for 13 minutes.

While the meatballs cook, scoop out the spaghetti squash flesh with a large fork and divide it between two serving plates. Serve the hot meatballs over the spaghetti squash and garnish with the remaining cilantro and scallions, the sesame seeds, and additional chili sauce if desired.

Macronutrient Information

Total calories: 746

Fat: 46 grams / 414 calories

Carbs: 20 grams / 80 calories

Protein: 63 grams / 252 calories

Grilled Cilantro-Lime Flank Steak with Spiced Sesame Green Beans

4 servings

Prep time: 10 minutes, plus 30 or more minutes of
marinating time

Cooking time: 15 minutes

The fresh flavor of lime pairs with the warm and grounding flavors of coconut aminos and sesame oil for a delicious and memorable combination. Flank steak marinates in just thirty minutes, making this recipe a great choice when you're pressed for time.

1 cup extra-virgin olive oil

2 bunches cilantro leaves

2 bunches scallions (white and tender green parts
only)

8 garlic cloves

Zest and juice of 6 limes

1 tablespoon salt

1 teaspoon pepper

2 pounds flank steak

2 tablespoons butter

1 tablespoon sesame oil

2 tablespoons coconut aminos

1 tablespoon Yai's Thai Chili Garlic Hot Sauce

2 pounds fresh green beans

¼ cup water

In a blender, combine the olive oil, cilantro, scallions,

garlic, lime zest and juice, salt, and pepper. Blend until smooth. Pour half the sauce into a large nonreactive baking dish or a resealable plastic bag. Add the flank steak and massage to coat. Marinate at least 30 minutes or overnight.

Heat a grill to medium-high. Place the marinated flank steak on the grill and cook for about 5 minutes per side. Remove when the internal temperature reaches 125°F. Place the meat on a cutting board and tent with foil to finish the cooking process.

In a large pan, melt the butter over medium-high heat. Add the sesame oil, coconut aminos, and chili garlic sauce. Stir together, then add the green beans, tossing to coat. Cook, stirring occasionally, for 5 minutes. Add water and continue to cook, stirring, until the liquid evaporates and the beans are tender.

Slice the steak against the grain and serve it alongside the green beans, drizzled with the remaining herb sauce.

Macronutrient Information

Total calories: 1,176

Fat: 84 grams / 756 calories

Carbs: 30 grams / 120 calories

Protein: 75 grams / 300 calories

Chicken Divan

4 servings

Prep time: 15 minutes

Cooking time: 30 minutes

Creamy chicken with broccoli and mushrooms gets even more comforting and pleasurable with the addition of shredded Cheddar cheese.

1 stick butter, divided

8 boneless, skinless chicken thighs, cut into 1-inch cubes

3 ½ teaspoons salt, divided

1 ¾ teaspoons pepper, divided

3 cups broccoli florets, cut into bite-size pieces

8 ounces fresh mushrooms, diced

1 small onion, diced

6 garlic cloves, minced

1 cup heavy cream or unsweetened coconut cream

½ cup chopped fresh parsley

2 cups shredded Cheddar cheese

Preheat the oven to 425°F.

In a large skillet over medium heat, melt 4 tablespoons butter. Add the chicken pieces, season with 1 teaspoon salt and ½ teaspoon pepper, and sauté until cooked through, about 5 minutes. Transfer to the bottom of a 9- × 13-inch casserole dish and set aside.

Increase the heat under the skillet to medium-high and melt the remaining butter. Add the broccoli, season with ½ teaspoon salt and ¼ teaspoon pepper, and cook until crisp-

tender, about 5 minutes. Layer the broccoli over the chicken.

Add the mushrooms, onion, and garlic to the skillet and sauté for 5 minutes. Add the heavy cream, parsley, 2 teaspoons salt, and 1 teaspoon pepper and stir to combine. Pour the cream mixture over the chicken and broccoli, then top with the shredded cheese.

Bake on the middle rack of the oven until the cheese is bubbly and golden, about 15 minutes. Serve immediately.

