

CALISTHENICS FOR BEGINNERS

The Beginner's Guide
to Strength Training Through
Calisthenic Workouts



JOSH MILLER

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Josh Miller

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Introduction

Are These *Your* Concerns?

Do you want to build up your muscles and become stronger, but don't know *how* , or even *where* to begin? Are you concerned about your health, and have read that exercise can help you live longer, better, and healthier? Are you hoping to increase stamina and flexibility, and improve your self-esteem? Are you trying to manage your weight? Do you believe that a strength-building exercise routine can burn fat and build muscle, and get your weight into the normal range? Are you self-conscious and want to raise your self-esteem?

Do you see people working out in gyms and fitness centers, lifting weights and pulling cables on machines, but are you wondering, "Is there a better way"?

Calisthenics: The Better Way

Fortunately, there is a better way for you to grow stronger, with bigger, better-defined muscles, less body fat and a better way to attain excellent physical condition. It's calisthenics, the natural, safer way to use your bodyweight to provide all the resistance you need to achieve your muscle and strength-building goals.

If you are new to exercise and fitness, this book will enable you to become competent in calisthenics and achieve high levels of strength and physical fitness. I have written this book to guide beginners through the basic exercises and show the progressions for workouts that may be hard to do when starting. You will be guided with a routine for beginners, and you will progress to more intermediate and advanced routines, when you are ready.

Why Calisthenics Will Work for You

Building muscles and gaining strength requires resistance exercises, practiced correctly and regularly. While most people may think of weightlifting as the way to build big muscles, many of the finest athletes, with the most impressive physiques, use calisthenics and rely on their bodyweight for resistance. If you have ever admired an Olympic gymnast's build, with well-defined muscles, you can be confident that the gymnast achieved it through calisthenics, not weightlifting. You can be sure that your investment of time and effort in calisthenics will reward you with greater strength and fitness, all without dumbbells, barbells, kettle weights, and complicated machines. You can expect additional benefits from a steady calisthenics routine, including improved balance, stamina, and flexibility.

Calisthenics avoid most muscle and joint injuries that can be caused by lifting heavy weights and by working out with complicated machines. People from all age groups 15+ can do these exercises, which give you control over your body while safely and effectively making you stronger, healthier and more physically fit.

Proof of Benefits

According to WebMD (2020), while calisthenics have been around for a long time, they are making a comeback in workout choices worldwide because they are effective, yet relatively easy to learn and perform. Unlike weightlifting, you do not need to join a gym or fitness center, and there's no need to purchase equipment, except for a few optional items (like a pull-up bar), since you can perform almost all calisthenics exercises at home. Another advantage of calisthenics is the quality and functionality of the physique you will attain: muscular, but not over-bulked and muscle-bound; strong, but without having endured a string of injuries, since calisthenics use only your bodyweight and are far less likely to cause pulls and strains.

A 2017 study on the effects of calisthenics training on strength, body composition and posture by the University of Palermo's Sport and Exercise Sciences Research team in Italy

found that calisthenics training is an effective and viable training solution to improve posture, strength, and body composition, without the use of any weight-training equipment.

A Credible Exercise

Muscles grow larger and stronger by the process of rebuilding muscle fibers and cells that are challenged and damaged (at the microscopic level) by resistance exercises. The needed resistance is entirely provided by performing a series of basic calisthenics movements. The science supporting this is solid, but you can appreciate the effects by imagining how much of your weight you are lifting. For example, even if you weigh just 90 lbs, with each pull-up, you are lifting 90 lbs. Impressive!

Unlike many weightlifting exercises, a single calisthenics exercise can work multiple muscle groups simultaneously. For example, when the familiar push up is performed correctly, it provides good muscle-challenging resistances to arms, shoulders, the chest, and the main core group of muscles—abdominals, sides, and the upper and lower back. This book will teach you how to correctly and safely perform each calisthenics exercise for optimal results.

There are benefits for beginners in calisthenics who can only perform a limited number of repetitions, or “reps.” These benefits include an increase in strength, and muscle tone, which is that good feeling as muscles are ‘pumped up’ after exercise. In time, as the number of reps increases and you can do more sets of reps, strength further increases, as does endurance. Within a short time, you will see your muscles increasing in size and showing more definition.

Another benefit of calisthenics is weight-management: after a 30-minute workout, conducted at a *steady pace*, you can burn more than one calorie for every pound of bodyweight. So if you weigh 155 pounds, you will burn 167 calories. If you do *vigorous* calisthenics for half an hour, you can burn 298 calories, nearly two for every pound that you weigh, as well as

gaining cardiovascular conditioning benefits, contributing to heart health.

A Promise to You

You can do this. Follow the instructions and routines in this book, and calisthenics will begin to show positive results soon after you start. Even if you choose to start with a light routine, you will feel more robust, with more muscle tone and improved flexibility. You will also feel increased stamina and energy and will develop an improved sense of self-esteem. Once you begin calisthenics, you will be comfortable gradually increasing the number of repetitions and the range of movements. The progress you are making will encourage you to do more and get more from each workout. There is no expensive equipment to buy, no gym memberships required, and no need to go anywhere since you can perform your bodyweight calisthenics routine in the comfort of your home.

It's Your Decision

Let this book be your call to action. It will get you started immediately with a limited number of calisthenics exercises that you can learn and start immediately. Over time, you will be shown how to expand the range and intensity of your workouts so that your progress is continuous and your muscle-building and strength gains are consistent. You will also learn how to manage your diet with the right foods and supplements to optimize your bodybuilding results and keep you healthy. The combination of diet and exercise can help prevent obesity, diabetes, and heart disease. You'll be able to see through all the diet and supplement misinformation and be able to make informed choices.

Ready? Let's get started. Chapter 1 explores everything a beginner needs to know about calisthenics.

Chapter 1: Everything a Beginner Needs to Know

The objective of this chapter is to give you a solid grounding in the science and practice of calisthenics. It builds on the brief orientation you read in the Introduction. When you complete this chapter, you will be ready to get started with the beginners' exercises, fully aware of why you are doing the exercises as prescribed.

If there is a single overriding recommendation that will help you build your strength and muscles in the shortest time successfully, and with minimal risks of injury, it is to perform the exercises in the form and pace that are recommended. Try to do as many exercises as possible in front of a mirror, especially during the early learning stages. The idea is to make correctly performed calisthenics exercises a habit. We'll cover this in greater detail in the section below on consistency.

What are Calisthenics?

Wikipedia (2020) defines calisthenics as exercise movements that are performed with minimal or no equipment, depending instead on bodyweight for resistance, and working one or more large motor groups, intended to increase fitness, strength, flexibility, muscle mass and overall condition. Calisthenics have a very long history, going back more than 2,000 years to ancient Greece, where it was practiced for fitness by the armies of Sparta and Alexander the Great. The word is a combination of the Greek '*kalós*' meaning beautiful or perfection, and "*sténos*," which we can interpret to mean strength, courage and determination. The Greeks are believed to be the first to utilize one's bodyweight for resistance to build muscles and strength.

More recent history. The practice of calisthenics was brought to America in the 19th century, where it was popularized as an

easily accessible form of fitness training for both men and women. During the first half of the 20th century, calisthenics gradually faded as a widespread form of exercise as competitive team sports and weightlifting rose in popularity. But in the 1960s, a calisthenics training program was published by the Royal Canadian Air Force, which helped relaunch calisthenics as a serious alternative to other resistance exercises, like weightlifting.

Calisthenics today. The practice of calisthenics is defined by its range of exercises and movements that depend on using bodyweight for resistance. Added weights are generally not used for resistance, although advanced calisthenics exercises may employ weights to increase the resistance. For example, wearing a weighted belt to make pull ups, chin ups, squats, or dips harder.

The increasing popularity of calisthenics is leading to installations around the world of calisthenics parks, which are outdoor locations with chin up bars, parallel bars for dip exercises, and boxes to jump on. There may also be benches and inclines where push ups and planks are performed. One more recent evolution is a rising international sport, “Street Workout,” which is a sort of gymnastics competition, performed before a panel of judges.

Cooperative calisthenics, also called partner bodyweight exercises, involve two or more participants working with each other to perform certain calisthenics exercises. In most cases, one person performs an exercise while the partner adds resistance. Extreme examples include doing push ups with the partner sitting on the person’s back, or doing squats (leg exercises) with the partner pressing down on the shoulders; in both examples, the partner makes it much harder for the person to push back up.

How Your Body Builds Muscle

The rebuilding of hypertrophy. Resistance exercise, when done with a sufficient amount of counterforce or tension and for an adequate number of repetitions, causes a breaking down

of the cells and fibers in the muscles that you work on. Automatically, the body directs proteins to the muscles to repair the micro-tear damage, and in doing so, tends to build slightly more tissue than was there before. While the incremental muscle cells might be intangible on a single day, over weeks, months, and years, this process of cellular damage and rebuilding, known scientifically as *hypertrophy*, adds up as greater muscle mass, as well as greater strength.

Since muscles are made of protein, and additional protein is needed to rebuild the muscle fibers, it is essential to have a sufficient amount of protein in your diet. There's no need to go to extremes, but your protein intake will probably need to be at a higher than average level. We'll cover this in chapter 5.

The importance of rest. Notably, the rebuilding of muscle cell damage can occur only during rest times, when you are not working the muscles. This fact is why the routines you will be following allow each muscle group some rest and recovery days. A rule of muscle building is to never work the same muscle groups on consecutive days. The U.S. Department of Health and Human Services recommends that adults perform resistance exercises of moderate or high intensity to strengthen muscles a minimum of two times a week. This is in recognition of the need to balance the need to work the muscles with regularity, with the need for rest to allow hypertrophy to do its rebuilding work.

Why Calisthenics Instead of Weight Training

It's the resistance that counts. If you think about it, your muscles don't know whether they are lifting cast iron dumbbells or the weight of your body, so there is no reason to expect weightlifting to be more productive than bodyweight calisthenics. Your muscles don't care about the type of weight you're lifting or pulling, as long as the resistance is sufficiently challenging and repetitive. The International Sports Sciences Association (ISSA) says that a person's

weight can enable the performance of a resistance workout as effective as working out with free weights or weight machines.

Calisthenics can create muscle mass as effectively as weightlifting if you follow the recommended progressions. Begin with what you can do, then raise the tension and muscular stress as you continue your training. When you start out, your levels of resistance and muscular tension will be moderate. Still, you will need to gradually increase the resistance, repetitions, and pacing so that your muscles are continually challenged. For example, you might do 10 leg raises and 10 squats, rest for a minute, then repeat with another set of 10 reps; but a month later, you may need to perform three sets of 15 or 20 reps. You will be able to fine-tune the workouts based on your ability.

It is crucial to work at a slower pace and concentrate on your form to achieve your full potential of muscle mass, strength, and endurance with calisthenics.

Reduced risk of injury. Safety is another advantage of calisthenics compared to weightlifting: According to the University of Arizona's College of Agriculture & Life Sciences (2015), bodyweight calisthenics exercises are safe for virtually everyone to perform, and impose minimal risks of injury. Lifting free weights, in comparison, can lead to muscle and tendon pulls and tears, as well as joint injuries: unlike bodyweight exercises, which are limited to your weight, free weights and weight machines can cause you to overlift or exceed your capacity. There is also the risk of dropping a dumbbell or kettle weight on your foot, or allowing a barbell to come down hard on your chest.