Macronutrient Information

Total calories: 714

Fat: 54 grams / 486 calories

Carbs: 12 grams / 48 calories

Protein: 45 grams / 180 calories

Cauliflower Fried Rice with Eggs

2 servings

Prep time: 10 minutes

Cooking time: 15 minutes

As you experience the bold flavors of fresh ginger, sesame oil, coconut aminos, and cilantro, you won't be missing regular old rice (and its blood-sugar spike!) for one second.

- 4 tablespoons butter, divided
- 2 ounces fresh mushrooms, diced
- 1 small onion, diced
- 2 garlic cloves, minced
- 1 teaspoon grated fresh ginger
- 1 carrot, diced
- 1 cup fresh broccoli florets, cut into small pieces
- 4 large pastured eggs, beaten
- Salt and pepper to taste
- 1 (16-ounce) bag frozen cauliflower rice
- 1 tablespoon toasted sesame oil
- 2 tablespoons coconut aminos
- 1 teaspoon everything bagel seasoning
- ½ cup chopped fresh cilantro leaves
- ¼ cup thinly sliced scallions
- Chili garlic sauce for serving

In a large skillet, melt 2 tablespoons of the butter. Add the mushrooms and cook over medium heat until golden brown. Add the onion, garlic, ginger, carrot, and broccoli. Increase the

heat to medium-high and sauté until the vegetables are crisp-tender, about 4 minutes.

Make a well in the middle of the vegetables and add the remaining 2 tablespoons butter. Pour the eggs into the well, season with salt and pepper, and cook until the eggs are scrambled, stirring occasionally.

Add the cauliflower rice, sesame oil, coconut aminos, and bagel seasoning. Toss to combine. Taste and adjust seasoning, then garnish with the cilantro and scallions and serve with chili garlic sauce.

Macronutrient Information

Total calories: 540

Fat: 40 grams / 360 calories

Carbs: 26 grams / 104 calories

Protein: 19 grams / 76 calories

Meat Lover's Pizza Skillet

2 servings

Prep time: 8 minutes

Cooking time: 20 minutes

The big, bold flavors of Italian sausage and pepperoni are topped with sweet and creamy mozzarella cheese and vegetables. Enjoy the distinct flavors of your favorite veggie pizza, but without the bloating and sugar crash!

1 pound bulk Italian sausage

¼ cup extra-virgin olive oil

2 cups fresh cauliflower florets

1 green bell pepper, seeded and cut into large dice

8 tablespoons tomato paste

4 ounces fresh mushrooms, sliced

½ small red onion, thinly sliced

2 garlic cloves, minced

1 teaspoon Italian seasoning

½ teaspoon salt

½ teaspoon pepper

4 ounces uncured pepperoni

1 cup shredded mozzarella cheese

¼ cup grated Parmesan cheese

¼ cup chopped fresh basil

Preheat the broiler to its highest setting.

In a large ovenproof skillet over medium-high heat, sauté the sausage until cooked through, then transfer to a bowl.

In the same skillet, heat the olive oil over medium-high heat, then add the cauliflower, bell pepper, tomato paste, mushrooms, red onion, garlic, Italian seasoning, salt, and pepper. Cook for 6 minutes, then add the cooked sausage and pepperoni. Top with the mozzarella and Parmesan.

Transfer the skillet to the middle rack of the oven and broil until the cheese is bubbly and golden, about 5 minutes. Remove from the oven, garnish with the basil, and serve hot.

Macronutrient Information

Total calories: 1,367

Fat: 111 grams / 999 calories

Carbs: 30 grams / 120 calories

Protein: 62 grams / 248 calories

Broccoli and Bacon Slaw

2 servings

Prep time: 5 minutes

Cooking time: 10 minutes

Slaw doesn't have to mean just cabbage. This recipe uses broccoli and packs a big nutritional punch. Combined with fatty, salty bacon and bright lemon and apple cider vinegar, this dish is a flavor odyssey in your mouth.

1 cup avocado oil–based mayonnaise, such as
Primal Kitchen Mayo

1 tablespoon minced red onion

Zest and juice of ½ lemon

¼ cup apple cider vinegar

1 teaspoon salt

½ teaspoon pepper

4 cups fresh broccoli florets, cut into bite-size pieces

8 slices uncured bacon, cooked and chopped

½ cup roasted pepitas

In a large bowl, whisk together the mayonnaise, onion, lemon zest and juice, vinegar, salt, and pepper. Add the broccoli, chopped bacon, and pepitas and combine thoroughly. Chill or serve at room temperature.

Macronutrient Information

Total calories: 1,270

Fat: 122 grams / 1,098 calories

Carbs: 19 grams / 76 calories

Protein: 24 grams / 96 calories

Sesame-Ginger Chicken and Vegetable Stir-Fry

2 servings

Prep time: 10 minutes

Cooking time: 15 minutes

Want a super-satisfying meal super fast? Try this stir-fry with a bunch of green vegetables, fatty chicken thighs, and Asian-inspired seasonings. This is wonderful enjoyed on its own as well as on a bed of cauliflower rice.

2 tablespoons butter or ghee

4 boneless, skinless chicken thighs, cut into 1-inch cubes

2 tablespoons avocado oil

1 small onion, diced

4 garlic cloves, minced

2 teaspoons grated fresh ginger

1 cup fresh broccoli florets, cut into bite-size pieces

1 carrot, cut into ¼-inch slices

2 stalks celery, cut into bite-size pieces

½ small head green cabbage, chopped

¼ cup coconut aminos

1 tablespoon toasted sesame oil

1 teaspoon Yai's Thai Chili Garlic Hot Sauce

1 teaspoon sesame seeds

½ cup chopped fresh cilantro leaves

½ cup thinly sliced scallions

In a large skillet over medium heat, melt the butter. Sauté

the chicken until cooked through. Transfer to a plate and set aside.

In the same skillet, heat the avocado oil over medium-high heat. Add the onion, garlic, ginger, broccoli, carrot, celery, and cabbage and cook for 4 minutes, stirring occasionally. Return the chicken to the skillet, then add the coconut aminos, sesame oil, chili garlic sauce, and sesame seeds. Toss to coat and cook 2 more minutes.

Serve garnished with cilantro and scallions and additional spice on the side, if desired.

Macronutrient Information

Total calories: 682

Fat: 42 grams / 378 calories

Carbs: 32 grams / 128 calories

Protein: 44 grams / 176 calories

Jalapeño Chicken Bake

2 servings

Prep time: 10 minutes

Cooking time: 20 minutes

This adds a new dimension of flavor to an old favorite with the creative combination of chicken thighs, bacon, vegetables, and cream cheese. If you want the poppers to be less spicy, simply use jarred pickled jalapeños instead of fresh.

2 cups fresh spinach leaves

4 boneless, skinless chicken thighs, cut into 1-inch cubes

4 ounces fresh mushrooms, diced

1 small zucchini, diced

8 ounces uncured bacon, cooked and chopped

1 teaspoon salt

½ teaspoon pepper

4 ounces full-fat cream cheese, softened

4 ounces goat cheese, crumbled

2 jalapeño peppers, seeded and minced

1 teaspoon minced garlic

2 scallions, thinly sliced

Preheat the oven to 425°F.

In an 8- × 8-inch baking dish, layer the spinach, followed by the chicken, mushrooms, zucchini, and bacon. Season with salt and pepper.

In a medium bowl, combine the cream cheese, goat cheese, jalapeños, garlic, and scallions. Drop the cheese mixture in

small dollops over the chicken and vegetables and bake for 20 minutes, or until lightly browned. Serve hot.