No equipment to buy; no clubs to join . With few small exceptions (see the following paragraph), you do not have to spend hundreds or thousands of dollars on weightlifting equipment, nor do you have to find space for it in your home. No dumbbells, barbells, kettle weights, or elaborate machines are needed. Further, to practice calisthenics, you do not need to join a gym or health club since you can perform all the bodyweight calisthenics in the comfort and privacy of your home. This also allows you greater flexibility in scheduling

your workouts; there are no fitness classes or trainer's schedules to worry about.

Additional Calisthenics Benefits

Comprehensive benefits. Calisthenics can provide the benefits of muscular and aerobic conditioning and improve psychomotor skills such as balance, agility, flexibility and coordination. As far as muscular development goes, to sum up some key benefits that you have already seen in the previous sections:

- Calisthenics provide all the resistance needed to achieve lean muscle mass, definition, and strength, with the advantage of being virtually injury-free, mostly or entirely independent of equipment, and able to be performed in your home, or outdoors, or just about anywhere.

Aerobic conditioning. Cardiovascular conditioning is a separate form of exercise, which we'll cover in a later paragraph. However, when you conduct your calisthenics workout at a vigorous pace and raise your heartbeat sufficiently and sustain it for 30 minutes, you will accumulate cardiovascular benefits. You may be advised to do separate aerobic exercises several times a week. Still, any cardio benefits you gain while doing calisthenics exercises at a brisk pace will add to the heart health benefits.

Avoiding obesity. Another benefit of calisthenics is weight-management, as we touched on briefly in the Introduction. After a 30-minute workout, conducted at a *steady pace*, you can burn more than one calorie for every pound of bodyweight:

- If you weigh 125 lbs, you will burn 135 calories.
- If you weigh 155 pounds, you will burn 167 calories.
- If you weigh 200 pounds, you will burn 200 calories.

If you do *vigorous* calisthenics for half an hour, you can burn nearly two calories for every pound that you weigh, as well as getting cardiovascular conditioning benefits:

- If you weigh 125 pounds, you will burn 240 calories.
- If you weigh 155 pounds, you will burn 298 calories.
- If you weigh 200 pounds, you will burn 355 calories.

Here's why calisthenics are so effective in helping to maintain a healthy weight and to help prevent obesity:

- According to the International Sports Sciences Association (ISSA), strength training, like bodyweight calisthenics, burns calories by raising your metabolism, the body's chemical process of using and burning calories. The more lean muscle you have, the more calories you will burn, even when the body is at rest; this is a function of the BMR, or basal metabolic rate. The greater your lean muscle mass, the more calories your BMR can burn while you are at rest, even when you are asleep.
- Also, after a good calisthenics workout, your BMR remains elevated, and your body continues to burn calories at a higher rate for hours (unlike an aerobics workout, like running or cycling, which stops burning calories soon after the exercise stops).

Equipment You Might Need

Chin up/pull up bar. Okay, you've been reading that calisthenics use your bodyweight for resistance, and no equipment is needed, and that's pretty much true. But for a few exercises, you may want to purchase at least one piece of equipment: a pull up/chin up bar. It's inexpensive and can be installed easily in a doorway, without damage or the need for a permanent installation. You can pull the bar out of a closet, put it up in seconds. When you're done with chin ups and pull ups, the bar comes right down and goes back in the closet.

You may be able to use the same piece of equipment to perform push ups, and dips, which are exercises that enable you to vertically lower and raise your bodyweight between parallel bars or other structures. For dips, having parallel bars

or handles would be ideal, but in the next chapter you will be told how to do dips at home without additional equipment.

The easiest way to see what's available is to use the online search term "chin up bar" (or "pull up bar") and you will find a wide range of chin up bars, with most costing from \$19.95 to \$39.95. Review the offers, and select one that can work for you. You may also find chin up/pull up bars in sporting goods stores and big box retailers like Target, Walmart, and Costco.

If you live (or work, or study) near a park or playground, you may be able to perform pull ups and dips on horizontal bars or other structures, like monkey bars.

In any case, plan to include chin ups, pull ups, and dips in your calisthenics workout routine because they are among the most important and productive of all the exercises.

Floor cushion. One other item you may need is a yoga mat or additional cushioning for exercises performed on the floor, especially on your back. But any carpeted floor will be okay, or you can use a folded blanket or several layers of large bath towels.

The Importance of Consistency

Doing it right. The effectiveness of your calisthenics workouts is dependent on performing each movement as instructed. In the following two chapters, you will learn how you should perform each exercise. It's important to pay close attention. You will read how to do chin ups and pull ups correctly, and will be shown the common mistakes that can diminish the quality of each movement. The same goes for all the other calisthenics exercises:

- Do you know how to do push ups the right way? There are specific ways to place your hands, how to lower, pause, and raise your body, how to maintain a straight back, and how to maximize the resistance of each muscle group. Every calisthenic exercise has its specific requirements, which you will learn.

- Another example: leg raises are great for strengthening your abdominal muscles, but there is a right way, for fullest effect, and for the added benefit of stretching the hamstrings so that you have greater flexibility.

Doing it on schedule. Your initial enthusiasm may get you going immediately, and you may plan to begin working out later today or first thing tomorrow. That's great; go for it. But it's key to keep to a scheduled routine, to keep the hypertrophy process going, with exercise followed by rest, and then followed by more exercise:

- *Too much rest* will reduce the benefits of increased muscle mass, and you may find yourself taking one step forward and two steps backward as the rebuilding of muscle fibers, cell-by-cell, slows, and may even stop.
- *Too little rest* can have even more significant negative consequences. Hard calisthenics workouts every day might seem like a good idea; more is better, right? Wrong! Without a day or two of rest, the hypertrophy repairs are unable to occur, and instead of building muscle, you are damaging your muscles increasingly .

What About Cardiovascular Training?

Medical professionals are united in their recommendations for all adults, male and female, in every age group, to participate in regular exercise, including both cardiovascular conditioning (aerobics), and resistance training. The resistance part of the equation is credited with improved physical strength and endurance, better balance, improved flexibility, stronger bones that resist breakage, and an overall enhanced sense of well-being.

Do calisthenics provide cardiovascular benefits? Resistance exercises can have a positive effect on heart and circulatory health. As mentioned above in the section on weight management, when a vigorous calisthenics routine is practiced for at least 30 minutes, and the pulse rate is sustained at an elevated level, cardiovascular benefits accrue. But there are limits:

- Most bodyweight calisthenics workouts are conducted at a more moderate pace because you are encouraged to exercise deliberately, slowly, maintaining good form and not racing through the movements.
- Further, you will see that there are rest periods of a minute or two between the sets of repetitions, which let your muscles recover for the next set, but which also slows down your heartbeat and reduces the aerobics' intensity.

Therefore, you are encouraged to engage in a cardiovascular exercise routine apart from calisthenics. You have a wide range of options: running or walking at a brisk pace indoors on a treadmill, or outdoors, cycling indoors (“spinning”) or outdoors on roads and trails, or by using elliptical machines, which simulate the arm and leg motions of cross-country (Nordic) skiing. Swimming is an excellent option if you have access to a pool where you can do laps. Yes, some options require access to a fitness center or gym. Still, you have free outdoor alternatives, including walking, which is injury-free and highly beneficial if you walk fast, getting your heartbeat up to an acceptable level:

A long-established guideline recommends working out following this heart rate formula: $220 \text{ minus your age times } 70\%$, so if you are 30, then $220 - 30 = 190 \times .70 = 133$ beats per minute. If you are 60, then it's 112 beats per minute. These are approximations, so keep within a range that does not feel strained. You should be able to hold a conversation while pacing along but probably not be able to sing. A good rule of thumb is to be breathing deeply but not gasping for breath.

You should try to do a total of 150 minutes of cardio training each week if your pace is moderate, or 75 minutes a week if your rate is intensive. Many of us prefer to do the cardio workout before resistance since it provides an excellent circulatory warmup.

Before starting a cardio training program, and if you haven't been in shape for a while, it's a good idea to see a doctor and have a physical exam before starting, especially if you are over the age of 40.

Problems and Solutions

You think you don't have the time for calisthenics or other exercises.

The key to finding the time for your workouts is to plan to get it done at the same time of day, whether you exercise two or three times a week or do some form of exercise every day. Many of us find that if we set aside 30, 40, or even 60 minutes before breakfast, lunch, or dinner, we'll get our workouts done consistently.

The secret is never to tell yourself you'll get to it later in the day because you probably won't: once you miss your regular time, especially if it's early in the day, you'll be making excuses, and it will slip away.

Another secret to get you going with the workout on days when you don't feel up to it is to think to yourself, "I'll just do a little bit today." You'll discover it will get you started, and once you get into it, you usually end up doing the full workout.

You find the beginning calisthenics harder to do than you expected.

Each of us begins the training at different levels of strength and physical condition, and you may find that some of the exercises are a bit tough at first. Chin ups and pull ups, for example, may take some practice, and you may be able to do a couple of push ups or leg raises or squats, but not as many as the schedule calls for. That's okay, do as many as you can without straining, and you can work up to the full amount in time. You should maintain good form, but if you can only do, say, halfway up with chin ups, do your best now, knowing you'll get there with practice. Remember, it's more important that you perform the calisthenics movements slowly, deliberately, keeping in correct form; don't race through trying to increase the reps. Fewer reps, done well, is better.

An alternative is to modify the exercise to reduce the weight. With weightlifting, you can shift down to a lighter dumbbell or other weight, but with calisthenics, you can't vary your

bodyweight. But you can lift less of your bodyweight by modifying your form. For example, do push ups on your knees instead of on your toes. Or doing squats as you hold onto a table or chair to reduce the load. You may have someone assist with chin ups and pull ups by holding your hips and pushing upward to provide some lift.

You worked out hard yesterday; what should you do today?

As you now know, rest is a critical factor in calisthenics and all forms of resistance training because muscle fibers damaged during workouts need time to perform the repairs that will rebuild and grow muscles. So you should never do the same exercises on consecutive days. But if you prefer shorter, more frequent calisthenics workouts, you may work the upper body (arms, shoulders, chest) on one day, and the lower body (core, quads, hamstrings, and calves) on the next day.

If you are also doing cardio workouts, you may do those every day, but you should follow hard aerobic conditioning days by less strenuous recovery days.

You feel pain when you perform certain calisthenics exercises.

You may have pulled or strained a muscle or ligament, and it is best to give it rest for a few days. If the pain begins during or just after a workout, put ice on the injured arm or shoulder or leg, rest and elevate the area if possible. While there may be some moderate pain or discomfort when you're doing the last couple of reps in a set, this is usually normal. The pain should subside as soon as you stop the exercise. It's the persistent pain that you need to look out for. If it continues to bother you after a week and does not seem to be getting better, it's a good idea to see a doctor and get it checked out.

You are easily distracted during your calisthenics workouts.

Concentration and focus are essential if you are to gain the optimal benefits from each round of bodyweight calisthenics exercises. If you are distracted, you risk not performing the movements correctly, losing count of reps and rushing through

the movements instead of taking it slow and deliberate. In addition to messing up the workout by not focusing, you will not get the relaxing, psychological lift that comes from being in the moment.

Help eliminate distractions by turning off your cell phone and working out when and where you are not likely to be disturbed. Keep the TV off: it's okay to distract yourself when doing a cardio run on a treadmill or spinning in an indoor cycle—that helps the time to go by—but for calisthenics, you need to be fully there, focused on everything you are doing.

Now, with all of that background, it's time to turn to chapter 2 and learn all of the beginner's exercises.

Chapter 2: Beginner's Exercises

Ready? Let's go. This chapter is where to begin with the basic calisthenics exercises. It includes a solid 7-day plan, scheduling your workouts on a daily and weekly basis. This chapter is in two sections: Beginner's Exercises and the Beginner's Workout Plan:

Beginner's Exercises. Become familiar with the exercises by reading the descriptions, movement directions, progressions, and performance tips so that you can get going smoothly with good form. There are images to show you each beginner's exercise and links to online video demos.

Beginner's Workout Plan. Follow the workout scheduling plan to challenge specific muscle groups effectively, and follow by resting those muscles to ensure optimal rebuilding for larger, stronger muscles.

Section 1: Beginner's Exercises

The following bodyweight calisthenics exercises have been selected to provide a total body workout, which will develop every major muscle group and get the most results for your efforts.

Max Planks



Fig 1

Link to demo video: <https://www.youtube.com/watch?v=V8aRaCR8API>

The max plank is one of the simplest calisthenics exercises, yet one of the most effective. Many athletes consider it the definitive workout for the core, especially the abdominals, the serratus anterior side muscles, the upper and lower back muscles, and the upper body. It challenges the chest and shoulders.

Begin by assuming a kneeling position, extend forward and rest on your forearms, with your elbows directly below your shoulders. Push your body up to form a flat plank. Tuck in your chin, tilt your pelvis upwards, and extend your legs fully to the rear and rise up on your toes.

Do not raise your butt high in the air, which takes the tension off the abdominals, or sag your midbody and put too much pressure on your lower back. Hold the position for 20 seconds, or up to one minute if you are able. Gently lower your body to the floor to rest, and pause before beginning the next movement.

Tip : As you become more proficient, you can slowly lower your bodyweight towards the floor, then raise it back up as a type of mini-push up.

Squats



Fig 2

Link to demo video: <https://www.youtube.com/watch?v=YaXPRqUwItQ>.

Squats are a highly effective exercise for the lower body, especially the quadriceps, which are the four large front thigh muscles, as well as the hip flexors, and glutes (your butt muscles), and to a lesser extent, the hamstrings, calves and ankles.

Start by standing with your feet shoulder-width apart. Keep your back straight, neither arching it backwards or forwards, but with a slight lean forward for balance, extend your arms forward, and slowly lower into a sitting position. If you are able, descend until your thighs are parallel to the floor. Pause for one-two seconds, then raise back up to the standing position. This is one repetition. Repeat the squats to achieve the targeted number of repetitions. Inhale as you lower, and exhale as you rise back up.

As you become stronger, you may extend the time spent during each squat, adding a few seconds in the down position.

Tip: If you have trouble maintaining your balance during the squat movements, you can lightly touch or hold onto a counter, table, or chair.

Lunges



Fig 3

Link to demo video: https://www.youtube.com/watch?v=wrwwXE_x-pQ.

Lunges develop your glutes, quadriceps, and hamstrings (the strong muscles at the rear of your upper legs). The hip flexors and calves get secondary tension. These movements also help develop balance, but in the beginning, it may take some practice to stay steady.

Start in a standing position with feet together. Place your hands on your hips for balance, and take a long stride forward with either leg and lower the trailing leg towards the floor. The thigh of the front leg should be parallel to the floor, and the knee of your trailing leg should be close to the floor but not touching. Keep your back straight, trying not to lean too far forward. Be sure to inhale deeply as you lower and fully exhale as you rise back up.

You may perform repetitions either by repeating the lunges with the same forward leg until you reach your quota, and then switch legs, so you do the same number reps with both legs; or, you can alternate legs on every repetition: right, left, right, left, etc. You may also perform three or four lunges with the same leg, then switch and do the same number of lunges with the other leg, then switch back and repeat the cycle.

Tip: As with squats, if balance is a problem, reach out to a table or chair to stay steady. But don't shift your weight, or it will reduce the tension of the lunge.

Push Ups



Fig 4

Link to demo video: <https://www.youtube.com/watch?v=ABbVpmubIGQ>

The traditional push up is one of the best overall exercises since it works many muscle groups: shoulders, triceps, chest muscles, and the core, from the frontal abdominals to the serratus anterior sides and back muscles, including the scapula region (shoulder blades).

As with the max plank exercise, start from a kneeling position, and extend forward, but now hold yourself up with your arms fully extended. Your hands should be below your shoulders. Tuck in your chin, tilt your pelvis upwards, and extend your legs fully to the rear, and rise on your toes. Hold your body up to form a flat plank, supported up front by your arms, and in the rear by your toes.

Begin the movement by slowly lowering your chest towards the floor, and be careful not to raise your butt too high or sag and put too much pressure on your lower back. As soon as you have fully lowered towards the floor, push yourself back up to the starting position, with arms fully extended, and repeat to achieve the desired number of reps. Breathe in as you lower, and exhale as you push back up.

Progression: If you find traditional push ups too challenging when starting, you have some easier options to get started:

1. Stand facing a wall, with feet together or up to shoulder-width apart, and lean forward with arms extended to reach the wall. Lower your upper body forward towards the wall, pause, and push back out. As it gets easier, stand farther back from the wall. Remember not to sag your back or stick out your butt.
2. Assume the basic push up position, but instead of placing your hands on the floor, use a box or bench to lean on so you don't lower all the way to the floor. Keep your knees on the floor as you lower and raise back up. You will be dropping less bodyweight and should find the movements easier.
3. Assume the basic push up position, with your hands on the floor, but keep your knees on the floor as you lower yourself and raise back up. Your hands should be on the floor, below your shoulders, as with the traditional push up. By being on your knees instead of your toes, you will be lowering less bodyweight. As with the previous movement, you should find it more comfortable than a full traditional push up.

Tip: Keep your back straight, and resist sagging or arching your back. As you become proficient, slow down the rate of lowering and raising; it will be more beneficial than just adding reps.

Lying Down Leg Raises



Fig 5

Link to demo video: <https://www.youtube.com/watch?v=JB2oyawG9KI&t=9s>

This is a moderately easy calisthenic exercise that works the core, notably the frontal abdominals. It also works the hips flexors and glutes and stretches the rear hamstrings. Leg raises are preferred by orthopedists and trainers to crunches and sit-ups for the abs since leg raises are less likely to strain the back.

Begin by lying on your back and bringing your knees to your chest, then extending your legs upwards towards the ceiling. Then slowly lower your fully extended legs towards the floor. Lower as far as you are able, ideally to within a few inches of the floor. You may need to lower a bit less in the beginning. Pause for a moment, then raise your legs back up to the starting position. Repeat the cycle for the scheduled number of reps.

Tip: Be careful not to arch your back; keep it flat on the mat or floor to avoid back strain. You may also slide your hands under your hips or use a folded towel. This seems to place less stress on the back.

Max Mountain Climbers



Fig 6

Link to demo video: <https://www.youtube.com/watch?v=nmwgigXLYM>

This is a total body exercise that works a range of muscles and muscle groups: the upper body and arms with the shoulders and triceps, the central core, and the hip flexors, glutes, and legs. Because you can perform this exercise at a vigorous pace, you also gain cardiovascular (aerobic) benefits.

Begin in the push up position, with arms fully extended and spread the width of your shoulders, or slightly wider, and with hands beneath the shoulders. Bring one leg forward so that your knee is under your chest. Bring the leg back to the starting position, and repeat

the movement with the other leg. Depending on your degree of flexibility, you may need to keep your leg lower as it pulls forward, letting your foot skim along the floor. Don't rush the exercise, but try to sustain a steady, rhythmic pace so that your heart rate increases.

Tip: It may be tempting to raise your hips to make the leg movements easier, but you'll benefit more by keeping your back straight.

Pike Push Ups



Fig 7

Link to demo video: <https://www.youtube.com/watch?v=HT4G-uWcVcc>

As a variation to the traditional push up, the pike push up will give your shoulders and triceps an even more intensive workout while still challenging and tensing the frontal, side and back core muscles.

You begin in the upper push up position, but instead of maintaining a straight back, you raise your hips upward by walking your feet forward or sliding your hands back. You want to end up in a starting position with your body in a pyramid shape, with your butt pointing upwards. Now bend your arms to lower your head and chest towards the floor, lowering as far as you can without strain or losing your balance. Push back up to the starting position to complete one cycle. Lower again and continue to reach your targeted number of reps: if it's too hard to do them all, don't worry, just continue until the last one is really tough, and quit. You'll get stronger!

Tip: If you can't go all the way to the floor, getting halfway there will still be a good exercise. You can increase the shoulder and triceps effort by standing on a low bench or chair. This will cause your descent to be even more vertical.

Close Hand Chin Ups & Wide Hand Pull Ups



Fig 8



Fig 9

Link to demo video: <https://www.youtube.com/watch?v=UfhT0OSUU0w>

These are both classic exercises that will challenge and build your shoulders, biceps, and other arm muscles, as well as chest and core muscles. They are very similar, yet due to the

handgrip positions, there are differences in how specific muscles are tensed and strengthened:

- Chin ups are especially effective to build the biceps and the brachialis muscles just above the elbow.
- Pull ups are less effective for the biceps but very good for the brachialis and the brachioradialis, in the upper forearms.
- Chin ups *and* pull ups are equally useful in building a broad and powerful back, along with the lats, which are the upper side chest muscles that extend outward and give the “V” shape that athletes want.
- Both are also useful in building the pecs, the broad muscles that define your chest, but chin ups are better due to closer hand position.

As mentioned in the previous chapter, you will either need to have access to a chin up or pull up bar. If you can't go to a gym or playground, consider an inexpensive portable bar for use at home. Check online or at sporting goods stores or one of the large discounters.

Begin either chin ups or pull ups by reaching up and gripping the bar: for chin ups, it's an underhand grip: your palms should be facing back, with the hands about six to eight inches apart. For pull ups, it's an overhand grip: your palms should be facing forward and placed about shoulder-width apart. If you cannot reach the bar, it is better to stand on a block or other object instead of jumping, so you can comfortably and correctly make your grip on the bar:

Progression: From the fully extended hanging position, engage and tighten your shoulder blades, trying to pull them together and down. Now bend your arms and try to pull yourself up, as high as you're able. Ideally your head will come up to the level of the bar, but you may need time and practice before this is possible.

- Slowly lower yourself down to complete one full cycle and repeat the targeted number of reps, if you are able. Don't strain; quit when you find you can no longer pull up or chin up as high as the earlier reps.

Tip: If you find chins ups and pull ups difficult, consider getting someone to help reduce your bodyweight. This can be done by the person grasping your hips and pushing up as you pull. If you have access to a gym, there may be a bar with weight assistance.