Macronutrient Information

Total calories: 643

Fat: 35 grams / 315 calories

Carbs: 12 grams / 48 calories

Protein: 70 grams / 280 calories

Acknowledgments

Today, our constant access to information can be overwhelming and confusing, often catering to short attention spans and featuring salacious, lowest-common-denominator messaging. These days, a book is a special production, requiring an incredible level of research, strategic planning, team contribution, and methodical revision and fine-tuning. This end product is designed to stand proudly on your bookshelf as a helpful resource for years to come. Thanks are due to everyone on the team who contributed to it, but I also want to acknowledge you, the reader, for your commitment to healthful living. We wish you the best in your pursuit of living awesome!

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About the Authors

Mark Sisson is widely regarded as a founding father of the ancestral health movement. A former world-class athlete in the marathon and the Ironman Triathlon, he presides over a wide-ranging Primal enterprise, featuring the Primal Kitchen line of healthy condiments, dressings, and sauces, the Primal Health Coach Institute, a line of premium performance and nutritional supplements, and numerous books and online educational courses. He publishes daily tips and inspiration at MarksDailyApple.com, the top-ranked blog in its category for the past fifteen years. Mark lives in Miami Beach, Florida, with his wife, Carrie, where he standup paddleboards the inland waterways, plays Ultimate Frisbee against hotshots half his age, and enjoys his new role as a grandfather.

Brad Kearns is Mark Sisson's longtime coauthor, host of the B.rad podcast, and an elite masters athlete. He broke the Guinness World Record in Speedgolf at age 53, is a #1 USA-ranked age 55-59 high jumper and a former US national champion and #3 world-ranked professional triathlete. Brad lives in Lake Tahoe, Nevada, with his wife, Elizabeth, and enjoys a daily cold plunge in the lake year-round.

Resources and Suggested Reading

Books

- 8 Steps to a Pain-Free Back*, by Esther Gokhale, LAc
- Adrenaline Dominance*, by Michael E. Platt, MD
- The Art and Science of Low Carbohydrate Performance*,
by Jeff Volek, PhD, and Stephen D. Phinney, MD, PhD
- Becoming Supernatural*, by Dr. Joe Dispenza
- Becoming a Supple Leopard*, by Dr. Kelly Starrett
- The Big Book of Endurance Training and Racing*, by Dr.
Philip Maffetone
- The Big Leap*, by Gay Hendricks
- The Biology of Belief*, by Bruce H. Lipton, PhD
- The Bordeaux Kitchen*, by Tania Teschke
- The Carnivore Code*, by Paul Saladino, MD
- Carnivore Cooking for Cool Dudes*, by Brad Kearns, Brian
McAndrew, and William Shewfelt
- The Carnivore Diet*, by Shawn Baker, MD
- The Case Against Sugar*, by Gary Taubes
- Chicken Soup for the Soul*, by Jack Canfield
- The Circadian Code*, by Satchin Panda, PhD
- Death by Food Pyramid*, by Denise Minger
- Deep Nutrition*, by Catherine Shanahan, MD
- The Diabetes Code*, by Jason Fung, MD
- Don't Just Sit There*, by Katy Bowman

Eat to Live, by Joel Fuhrman, MD

*Everything is F*cked*, by Mark Manson

Fast Food Nation, by Eric Schlosser

Fat Chance, by Robert H. Lustig, MD

Fat for Fuel, by Dr. Joseph Mercola

The Fatburn Fix, by Catherine Shanahan, MD

Food Politics, by Marion Nestle

Good Calories, Bad Calories, by Gary Taubes

Grain Brain, by David Perlmutter, MD

Gratitude Works!, by Robert A. Emmons

The Hacking of the American Mind, by Robert H. Lustig, MD

The Harvard Medical School Guide to Tai Chi, by Peter M. Wayne, PhD

The Hidden Plague, by Tara Grant

The Imperative Habit, by Dave Rossi

Keto Cooking for Cool Dudes, by Brad Kearns and Brian McAndrew

Keto Diet, by Dr. Josh Axe

Keto for Women, by Leanne Vogel

The Keto Reset Diet, by Mark Sisson with Brad Kearns

The Keto Reset Diet Cookbook, by Mark Sisson with Lindsay Taylor, PhD

The Keto Reset Instant Pot Cookbook, by Mark Sisson with Lindsay Taylor, PhD, and Layla McGowan