Dips



Fig 10

Fig 11

Fig 10. Link to demo video: https://www.youtube.com/watch?v=0326dy_-CzM

Fig. 11. Link to demo video: https://www.youtube.com/watch?v=AGCwEXqW_M

Using A Bench or Dip Bars: You can perform dips in several ways: using a bench, a chair, or dip bars. All are effective in isolating and challenging the triceps, which are the muscles at the back of your upper arms. Your deltoids and your core will also benefit since these muscles tighten through the exercise. Regardless of what type of dips you perform,

emphasize quality over quantity: it's more important to lower yourself completely, maintaining good form, than going fast to try for more reps.

Bench dips: To do dips with a bench (or a chair), begin by sitting on the edge of the bench, and gripping the edges, so your palms are flat on the bench and able to support your bodyweight. Your legs should be bent, feet flat on the floor. Now slide forward off the bench and slowly lower your hips towards the floor. Keep your core, especially the abs, tight. Descend as far as you can, pause, and push all the way back up, being sure to feel your triceps tighten at the top. Repeat the required number of reps.

Progression: To increase the intensity of the bench dips, move your feet forward, so your legs are partially extended. To further increase the intensity, extend your legs fully forward, with your feet on your heels.

Bar Dips: You may know them as parallel bars; dip bars allow you to push yourself up and lower down vertically. They are more difficult than bench dips, but there are progressions you can follow to ease into the movements.

When doing dip bar dips, descend fully, but not to the point of straining your shoulders. Once you feel the shoulders pulling, it's time to push back upward.

Starting out, push yourself up so your arms are fully extended. Your elbow joints—inside the arms—should be facing forward. Hold this position as the first step in your progression.

Progression: You may begin doing assisted dips, which will reduce the amount of bodyweight you'll be lifting. The assisted dip can be performed with a bench, as we just discussed, or with a low bar. You may also get the same effects of the bench dip by dipping between parallel bars, but with your legs extended horizontally and your feet resting on the bars. That way, only the weight of your upper body is being lowered and raised.

- The next progression is to dip between parallel bars, with an elastic exercise band under your knees to reduce your weight. You can progress from heavier to lighter bands as you get stronger.
- Yet another progression is to position yourself between parallel bars, standing on the ground and with your hands on the bars. As you begin to push to rise, jump upwards, so the lift's resistance is reduced. Then slowly lower your body until your feet are back on the ground, and you can repeat the movement.

Tip : If your feet don't reach the ground, use a box or large rock to stand on.

When you are ready for unassisted dips, perform the exercise without any reductions in your bodyweight. Start in the up position, arms fully extended, body vertical. Lower yourself fully then slowly raise back up to the starting position. Repeat the desired number of reps. Your body will tend to lean forward slightly; this is normal.

When you have mastered unassisted dips, you may take another progression by tilting your body further forward as you descend and rise back up. Your shoulders will extend forward of your hands. This forward-leaning position places a more significant load on the shoulders and triceps.

Jump Squats



Fig 12

Link to demo video: <https://www.youtube.com/watch?v=U4s4mEQ5VqU>

Jump squats are a variation of the squat exercises for the lower body and benefit the same muscle groups: the quadriceps, hips flexors, glutes, and the calves, but with a more significant effort required and potentially greater challenges to your muscles.

As with squats, start by standing with your feet shoulder-width apart. Keeping your back straight, neither arching it backwards or forwards, extend your arms forward, and lower into a sitting position. But now, instead of just pushing back up, jump upwards, ideally high enough that your feet will rise above the ground for a few inches. As you come back down (thanks to gravity), drop back down to the sitting position, and then jump back up again for the next rep.

Tip: If you can't jump high enough to leave the ground, that's okay: it's the jumping effort that's doing the work. Over time, you will be able to jump higher. Also, if this exercise hurts your knees, pause in the descent phase; don't lower yourself all the way down.

Australian Pull Ups



Fig 13

Link to demo video: <https://www.youtube.com/watch?v=e26VAIQVVwg>

Given the importance of pull ups among bodyweight calisthenics, trainers have been developing alternatives that may be less strenuous and may easily be performed at home without equipment. The Australian pull ups meet those criteria since you lift less of your bodyweight and no equipment is needed, assuming you have some furniture and a broom or mopstick.

The broomstick (or tripod or other type of pole) should be suspended by the backs of two chairs or sofas, desks or tables, or other solid furniture or boxes that can support your weight and that are placed about two feet apart. Suspend the pole so that you can slide under on your back and be able to reach up and grip the bar, with your hands shoulder-width apart and with your palms facing forward. Perform the exercise by pulling your chest up to the bar, pause, and slowly lower yourself back to the floor. Repeat the movement for 10 reps, or whatever number of reps is in your schedule.

Can you do chin ups in the same way? Yes, just reverse the grip, so your palms are facing backwards.

Tips: Make sure the pole or stick you use is strong enough to hold you, and be sure that the furniture holding the pole is solid and steady.

Hanging Leg Raises



Fig 14

Link to demo video: <https://www.youtube.com/watch?v=kwldBBHkokI>

Hanging leg raises are recognized for helping to develop strong, well-defined abdominal muscles. If you hope to develop the famous “six-pack” abs, these will help you get there faster than crunches or sit-ups. But hanging leg raises are not easy (which is why they are so effective). You can start with progressions and work your way to full leg raises by following a series of gradual increases in intensity. In all the exercise versions, you begin by gripping the bar in the palms-forward, pull-up position.

You will be hanging at arm’s length; there is no lifting involved. The progressions are listed in order, from easiest to most difficult.

Progression: Alternating hanging knee raises: one knee is raised to waist height, held in place momentarily, and lowered. The movement is repeated with the other leg to complete one rep. Continue per the plan for the prescribed number of reps.

- 90-degree hanging knee raises: both knees are raised to waist or chest height. Pause, and then slowly lower the legs for one rep.
- Hanging knee raise with negative straight leg raise. Knees are raised to chest height, and then legs are extended forward. This is harder than the previous two but worth the effort. Be sure to pause before lowering your legs.
- 90-degree straight leg raises: both legs are extended and raised to waist or chest height. This is probably the most challenging progression, and will take practice before you may be able to do it, keeping good form.
- Toes-to-bar leg raises: both legs are extended as in the 90-degree straight leg raise, but then there is an additional step as both legs continue to be raised upward to reach the bar. Pause and slowly lower the legs for each rep.

Tip: Many of us hope to create great abdominal muscles, the desirable 6-pack. But building a defined set of abs takes more than exercise; it requires minimal body fat, so some weight loss may be needed. Be aware that you cannot spot reduce fat in specific body areas through exercise; it’s the overall weight loss that will eliminate that extra fat.

Wide Pushups



Fig 15

Link to demo video: <https://www.youtube.com/watch?v=rr6eFNNDQdU>

Wide push ups are ideal for increasing the strength of your chest and shoulders while also working the core muscles, both front and back. But there is a limit: going too wide may risk straining your chest and your shoulders, especially the group of muscles known as the rotator cuff. So don't overdo the extra-wide grips during your beginning phase.

Normal push ups have your hands placed beneath your shoulders, but for wide push ups, place your hands a few inches wider, about three inches wider on each side. Lower your body as with a regular push up, moving slower rather than faster for full effect.

Progression: To work your way into full wide push ups, you may follow the same steps as shown with regular push ups, starting against a wall, with a wider placement of your hands. Then you can progress to horizontal poses on your knees (not on your toes), first with your wide-spread hands on a raised surface and then with your hands on the floor.

Tip: Because this is a more challenging exercise, you may want to wait until you have mastered traditional push ups, including push ups done at half the usual speed.

Wall Sit



Fig 16

Link to demo video: <https://www.youtube.com/watch?v=-cdph8hv000>

This is one of the simplest calisthenics exercises to perform. Still, it is surprisingly effective in building and strengthening your thighs, especially the quadriceps, and the hamstrings, the sides of your thighs, and the glutes. There are some benefits to the core, as well. It's popular among skiers and cyclists, who depend on strong thighs.

Lean your back flat against a wall, and slide or lower down to a squat until your thighs are parallel with the floor. Your feet should be shoulder-width apart, and your hands and arms should be flat against the wall. Press against the wall to keep your back and head erect, and do not lean forward. Hold the position for 30 to 40 seconds, then raise back up.

Tip: You may not be able to hold this position for the targeted time, so to begin you may wall sit for a shorter time; you should become comfortable after a week or two of practice.

You may also ease into this position by not lowering fully for the first week or so: slide down as far as you are comfortable and hold that position.

Clap Push Ups



Fig 17

Link to demo video: https://www.youtube.com/watch?v=FRo3b_Pfw3M

The clap push up may be one of the more challenging exercises in your beginning calisthenics training because it is more difficult than a traditional push up. The clap push up works the same muscle groups as the push up: chest, shoulders, arms (especially triceps), and core. But with the additional explosive clap movement, the muscles are further challenged by a more exertive pushing up, and a more rigid “landing” as you lower back down to the floor.

Begin in the usual push up position, with your body supported up front by your hands, arms fully extended with your hands beneath your shoulders. Your legs are fully extended to the rear, suspended by your toes. Start by lowering your chest to the floor as usual.

But now, push yourself up forcefully, and as you do so, clap your hands, then quickly return your hands to the floor to continue to lower your chest to the floor and to complete one rep. Continue the set by again pushing up hard, clapping, and lowering your chest to the floor.

Progression: To work your way into full clap push ups, you may follow the same steps as shown with regular and wide push ups, starting against a wall, then progressing to horizontal poses on your knees (not on your toes), first with hands on a raised surface, and then with hands on the floor. Another form of progression, in the traditional push up form, is to push up explosively. But instead of clapping, just raise your hands off the floor. This is known as a plyo push up; it’s tough, but not quite as hard as the clap push up.

Tip: Because this is a more challenging exercise, you may want to wait until you have mastered traditional push ups, including push ups done at half the usual speed.

Superman Hold



Fig 18

Link to demo video: <https://www.youtube.com/watch?v=ARQHGgpmECM>

This bodyweight calisthenic movement, or pose, is named for the flying position of Superman, with arms and legs fully extended, and with a moderate arching of the back. It's good for improving posture by countering a tendency to bend or stoop forward. In addition to strengthening and flexing the lower lumbar spine and upper thoracic spine, the Superman hold tenses the shoulders, chest, core, glutes and hamstrings.

Lie on the floor, face down and reach fully forward with your arms, and extend your legs to the rear. Hold your head up (as if to see where you are flying), but do not strain your neck. Raise your arms at the shoulders, so they are off the floor but still fully extended forward. Lift your legs as well, getting them off the ground a few inches, or higher, if you can. Hold the position for 10 to 20 seconds, then lower the arms and legs to the starting position. Wait 20 seconds, then repeat for a second rep. Continue to perform the scheduled number of reps.

Tip: You may find it hard to lift both arms and both legs when beginning. An easy progression step is to lift just one arm and the opposing leg, then alternating. For example, raise, hold, and lower the right arm and left leg, then the left arm and right leg.

Jumping Jacks



Fig 19

Link to demo video: <https://www.youtube.com/watch?v=1b98WrRrmUs>

Jumping Jacks provide good aerobic benefits. They will get your heart pumping. They also benefit your legs, from calves to thighs, help tighten the core, and loosen your shoulder muscles.

Stand erect with your feet together or slightly apart, arms hanging loosely at your sides. In one smooth jumping motion, move your feet out to the sides, about shoulder width, and reach your hands high over your head. Jump back to the starting position, with feet close together and hands at your sides. Without pausing, continue the jumping and reaching cycle. Keep the jumps to the side smooth and light: do not leap up in the air, but just a short distance to the sides. When you reach up with your hands, they just need to come close; there's no need to clap (although you may clap if you can). Perform the reps in your plan, and don't rest too long between sets, to keep the aerobic effects going.

Tip: If it's too hard to jump shoulder-width sideways, you can reduce the distance and just go several inches in each jump. The jumping motion is more important than the distance, so start with the shorter jump until you can go farther.

Alternating High Knee



Fig 20

Link to demo video: https://www.youtube.com/watch?v=oVkx_BuXLzs

When you lift your knees high, in a repeating pattern, you are giving your hip flexors an excellent workout, to loosen and strengthen them. The legs, ankles, calves and thighs also benefit. If you keep your core tight, your abdominals will be tensed. There are two versions of this exercise: the more challenging is also a good cardio workout.

Stand erect, with your feet hip-width apart, and your weight evenly distributed, so you feel you are in right balance. Raise your forearms, so they are parallel to the floor, and your hands are positioned palms-down. Keep your hands up, so they are waist-high.

The more effortless movement is to simply bring one knee up to meet your hand, lower the leg, and repeat with the other leg: right leg to right hand, left leg to left hand, right leg to right hand, etc. Be sure to raise your knees high enough to reach your hand at waist height. Continue the movement for the scheduled number of reps.

The more challenging version is to hop up on each movement, so as your right knee is heading towards your right hand, your left foot has hopped up a few inches; this continues with each leg. While this may be more challenging, it gives you aerobic benefits because it's similar to running in place, but with much more leg lift.

Tip: Begin with the first version, without hopping, until you can comfortably lift the knees to your hands repeatedly. Then try a mix of several reps of keeping one foot on the floor, then several reps of hopping, then back to the easier version, etc.

Section 2: Beginner's Workout Plan

To optimize your beginner's calisthenics exercise, this plan has been developed to guide you through a 7-day schedule. You are encouraged to follow the plan which has been designed to work and then rest each muscle group. Here are some tips from the previous section to help get you going and stay on track:

- It's a good practice to perform your exercises at the same time every day. This habit will keep you consistent and help avoid the "I'll get to it later" excuses.
- Another tip is for days when you feel you are just not up to it; think to yourself that you'll do a short, easy routine, and that will get you started, and once underway, you'll most likely get through the day's planned routine.
- Inevitably, despite good intentions, you will miss a workout from time to time; don't worry about it, and consider it a recovery day to help your body repair and rebuild your muscles from the previous workout. Just be sure not to allow too many consecutive rest days, or you will start to lose that extra muscle tissue you have been building.

7-Day Workout Plan

This plan has been developed to optimize your muscle and strength building and provide a day of aerobics. Instead of the traditional practice of performing one set of an exercise, resting, and repeating the same exercise for two more sets:

- In this plan, you will perform each exercise in sequence, separated by brief rests, until you complete one full cycle of seven exercises.
- You will then repeat the cycle three more times, for a total of four cycles of seven exercises.
- Within the 7-day workout, there are two rest days and one day devoted to cardiovascular conditioning.
- Return to the above section to review each exercise's techniques before starting, so you can do each correctly.

Monday

Your 7-day workout begins with the more familiar planks and push ups to work your arms, shoulders, chest, and core, plus three leg challengers.

Exercise	Repetitions	
1. Max Plank	1	Hold for 30 to 45 seconds
2. Squats	10	Keep your back straight!
3. Lunges	10 each leg	
4. Push Up	10	
5. Lying Down Leg Raises	10	Feel your abs as the legs descend
6. Max Mountain Climbers	25 each leg	
7. Pike Push Ups	10	Go partially down if too hard at first

- These seven exercises represent one cycle. Perform four cycles of the seven exercises. Rest for 40 to 60 seconds between each exercise and for two minutes between each of the cycles. Stretch lightly when the four cycles are completed.

Tuesday

Today's routine is pull up/chin up intensive and will be working your arms and shoulders, your chest and back, and the core (especially the abs with the hanging leg raises). Jump squats will give your thighs a good workout.

Exercise	Repetitions	
1. Close Hand Chin Ups	6	
2. Pull Ups	5	Up to 120 seconds rest after chin ups

3. Dips	7	
4. Push Ups	10	
5. Hanging Leg Raises	5	Use progressions if needed
6. Jump Squats	10	
7. Australian Pull Ups	15	

- These seven exercises represent one cycle. Perform four cycles of the seven exercises. Rest for 40 to 60 seconds between each exercise and for two minutes between each of the cycles. Stretch lightly when the four cycles are completed.

Wednesday

Rest day. No calisthenics or heavy lifting; give the muscle fibers time to recover. If you are doing aerobic exercises, like running, fast walking, ellipticals, cycling, or swimming, you may perform these, but go easy instead of intensive.

Thursday

This will be a challenging day for your legs, with quads worked with climbers, wall sits, and squats. Push ups, planks, and superman will work your arms, shoulders, and core.

Exercise	Repetitions	
1. Wide Push Ups	20	
2. Max Mountain Climbers	25 each leg	
3. Wall Sit	1	60 seconds (40 to begin)
4. Clap Push Ups	10	Use progressions if needed
5. Superman Hold	1	30 seconds (Progressions if needed)
6. Squats	30	20 to begin
7. Max Plank	1	Hold for 30 to 60 seconds

- These seven exercises represent one cycle. Perform four cycles of the seven exercises. Rest for 40 to 60 seconds between each exercise and for two minutes between each of the cycles. Stretch lightly when the four cycles are completed.

Friday

This is a combination of aerobic, fat-burning day, with a mix of strength and running and jumping movement exercises to raise the metabolic rate and burn extra calories. Dips and

push up and planks will work your core, chest, shoulders and triceps.

Exercise	Repetitions	
1. 80 Meter Run	1	Follow with 45 second walk
2. Dips	5	
3. Jumping Jacks	20	Or for 50 seconds
4. Push Ups	10	
5. Alternating High Knee	20 each leg	Or for 30 seconds
6. Max Mountain Climbers	20 each leg	Or for 30 seconds
7. Max Plank	1	Hold for 30 seconds

- These seven exercises represent one cycle. Perform four cycles of the seven exercises. Rest for 40 to 60 seconds between each exercise and for two minutes between each of the cycles. Stretch lightly when the four cycles are completed.

Saturday

This is an intense cardiovascular day, with movement exercises to raise the heart rate dramatically for short bursts, followed by walks for recovery. This is a beginner's high-intensity interval training (HIIT) workout, which will pump up cardiovascular conditioning and overall stamina. HIIT is also recognized for its rapid fat reduction. Before beginning the sprints, jog for 30 seconds, then break into the sprint. Jog again for 15 seconds at the end of the sprints before starting the walking phases.

Note that you will *not* be completing four cycles for each exercise: see each exercise's instruction and the bullet point at the bottom.

Exercise	Repetitions	
1. Sprint - top speed	4 reps, 15 seconds each	Follow each rep with 15 sec. jog
2. Walk - brisk speed	1 rep, 45 seconds	Follow with 40-60 second break
3. Sprint - top speed	1 rep, 30 seconds	Follow with 20-30 sec. jog
4. Walk - brisk speed	1 rep, 45 seconds	Follow with 40-60 second break
5. Sprint - top speed	4 reps, 15 seconds each	Follow each rep with 15 sec. jog
6. Walk - brisk speed	1 rep, 45 seconds	Follow with 40-60 second break

7. Sprint - top speed	1 rep, 30 seconds	Follow with 20-30 sec. jog
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These seven exercises represent one cycle, which will complete the workout; do not repeat the cycle, but feel free to jog or walk additionally once the single seven exercise cycle is completed. Stretch lightly when the four cycles are completed.

Sunday

Rest day. No calisthenics or heavy lifting; give the muscle fibers time to recover. If you are doing aerobic exercises, like running, fast walking, ellipticals, cycling, or swimming, you may perform these, but go easy instead of intensive.

Continuing the Cycles

The 7-day workout is to be continued each week, following the instructions for each exercise, and performing the reps and timed exercises as directed. Do your best, and understand that some of these exercises may be hard to do initially.

Take advantage of the progressions, which will let you ease into the movements by reducing the amount of your bodyweight that you are lifting, pulling and pushing.

Repeat the 7-day plan each week, for at least four weeks, before increasing the reps or shortening the rest periods between each exercise and between cycles.

In time, as you progress and grow stronger and more physically fit, you may want to intensify the workout. One way to increase the resistance and tension for some of the exercises is to reduce dependency on the progressions, but without compromising the quality of the exercise:

- For example, perform push ups in the traditional way, with your hands on the floor and your legs up on your toes. Or, when doing squats and wall sits, lower down fully instead of partway. When doing pull ups and chin ups, get your chin or head closer to the bar. Fully extend and fully lower your legs when performing lying down leg raises to tense and strengthen your abs.
- But in all these exercises, avoid the temptation to pay less attention to your form by bending or arching when your back should be straight, or leaning when you should be close to vertical. Don't go down (or up) halfway when you can go all the way, with a bit more effort. It's better to perform fewer reps if you can do them right.
- Be especially careful not to speed up the exercises in an effort to do more reps. You will be substituting momentum for resistance, making the exercise more comfortable but less effective. Similarly, don't bounce back up at the bottom of a push up or chin up. Always pause, so you are pushing or pulling up with a complete effort.

For most calisthenics exercises, a reliable way to gradually increase resistance and improve muscle and strength is to slow down the movement simply:

- In an extreme example, try doing push ups slowly, taking 15 to 20 seconds to lower, pause, and take 15 seconds to push back up to fully extended arms. Sounds easy? A person who can perform 20 push ups at average speed may find it hard to do more than three or four at a slower pace.

Eventually, you may feel you are ready to move up from beginner to advanced level calisthenics. There are many forms of calisthenics that increase the resistance and tension of the muscle groups. Some advanced exercises and positions are very challenging. The following chapter will give you a good introduction.

Chapter 3: Lever Up Advanced Exercises

If you are beginning bodyweight calisthenics, the exercises in chapter 2 will be all you need to build muscle and strength and begin to sculpt your body, as you become physically fit and less susceptible to illness, disease and debilitating conditions. While no two of us will build muscle in the same way or at the same rate, you can be assured that you will get out of your workouts what you put into them. Work hard, perform the exercises correctly, and you will be impressed with the results. Be patient; it takes time for the body to build muscle and strength.

But as you progress, you may want to learn and perform more advanced calisthenics exercises. There is a range of more difficult movements and routines, which you can try whenever you are ready. Just don't overdo it by trying exercises that require considerable strength, balance and coordination, until you are prepared. It's a reasonable progression to perform push ups comfortably and then ready to move up to doing clap push ups. It's a much larger effort to try to perform handstand push ups, with your feet straight above you; a movement that requires considerable strength and balance.