Lights Out, by T. S. Wiley with Bent Formby, PhD

The Longevity Paradox, by Steven R. Gundry, MD

Lore of Nutrition, by Tim Noakes and Marika Sboros

Lore of Running, by Tim Noakes, MD

Men Are from Mars, Women Are from Venus, by John Gray, PhD

Move Your DNA, by Katy Bowman

The New Evolution Diet, by Arthur De Vany, PhD

NurtureShock, by Po Bronson and Ashley Merryman

The Obesity Code, by Jason Fung, MD

The Overfat Pandemic, by Dr. Philip Maffetone

The Paleo Diet, by Loren Cordain, PhD

Paleo Happy Hour, by Kelly Milton

Perfect Health Diet, by Paul Jaminet, PhD, and Shou-Ching Jaminet, PhD

The Plant Paradox, by Steven R. Gundry, MD

The Primal Blueprint, by Mark Sisson

The Real Meal Revolution, by Professor Tim Noakes, Jonno Proudfoot, and Sally-Ann Creed

The Sleep Revolution, by Arianna Huffington

The South Asian Health Solution, by Ronesh Sinha, MD

*The Subtle Art of Not Giving a F*ck*, by Mark Manson

Take a Nap! Change Your Life, by Sara C. Mednick, PhD

Wanderlust, by Rebecca Solnit

Way of the Peaceful Warrior, by Dan Millman

Wheat Belly, by William Davis, MD

Why We Get Fat, by Gary Taubes

You: The Owner's Manual, by Michael F. Roizen, MD, and Mehmet C. Oz, MD

Websites

TwoMealsADayBook.com (contains hyperlinks for all the books, websites, videos, and shopping resources mentioned here; a comprehensive list of research links,

including videos, interviews, health journalism, news reports, and scholarly articles; plus bonus content and e-book downloads)

8WeeksOut.com (Joel Jamieson—MMA trainer, recovery, and HRV expert)

AncestralSupplements.com/about-us (Brian “Liver King” Johnson—ancestral living tips and inspiration)

AndreObradovic.com (Australian life and endurance training coach)

BenGreenfieldFitness.com (biohacker, podcast host, elite adventure athlete, and bestselling author of *Boundless*)

BradKearns.com (*Two Meals a Day* coauthor, podcast host, elite athlete)

CarnivoreMD.com (Dr. Paul Saladino, carnivore leader and author of *The Carnivore Code*)

ClevelandClinic.org/Roizen (Dr. Michael Roizen, coauthor of *You: The Owner’s Manual*)

CraigMarker.com (strength and conditioning coach and antianxiety expert)

CulturalHealthSolutions.com (Dr. Ronesh Sinha, author of *The South Asian Health Solution*)

DeepakChopra.com (physician and megabestselling author of *Ageless Body, Timeless Mind*)

DeniseMinger.com (blogger, author, conventional wisdom skeptic)

DietDoctor.com (Dr. Jason Fung—insulin, obesity, and diabetes expert)

DoctorJKrauseND.com (Dr. Jannine Krause—naturopathic doctor, acupuncturist, podcast host)

DoctorOz.com (Dr. Mehmet Oz, bestselling author and TV personality)

DrAxe.com (Dr. Josh Axe, health author, natural medicine

physician)

DrCate.com (Dr. Catherine Shanahan, NBA diet consultant and bestselling author of *Deep Nutrition*)

DrDaphne.com (Dr. Daphne Miller, integrative physician and advocate of nature-based healing)

DrFuhrman.com (Dr. Joel Fuhrman, bestselling author of *Eat to Live*)

DrGundry.com (Dr. Steven Gundry, bestselling author of *The Plant Paradox*)

DrJoeDispenza.com (neuroscientist, author, peak-performance expert)

DrPerlmutter.com (Dr. David Perlmutter, bestselling author of *Grain Brain*)

DrRagnar.com (Dr. Tommy Ragnar Wood, ancestral health expert and pediatrics researcher)

DrWeil.com (Dr. Andrew Weil, bestselling author and natural-medicine expert)

ElleRuss.com (podcast host and bestselling author of *The Paleo Thyroid Solution*)

EvolutionaryAnthropology.duke.edu/people/Herman-Pontzer (Dr. Herman Pontzer, TEE expert)

FacultativeCarnivore.com (Amber O’Hearn, carnivore-diet advocate)

FoodPolitics.com (Dr. Marion Nestle—bestselling author, researcher, and antipropaganda advocate)

GaryTaubes.com (science journalist and bestselling author of *Good Calories, Bad Calories*, *Why We Get Fat*, and *The Case Against Sugar*)

GokhaleMethod.com (Esther Gokhale—bestselling author of *8 Steps to a Pain-Free Back*; posture correction and back-pain-relief expert)

Gottman.com (Dr. John Gottman, relationship expert and

bestselling author of *The Seven Principles for Making Marriage Work*)

HealthfulPursuit.com (Leanne Vogel, podcast host and bestselling author of *The Keto Diet*)

Instagram.com/TheUsefulDish (Dr. Lindsay Taylor, social psychologist and coauthor of *The Keto Reset Diet Cookbook* and *Keto Passport*)

JackCanfield.com (bestselling author of the Chicken Soup franchise; peak-performance and self-empowerment expert)

JackKruse.com (neurosurgeon, biohacker, and expert in circadian rhythms)

KetoGains.com (Luis Villasenor—bodybuilder; founder of ketogenic-diet and coaching service)

MarksDailyApple.com (my number-one-ranked ancestral-living blog, home of the Primal Blueprint lifestyle; contains extensive library of articles, success stories, and free e-book downloads)

MarksDailyApple.com/keto/keto-results/Brian-McAndrew (Brian McAndrew's body-transformation story)

MarksDailyApple.com/ancestral-resting-positions (contains my research with Matt Wallden)

Mercola.com (Dr. Joe Mercola, alternative-health leader and bestselling author of *Fat for Fuel*)

MichaelMerzenich.com (brain plasticity expert and author of *Soft-Wired*)

MichaelPollan.com (health journalist and bestselling author of *The Omnivore's Dilemma*)

MyCircadianClock.org (Dr. Satchin Panda's time-restricted feeding app and research)

PaulJaminet.com (astrophysicist and ancestral diet expert, coauthor of *Perfect Health Diet*)

PerfectHealthDiet.com (Shou-Ching Jaminet—molecular biologist, cancer researcher, coauthor of *Perfect Health Diet*)

PeterAttiaMD.com (surgeon, podcast host, longevity expert, biohacker, self-experimenter, and extreme endurance athlete)

PhilMaffetone.com (chiropractor, endurance-training expert, bestselling author of *The Big Book of Endurance Training and Racing*)

PlattWellness.com (Dr. Michael Platt, expert in bioidentical hormone therapy and author of *Adrenaline Dominance*)

RobertLustig.com (antisugar crusader and bestselling author of *The Hacking of the American Mind*)

SaraMednick.com (University of California at Riverside psychology professor and author of *Take a Nap! Change Your Life*)

Shawn-Baker.com (orthopedic surgeon, carnivore-diet leader, world-record-setting masters rowing athlete, founder of MeatRx.com)

TheNoakesFoundation.org (Dr. Timothy Noakes, preeminent endurance exercise physiologist, bestselling author of *Lore of Running* and *Lore of Nutrition*)

ThePaleoDiet.com (Dr. Loren Cordain, health and exercise science professor, Paleo researcher, bestselling author of *The Paleo Diet*)

TheReadyState.com (Dr. Kelly Starrett, CrossFit coach, physical therapist, bestselling author of *Becoming a Supple Leopard*)

TonyRobbins.com (motivational speaker, peak-performance expert, bestselling author of *Awaken the Giant Within*)