Muscle Ups

Once you have mastered pull ups and dips without assistance and can perform them slowly, fully, and in good form, you may want to try doing **muscle ups**. The exercise is an advanced bodyweight calisthenics movement that combines an extended pull up with a dip.

Targeted muscle groups. Muscle ups work a range of muscle groupings, notably the front and side core, back, shoulders, and arms. Most of the pull up effort involves tensing and exerting the latissimus dorsi muscle of the back and from the triceps and biceps of the upper arms. The full core is engaged throughout the movement to stabilize the transition from pulling up to pushing up. Once you have pulled over the bar, the triceps are heavily engaged to power pushing up to fully extended arms, and then to sustain control during the lowering dipping motion, and the final step of lowering to fully extended arms. The muscles of the upper chest are also involved in providing considerable pressure, helping you to rise to the top of the bar.

The movement begins with a radial pull up, which is faster than a regular pull up, to create momentum. It is followed by pulling up further to get above the bar and then pushing up until the arms are fully extended, and the waist is at the bar's level. The transition from pulling up to pushing your body up is achieved by flexing the wrists, straightening the elbows and pushing straight upward. The upper body is leaned forward for balance.

The athlete pauses in the arms fully extended position, then lowers in a gradual (not fast) dip movement, and continues down to the starting position for one repetition. There are variations of muscle ups using rings, which are even more difficult, and generally reserved for serious gymnasts.

Learn more here: <https://www.urbacise.com/exercise/muscle-up/>

If you are feeling ambitious, the world record for muscle ups on a pull up bar is 26, all in good form and without racing through the movements.

Progressions. The first step in advancing from a pull up to a muscle-up is a jump muscle up which is explained separately below; it uses the jump pull up motion to take advantage of leg-provided upward momentum.

- The legs are not assisting in the next and following progressions. The second progression is from a muscle up to a pull up is to raise your chest to the level of the bar, and extend your elbows and place them on the bars. Hold this position for a few seconds, then slowly lower back down.

- The next progression is to pull up to bring the chest to bar height, but instead of using your elbows, shift your wrists and hands forward and begin to push upwards. Raise up halfway, and lower to the starting position, being careful to lower slowly to keep the muscles engaged throughout the entire movement.
- Finally, complete the full muscle-ups exercise by pulling up to the bar and then pushing up vertically all the way, with arms fully extended.

More about progressions here: <https://wodprep.com/blog/bar-muscle-up-six-keys/>

Routine for Muscle-Ups Mastery

These preparatory exercises for the muscle-ups cycle are associated with the muscle groups that are needed to build-up to progress to being able to perform muscle ups effectively. They include new exercises, along with some of the exercises you already know from chapter 2. The routine table, which shows reps and cycles and days to workout, follows these exercise descriptions.

1. Chest high pull ups.

This is a calisthenic exercise that challenges the pulling muscles of the upper body. In addition, the midline is also challenged, especially during kipping chest to bar pull ups due to the increased need for body control. The muscle groups that are most involved are the lats (latissimus dorsi), the posterior shoulders and rhomboid muscles, and in the arms, the biceps, triceps, forearms, and wrists. The core, notably the abdominals, is also engaged.

The chest high pull up, as the name states, requires you to pull up higher than your chin, to reach the bar with your chest. You grip the bar with a palms-forward pull up hold and tighten your core as you pull up. As you will see in the demo video, you may swing your legs back and forward to provide momentum, a technique called kipping. Perform the exercise rhythmically, not too fast, and be sure to pull up hard enough to build momentum to reach the bar with your chest before smoothly lowering back down to fully extended arms.

Chest high pull up demos: <https://barbend.com/chest-to-bar-pull-ups/> | <https://youtu.be/Dsw3lsthAEY>

- A fundamental progression is to perform and become comfortable with traditional pull ups, with your chin reaching the height of the bar and with the movements being smooth, unrushed. The pull up ensures good muscle development, sufficient strength and skill so that you should be able to perform at least 10 traditional pull ups before tackling the more challenging chest high pull ups. Another progression to help get you all the way up to the bar is the kipping pull up: swing your legs back and then forward as you begin to pull up. The forward swing of your legs provides some upward momentum.

Progressions demo: <https://barbend.com/chest-bar-pull-ups-progression-beginners/>

2. Straight bar dips. You know about bench dips and parallel bar dips from chapter 2: straight bar dips use a single bar that you are facing like the second stage of muscle-ups, pushing up to fully extended arms, then lowering to the head level with the bar. But unlike muscle-ups, there are no pull ups involved. Use a straight bar to perform this exercise.

Face the bar, and push yourself up to fully extend your arms, pause, and then descend fully, but not to the point of straining your shoulders. Once you feel the shoulders pulling, it's time to push back upward.

- As a form of progression, push yourself up so your arms are fully extended. Hold this position for a moment, then slowly lower yourself halfway, pause, and then push back up to complete one rep. Continue to complete the required number of reps.

Link to demo video: <https://www.t-nation.com/training/tip-do-straight-bar-dips>

3. Clap push ups. The description of clap push ups and a link to a video demo is in chapter 2, but in summary:

Begin in the usual push up position, with your body supported up front by your hands, arms fully extended with your hands beneath your shoulders. Your legs are fully extended to the rear, suspended by your toes. Start by lowering your chest to the floor as usual. Push yourself up forcefully, and as you do so, clap your hands, then quickly return your hands to the floor to continue to lower your chest to the floor and to complete one rep. Continue the set by again pushing up hard, clapping, and lowering your chest to the floor.

- To work your way into full clap push ups, you may follow the same steps as shown with regular and wide push ups, starting against a wall, then progressing to horizontal poses on your knees (not on your toes), first with hands on a raised surface, and then with hands on the floor.

4. Head banger pull ups. Begin a normal pull up or chin up, raising your head to the level of the bar. But then, instead of lowering back down, push yourself head and upper body back horizontally away from the bar and then back to the bar, then out again, back again, for the targeted number of reps. You should appear to be pounding the bar with your head, but don't actually contact the bar with your head, of course.

- This exercise is a compound, dynamic movement which is especially good for building the arms and in elevating overall strength and stamina; in addition to the biceps and arms, it engages the muscles of your shoulders, chest, and back, specifically, the anterior delts (deltoids), and pecs (pectoralis), and the rear lats (latissimus) and traps (trapezius).

For more info and demo: <https://www.urbacise.com/exercise/head-banger-pull-up/>

5. Typewriter pull ups. This interesting name describes the hand movements that distinguish this variation of the traditional pull up. You grip the bar with palms facing forward, a wide overhand grip. As you pull yourself up, lean to the right side, so your head is approaching your right hand. Extend the left arm, and place the left forearm and wrist on the bar. Your hand should slide along the bar as the arm extends. Then, shift your weight to the left, and as you do so, reverse the position so that the left hand slides back in front of your head, while the right forearm, wrist and hand fully extend to the right.

- Typewriter pull ups target the shoulder rotators, biceps and chest, notably the front and back deltoids and the scapular muscles that strengthen the upper back and benefit your posture. It also tenses the forearms and wrists, and tightens the frontal, side and back muscles of the core. The shifting back and forth from right to left helps ensure that both sides of the body are being worked and developed equally.

For more info and demo: <https://neatstrength.com/typewriter-pull-ups/>

6. Jump muscle-ups. This is a progression for regular muscle-ups and brings in jump pull ups methodology. It's also known as the leg assist muscle-up. Stand on a block or low bench to reach the bar with arms slightly bent, and grip the bar with the palms facing forward, shoulder-width apart. Instead of starting the movement by pulling up using the arms only, gain extra momentum by squatting down and then jumping up explosively as you begin pulling up. Your pulling-up speed will be faster than usual, and as your head reaches the bar, take advantage of the momentum by quickly rolling the hands and wrists forward and pushing up to complete the movement with arms fully extended vertically in the top dip position. So except for the assistance of the jump, this is the same as a regular muscle-up movement.

- As with regular muscle ups, this movement works the front and side core, back, shoulders, and arms, as well as from tensing the lats, dorsals, and triceps and biceps of the upper arms. The full core is involved throughout the movement to stabilize

the transition from pulling up to pushing up. The triceps power the effort to push up to fully extended arms and to sustain control during the lowering dipping motion. The muscles of the upper and lower chest provide pressure, and the legs, especially the quads and calves, are tensed during the jumping-up action.

See a demo: <https://youtu.be/-m2Joe4BjcA>

7. Clap pull ups. This exercise is like the horizontal clap push up, but it's performed with a vertical pull up. Pull up faster than a standard pull up (for a progression, you may need to stand on a block or bench and jump up, as with muscle-ups). As you approach the top of the movement and your head is getting closer to the bar, let go of the bar, clap your hands over your head, and quickly regain your grip on the bar during your descent. Lower yourself to complete one rep, and pull up again to begin the next rep.

Progression. It is important to pull up fast, to build the needed momentum to keep you up while letting go of the bar to clap. A first progression is pulling up quickly to bring your chest to the height of the bar for a chest high pull up. A second progression is to pull up fast, raise your hands off the bar for a moment, and then quickly re-grip the bar.

Video demo with progressions: <https://www.youtube.com/watch?v=mYO2YYHzSZA>

7 Exercise Routine to Master Muscle-Ups

Perform the seven exercises in sequence to complete one cycle. Rest for one minute between each exercise. Perform three cycles, with a two-minute rest between cycles.

Repeat the routine every second day; for example, Monday, Wednesday, Friday, then take the weekend off for additional rest and recovery. It is essential to allow rest days so the muscle cells and fibers can rebuild.

Exercise	Repetitions	
1. Chest High Pull Ups	10	Pull up to bring chest up to bar
2. Straight Bar Dips	12	See description.
3. Clap Push Ups	10	See chapter 2
4. Head Banger Pull Ups	10	See description.
5. Typewriter Pull Ups	10	See description.
6. Jump Muscle Ups	12	See description.
7. Clap Pull Ups	8	See description.

Back Lever

The **back lever** calisthenics exercise is high on the scale of physical challenges. To experienced gymnasts, it is a fundamental movement, but to most of us, it's a formidable, impressive exercise to perform.

This is a static pose: the exercise is performed by holding a specific position; in gymnastic competitions, the athlete is evaluated for maintaining the correct form for a period of time.

It is performed with either a bar or rings: the athlete holds onto the bar or rings facing downward, the arms are held wide and fully extended, the head is held forward, and the legs are held together and are fully extended to the rear. The body, from head to toes, is parallel to the ground, perfectly horizontal.

Targeted muscle groups. In addition to challenging and building strong arms, notably the biceps and triceps, the back lever develops powerful shoulders. This hold effectively challenges and tenses the core and back muscles, and it is especially effective in developing the lats at the upper sides.

The back lever begins by performing a movement known as “skinning the cat,” which is explained below, but briefly, you hang from the bar (or rings) with a wide, palms-forward grip, as in a pull up, then raise the knees up to the chest, then continue to raise the feet to roll back and pass your feet over your head, (under the bar) and extend them backwards. Bring your hips and legs back, partially. If you are new to this exercise, fully extend just one leg fully to the rear at a time. Once both legs are extended to the rear, your body should be in the horizontal position; you are now in the back lever position.

Another, possibly easier, technique is to first go fully vertical, with the head pointing down and legs extended upward. From that position, slowly rotate until your body is parallel to the ground. Hold, and then reverse the movements to complete the exercise and dismount.

See both techniques in the video demo: [How to do a Back Lever](#)

Progressions. There is an effective progression using a looped and knotted resistance band. The band is suspended from the bar and gripped between the thighs to reduce the amount of bodyweight that you have to suspend. It is positioned at the center of gravity, so your body can more easily be kept parallel to the ground; the knot prevents the band from sliding.

- Another progression uses a resistance band stretched across dip bars. In this example, the band supports you in the hip region, keeping you in balance and providing a greater range of movements as you work into, and achieve, the back lever.

A demo of these resistance band progressions may be seen here:

https://www.youtube.com/watch?v=PFALmtU6J6U&feature=emb_rel_end

Targeted muscle groups . The back lever is a highly beneficial whole-body exercise, which helps develop arms, shoulders and chest, and especially the frontal and side core and back. The quadriceps and hamstrings are tensed, but not as much as the arms and shoulders, which are holding up your entire bodyweight.

Routine for Back Lever Mastery

These preparatory exercises for the back lever are associated with the muscle groups needed to build-up and perform this very challenging pose effectively. The routine is below, following these exercise descriptions.

1. Tucked back lever . This is a close prelude to the full back lever exercise and makes a good progression. Reach up to hold the bar with a wide palms-forward pull up grip. Pull yourself up and curl up, as in the skin-the-cat manner (see skin-the-cat, below). Lower until your back is parallel with the ground, and hold the pose for 15 to 30 seconds,

- The tucked back lever works the anterior (front) arms, especially the biceps, plus the deltoids and pectorals of the chest, and the core, especially the rectus abdominis muscles. The rear (posterior) lats and trapezius are challenged, as are the triceps at the back of the upper arms. This exercise effectively works every muscle in the mid and upper body.

For more info: <https://www.drworkout.fitness/back-lever-progression/>

2. L-sit pull ups. This is an advanced bodyweight calisthenics exercise that works and develops control of the core, builds upper body strength, creates midline stability and is a good progression for the back lever. This is a compound exercise that works multiple muscle groups, including the abdominals, lats, biceps and forearms, the rhomboids and scapular stabilizers of the upper back, and for the legs, the quadriceps and hip flexors.

It is a combination of a pull up and a hanging leg raise, and it is more strenuous than either when performed alone.

The L-sit pull ups begin by gripping the bar with the usual palms-forward grip and hanging with the arms fully extended. Now raise the legs to an L-sit position, parallel to the floor, extended fully forward. With the legs extended, pull up to raise your chin to the bar. Lower the pull up, keeping the legs extended in the L-sit position (if you can; if not, let the legs lower partially). Complete the exercise by fully lowering the legs.

Progressions. Progressions include hanging and raising the legs to the L-sit position, or raising the knees towards the chest, and then extending one leg at a time. Alternatively, raise your knees towards your chest and perform a pull up. Another progression involves standing on a bench and jumping up, and raising the legs to the L-sit position; pause at the top, then slowly lower, maintaining the extended legs.

Watch the demo video: https://www.youtube.com/watch?v=F57SgTZ-frg&feature=emb_logo

3. Wall-assisted handstand. Using a wall to help work into a handstand is very beneficial; the wall allows you to step upwards gradually and helps maintain balance. The muscles of the arms, especially the triceps, and shoulders are the most challenged, with additional tension being absorbed by the core, chest, and upper back, notably the rhomboids and scapular stabilizers.

Begin by standing with your back to the wall and lower yourself to the floor so that you are on your hands and knees, with your feet touching the wall. Your hands should be shoulder-width apart and directly below your shoulders. Keeping your arms fully extended, start to walk one foot and then the other up the wall, and move your hands back at the same time. As you continue to step up the wall, your hands should continue to move back, so they remain beneath your shoulders. Keep the arms fully extended, walking your hands back towards the wall. Do not rush the steps, and be sure to be leaning against the wall to keep your balance. Continue stepping upward until your legs and arms are fully extended, and your toes are the only part of your body touching the wall.

Once you have achieved the handstand, your shoulders should be firmly against your head and strongly supporting your bodyweight. Tighten your abs, pressing your belly button toward your spine. Hold the position for up to two minutes once you have mastered it. But leave some energy to help you keep reasonable control of your dismount. Begin the descent by walking your hands forward and walking your feet down the wall.

A good demo video: <https://youtu.be/poU2nRA-Hbk>

4. Dragon flag . This was said to be Bruce Lee's signature exercise and is named after him since he was known as "the dragon." The "flag" part of the name is for the shape the body makes in performing the exercise, looking like a flag extended fully in the wind. It is used primarily to intensely work and strengthen the abdominals, plus leg and back muscles. The Dragon flag is similar to leg raises, but more difficult, which is why it is very effective.

Progression . Given the need for strong abs to perform the dragon flag correctly, some progressions are recommended: start with the hollow body hold, lying on your back, with your legs extended and raised to about a 30-degree angle, and with your arms and shoulders extended behind you and raised, along with your upper body. Only your lower back should be in contact with the floor. A more comfortable progression is to perform lying leg raises (see chapter 2).

Begin the actual dragon flag exercise by lying on a bench with your head close to one end of the bench. Reach back and grab hold of the bench. Now raise your knees to your chest, and raise your hips off the bench. Begin to extend your legs forward, being sure to keep your hips up off the bench. Extend to the point you can still keep legs and hips and lower back off the bench. An “almost there” progression is to keep one leg bent and the other leg extended fully and held at a 45-degree angle above the bench. Alternate the legs.

The complete dragon flag is performed with both legs fully extended, and along with the hips and lower back, raised off the bench, with the legs at a 45-degree angle. Your body, from your mid-back out to your toes, should be in a straight line. Instead of gripping the bench above your head, you can extend your hands to your hips and grip the bench on either side. Hold the position for as long as you can, then lower to the bench and rest before repeating.

Demo of progressions: <https://fitnessapie.com/dragon-flag/>

5. Windshield wipers. This exercise is primarily to strengthen the abdominals and the obliques, but it also loosens the back and the hips flexors. Your legs will be rotating, or waving, from side to side, recalling the motion of windshield wipers. It is not too difficult for beginners.

Progressions. Begin by lying flat on your back, on a mat, carpeted floor, or folded towels. Do not subject your spine to a hard floor or bench. Another reason not to use a bench is the risk of falling off since your legs will be shifting from side to side. A good way to start is this progression, which will make the exercise easier and take tension off your back and spine: pull your knees up to your chest, and then rotate your knees to the right, then left, then right, in a continuing sequence. You should be pivoting on your hips. Rotate as far as you can towards the floor, but stop and begin the return movement before touching the floor.

The next progression is to partially extend your legs, halfway between knees close to chest and legs fully extended. The full windshield wipers exercise is performed with the legs fully extended overhead and kept extended throughout the rotations. As before, do not let your feet touch the floor, and maintain a slow, rhythmic pace.

Link to a brief demo video: https://www.youtube.com/watch?v=X59_4RrU_aA

6. Skin the cat . You may perform this familiar exercise on a bar or with gymnast rings. It is a stretching exercise for the upper body. Perform it by grasping the bar or rings with your palms facing forward in the pull up grip. Now raise both legs, knees first, curling up, and continue until you are hanging upside down. Then, pass your feet through your arms and over your head and then down towards the ground. Hold the position briefly, feeling the stretch in your arms, legs, and back. Return your feet through your arms and slowly lower yourself to the beginning position.

Like the tucked back lever, skin the cat works the shoulders, biceps and triceps of the upper arms, plus the upper body delts, pecs, lats and core.

Further instructions: <https://breakingmuscle.com/fitness/how-to-build-up-to-the-back-lever>

6 Exercise Routine to Master Back Lever

Perform the six exercises in sequence to complete one cycle. Rest for one minute between each exercise. Perform five cycles, with a two-minute rest between cycles.

Repeat the routine every second day, for example, Monday, Wednesday, Friday, then take the weekend off for additional rest and recovery. It is important to allow rest days so the muscle cells and fibers can rebuild.

Exercise	Repetitions	

1. Tucked Back Lever	1	Hold for 20 seconds
2. L-Sit Pull Ups	6	See description.
3. Wall-Assisted Handstands	10	See description.
4. Dragon Flag	8	See description.
5. Windshield Wipers	10	See description.
6. Skin the Cat	1	Hold for 25 seconds

Front Lever

The exercise known as the front lever is popular among gymnasts because it is relatively easy for highly conditioned athletes, and it can be integrated into an advanced calisthenic program. It is a static (nonmoving) pose, and it is usually performed on a pull up bar or with rings. In performing the pose, or hold, the athlete is hanging from the bar with a palms-forward grip, and the body is parallel to the ground, with head and legs fully extended in a straight line. The front of the body is facing upwards, and the arms are at an angle to maintain balance between the upper and lower body.

Targeted muscle groups. Similar to the back lever, the front lever effectively builds strong arms, especially the forearms, biceps and triceps, and develops powerful shoulders. The front lever effectively challenges and tenses the core and back muscles, and it is especially effective in developing the lats at the upper sides.

Progressions. A good beginning preparatory exercise is to hold weights in each hand and lift backwards, arms fully extended, and while testing and contracting the scapula (shoulder blades). Hold the weight in the upward position for about five seconds, then lower, pause and repeat eight or so reps. Do not arch or bend the back. The next progression uses rubber resistance bands to work the arms and shoulders: lie on your back, and with arms fully extended, pull down and forward on a bar that is connected by the bands to an overhead bar; this enables you to simulate the front lever, with less than your bodyweight for resistance.

- The front lever pose may be achieved by first performing an inverted hang, with the legs fully extended upwards, vertically towards the ceiling, and the head and upper body pointing downward. The arms are fully extended, hanging on with the palms-forward grip. The legs are then lowered, maintaining full extension, and the head, shoulders, and upper body are raised until the upper and lower body are in a straight line parallel to the ground.
- A transitional progression of this inverted hang movement: instead of rotating your legs fully forward, pull your knees to your chest in a tuck position, then rotate downward, keeping the knees high until your body is vertical and you can straighten your legs. The video demo will show you how this is done. The next progression involves extending one leg forward, horizontally, from the tuck position, then pulling the leg back and extending the other. As you do this, lean your head and upper body back towards a horizontal position.

See the progressions: <https://www.menshealth.com/fitness/a26234725/front-lever/>

Routine for Front Lever Mastery

These preparatory exercises for the front lever will help to develop the muscle groups that are needed to build-up and be able to perform the front lever correctly, in good form effectively. The routine is below, following these exercise descriptions.

1. Dragon flag. This is one of the best exercises to strengthen the core, especially the abdominals. When fully extended, the dragon flag position replicates the extended legs that are essential to the front lever pose. If you can hold the dragon flag, you will be able to keep your legs extended horizontally. See the previous section for the description and progressions.

2. Elbow lever. Surprisingly, while this calisthenics hold position looks complicated, it is more straightforward than it appears because it is more dependent on balance than on strength. The elbow lever works the arm muscles, giving tension to the forearms and wrists, plus the triceps and shoulders. As the body is extended horizontally, the core muscles, both front and back, are engaged, and in the legs, the hamstrings are tightened. In the upper back, the scapula is extended, strengthening the upper back muscles.