UsainBolt.com (retired Jamaican world champion, Olympic gold medalist, and world-record sprinter)

Verkhoshansky.com (the late Dr. Yuri Verkhoshansky, Russian-American plyometric training expert)

VirtaHealth.com (Dr. Jeff Volek, ketogenic-diet researcher and bestselling author of *The Art and Science of Low Carbohydrate Living*)

WestonAPrice.org (Weston A. Price Foundation, a leading resource for the global study of the diet and health habits of indigenous peoples)

WheatBelly.com (Dr. William Davis, cardiologist and bestselling author of *Wheat Belly*)

WimHofMethod.com (Wim Hof, a.k.a. the Iceman, Dutch record-setting endurance and cold-exposure athlete)

ZachBitter.com (podcast host, endurance coach, and world-record one-hundred-mile ultramarathon runner)

YouTube Videos

Use these search terms:

Brad Kearns—Chest Freezer Cold Water Therapy

Brad Kearns—Dynamic Stretching Routine to Start Your Day

Brad Kearns—How to Do a Sprint Workout the Right Way

Brad Kearns—Morning Routine

Brad Kearns—Preworkout Dynamic Stretching Routine

Brad Kearns—Running Form: Correct Technique and Tips to Avoid Injury

Brad Kearns—Running Technique Drills: Beginners

Brad Kearns—Running Technique Drills: Advanced

Fillet-Oh!-Fish [fish farm industry exposé]

Get Over Yourself Podcast—Dude Spellings

Get Over Yourself Podcast—The Ultimate Mark Sisson Interview

Hatha Yoga for Beginners

The Great Dance—A Hunter’s Story [!Kung bush people persistence hunt]

Jeanne Calment Interview [world’s longest-lived human at 122 years]

Joe Rogan—Mark Sisson Interview

Mark Sisson—Amazing Keto and Fasting Facts

Mark Sisson—Archetypal Rest Postures

Mark Sisson—BASS (Bigass Steak Salad)

Mark Sisson—A Day in the Life

Mark Sisson—Keto Roundtable: Metabolic Flexibility and the Human “Closed Loop” System

Mark Sisson—Micro Workouts How-To and Benefits

Mark Sisson on Health Theory [why the keto diet will change your life]

Mark Sisson—Primal Essential Movements

Mark Sisson—Sprinting Workout

Mark Sisson—What Is Intermittent Fasting?

Pilates at Home for Beginners

Restorative Yoga for Beginners

Tai Chi for Beginners

Yoga Sun Salutations

Internet Shopping Resources

AncestralSupplements.com (100 percent grass-fed animal organ supplements)

Askinosie.com (dark chocolate)

ButcherBox.com (sustainable animal foods; home delivery club)

ChiliTechnology.com (chiliPAD mattress cooler)

CoracaoConfections.com (dark chocolate)

CreoChocolate.com (dark chocolate)

DryFarmWines.com (sugar-free, chemical-free wines; home delivery club)

Evolution-Athletic.com (resistance bands)

HuKitchen.com (dark chocolate)

IrisTech.co (screen color-temperature-optimizing software)

JaquishBiomedical.com (X3 Bar home strength-training device)

JustGetFlux.com (screen color-temperature-optimizing software)

KellerManniChocolate.com (dark chocolate)

LillieBelleFarms.com (dark chocolate)

LoneMountainWagyu.com (100 percent purebred, grass-fed Wagyu beef)

MeatRx.com (carnivore diet community and educational programming)

NzCordz.com (StretchCordz and other resistance-training bands)

PerformBetter.com (mini bands)

RAOptics.com (fashionable blue light-blocking eyewear)

TazaChocolate.com (dark chocolate)

ThriveMarket.com (healthful organic foods with online discount)

VariDesk.com (stand-up desks and creative office furniture)

VitalChoice.com (wild-caught seafood with home delivery)

WildIdeaBuffalo.com (grass-fed, naturally raised buffalo from the Great Plains)