To begin the elbow lever, go down on your hands and knees and place your hands, so your fingers are pointing to the rear towards your knee. With your hands beneath your shoulders, lean forward and rest your abs or rib cage (whichever feels more comfortable) on your elbows. Extend your legs to the rear, and as you do so, lean your body forward so that your bodyweight is balanced. If your elbows are vertical, too much weight will be to the rear. As you extend your legs back and your head and upper body forward, maintain a balance and work to assume a horizontal pose up front and with your legs arched up a bit to the rear.

Progression. Before trying to do the full elbow lever pose, work first on getting comfortable resting your body on your elbow. Keep your legs extended to the rear, but leave your toes on the ground, so you are not lifting too much weight at first. Once you are solidly resting on your elbow, you can slide forward as you raise your legs. A good progression exercise to strengthen your back, legs and arms is the Superman hold, which puts you in a similar extended horizontal position while tensing the shoulders and arms, core, lower back and legs.

An excellent brief video demo: <https://youtu.be/72BYEdfEIFM>

3. Lying down leg raises. This is an excellent exercise for the abdominals and the lower back, glutes and hip flexors. It is easier than the dragon flag, so give this priority if you are a beginner and are working to strengthen your abs. Refer to chapter 2 for the description of lying down leg raises and progressions.

4. Superman hold. This classic pose is the opposite of the front lever, as it is performed with the body facing downward. Still, it stresses the fully extended arms and shoulders, the core and back muscles, the quadriceps and hamstrings, and will make the front lever easier. See chapter 2 for the description of the Superman hold.

5. Windshield wipers. This exercise is a good example of a leg and core workout that will help prepare you for the front lever. The hips flexors are also engaged, and all of these muscle groups will need to be strong to hold your body horizontally. See the previous section for the description and progressions of windshield wipers.

6. Back lever. As one of the six major exercises covered in this chapter, the back lever is a standard among calisthenics athletes, and even though its position is the opposite of the front lever, it is excellent preparation. See the previous section for the descriptions and progressions.

6 Exercise Routine to Master Front Lever

Perform the six exercises in sequence to complete one cycle. Rest for one minute between each exercise. Perform four cycles, with a two-minute rest between cycles.

Repeat the routine every second day, for example, Monday, Wednesday, Friday, then take the weekend off for additional rest and recovery. It is essential to allow rest days so the muscle cells and fibers can rebuild.

Exercise	Repetitions	
1. Dragon Flag	10	See description.
2. Elbow Lever	12	See description.
3. Lying Down Leg Raises	12	See description.
4. Superman Hold	1	30 seconds, see description
5. Windshield Wipers	10	See description.
6. Back Lever	1	25 seconds, see description

Planche

A planche is an advanced calisthenics pose that is generally reserved for highly conditioned athletes and gymnasts because it requires excellent balance and considerable upper body, arm, and shoulder strength. The planche position is achieved by the gymnast raising his or her body in the air with arms that are straight and fully extended, leaning forward for balance, and maintaining a horizontal position, with head, body and extended legs fully aligned.

Targeted muscle groups. The anterior deltoid in the front part of the shoulder is the most important muscle used in this exercise, along with the pecs in the chest, the biceps and triceps of upper arms, the wrists and forearms, as well as the abdominals and other core muscles, the upper and lower back and the glutes. Overall, it's a total body workout, but it's brief since you only hold it for a few seconds in many situations. Professional trainers strongly recommend that the planche exercise be approached with caution and by working up through progressions.

Progressions. The most basic progression begins with you assuming a plank extended arms position, like the start of a push up, but with your body leaning forward and your shoulders placed ahead of your hands. Then, keeping on your toes, widen your legs. Practice holding this position. Next, begin the same movement, but with your feet up on a bench or chair. For the next progression, move the chair or bench closer to your arms, so you can bend your legs as you continue to lean forward. Eventually, have only your toes on the bench, so more you support more weight by your forward-leaning arms.

- The next progression is called the tuck planche hold, or floating crane. From the previous position, curl your legs and tuck them under your arms, but keep your feet elevated on the bench. Next, it's time to perform the crane again, but now pull your feet off the bench, so you are now fully supported by only your arms, wrists and hands. Subsequent progressions involve extending one leg to the rear, while keeping the other leg tucked up to your chest. Pull the leg back into the tuck and extend the other leg. Once you master this, you may try extending both legs.

- Another progression variation is based on a leg straddle. From the elevated push up plank position, spread your legs wide, then practice lifting one leg at a time as you lean forward to shift most of your weight to your arms and shoulders. Alternate the raised legs.

You should see these planche progressions demonstrated, and there is a good video demo here: <https://gmb.io/planche/>

Routine for Planche Mastery

These preparatory exercises for the planche pose will help to develop the muscle groups that are needed to build-up and be able to effectively perform this challenging calisthenic position correctly, in good form. The routine is shown below, following these exercise descriptions.

1. Frog stand. This is a fundamental pose that initiates balancing on your hands. It develops balance and builds strength in the wrist, forearms, upper arms (especially the triceps) and shoulders (especially the front anterior deltoids). It also tenses the back and the core. Begin on your hands and knees, and lean forward to shift your weight onto your hands. Bend your elbows slightly, and bring your knees to rest on your upper arms, just above your elbows. Lean forward carefully, being sure to maintain balance, and lift your feet off the floor. As you slowly roll into position, your head should be face down and close to the floor. You partially carry your upper bodyweight by your knees resting against your elbows, but you suspend your entire weight by your hands, wrists, arms and shoulders.

Progressions. Given the simplicity of the frog stand, there are no progressions, except to hold the position when the knees come up over the elbow, and the weight is being shifted to the arms and hands. Lift one foot, lower, and lift the other foot, and repeat several times, before rolling slowly forward to perform the position.

Here's a good demo: <https://www.youtube.com/watch?v=fAg1ZlngaMo>

2. Pseudo planche push up. This movement is far easier than the planche, since the weight is carried by the arms and legs, as in a traditional push up. In fact it is almost identical to a regular push up, except the hands are turned to the rear (fingers pointing towards your toes). There is a leaning forward, so the hands are behind the shoulders, as in the planche, but the legs are supported on the toes; there is no raising of the legs off the floor.

Here's a brief demo video: <https://youtu.be/9PPzcbe-h-4>

3. Windshield wiper. This is the exercise presented earlier in this chapter in the section on the back lever: you lie on your back, raise and extend your legs to point to the ceiling, and slowly swing your legs from side to side, challenging your core, hip flexors, and glutes. Need the video link? Here it is: <https://fitnessapie.com/dragon-flag/>.

4. Tuck planche hold. We explained the tuck planche hold earlier in the first part of this section; it's one of the progressions, and there is a link to a good video demonstration. In summary:

From the push up position, curl your legs and tuck them under your arms, but keep your feet elevated on the bench. Next, it's time to perform the crane again, but now pull your feet off the bench, so you are now fully supported by only your arms, wrists and hands. Subsequent progressions involve extending one leg to the rear while keeping the other leg tucked up to your chest. Pull the leg back into the tuck, and extend the other leg. Once you master this, you may try extending both legs.

5. Dragon flag. This is one of the best exercises to strengthen the core, especially the abdominals. When fully extended, the dragon flag position replicates the extended legs essential to the front lever pose: If you can hold the dragon flag, you will be able to keep

your legs extended horizontally. See the back lever section for the description and progressions.

6. Wall-assisted handstand push up. The wall-assisted handstand was explained in the previous section on the back lever. Go back and review the progressions and techniques. Once you are ready to try the handstand push up, return to the wall-assisted handstand, but instead of holding the pose with arms fully extended, lower yourself slowly downward as far as you are comfortable. Pause, and then push yourself back up by extending your arms. Be sure to keep your feet in contact with the wall to maintain balance, and be careful not to lower yourself too far, especially when beginning this exercise: It's better to lower your head halfway down and then push back up than to lower all the way to the floor, only to discover you can't push back up.

6 Exercise Routine to Master the Planche

Perform the six exercises in sequence to complete one cycle. Rest for 40 seconds between each exercise. Perform four cycles, with a two-minute rest between cycles.

Repeat the routine every second day, for example, Monday, Wednesday, Friday, then take the weekend off for additional rest and recovery. It is important to allow rest days so the muscle cells and fibers can rebuild.

Exercise	Repetitions	
1. Frog Stand	1	12 seconds. See description.
2. Pseudo Planche Pull Ups	8	See description.
3. Windshield Wipers	10	See description.
4. Tuck Planche Hold	1	8 seconds, see description
5. Dragon Flags	8	See description.
6. Wall-Assisted Handstand Push Ups	6	See description

Human Flag

The human flag calisthenics hold is an extremely difficult pose: The athlete grips a vertical pole and holds the body parallel to the ground, or slightly elevated, with no additional support. When the pose is performed correctly, the legs and body form a straight, nearly horizontal line. The human flag hold requires considerable upper body strength and is not recommended until you achieve considerable upper body strength. Be careful: If you are not conditioned to perform the human flag, there is a risk of shoulder injury.

Targeted muscle groups. Muscle groups that are engaged focus on the upper body, and include the arms and shoulders, the chest and the core (especially the frontal abdominals and laterals).

The full human flag places both hands on a vertical bar, but the first progression allows one hand on a horizontal pull up and the other hand on the vertical support pole:

Progressions. For the first and easiest progression, each up and grip a pull up bar with one of your hands. Place your other hand on the vertical support beam and extend both arms to

full length. Press into the support beam with your lower (vertical pole) hand, and pull your legs and upper body up by pulling with your top hand. Do not bend your elbows since keeping your arms straight will add more strength. Now elevate your hips by pulling them up in the air.

- Kick your legs forward; this will help to raise your hips. Shift your bodyweight away from the vertical pole as you apply pressure to the vertical pole. Tuck in your knees towards your chest to reduce the downward pull on your hips. Maintain this position to strengthen the upper body muscle groups; you will need this level of strength to perform the full human flag pose.

Progressions. The next progression is the vertical human flag, a good preparatory practice before attempting the full horizontal human flag. It demands less upper body strength to achieve the hold. Plan to practice and perfect the vertical human flag before trying the horizontal human flag. Maintain the same grip as before, with one hand on the bar and the other on the vertical pole. Or, if you are physically capable, both hands are placed on the vertical pole. Either way, make your grip and raise your legs and hips as in the first progression, but now continue to pull your feet upward and point them straight up. At the same time, tilt your head and upper body downward.

- To ease into a closer progression to the full human flag, begin from the vertical flag position and slowly lower your legs towards the horizontal. Raise your head and shoulder so that your body is in a straight line.

To perform the full human flag pose, grip the vertical pole with both hands, one above your head, the other below, with arms spread to a wide hold. Press the lower hand against the pole and pull with the upper hand as you kick up your legs and extend them outward. The video demo will make these movements clear.

See the progressions: <https://www.wikihow.fitness/Do-a-Human-Flag>

Video demo of the full human flag: <https://www.youtube.com/watch?v=66ZIZ44s944&app=desktop>

Given the importance of building upper body strength to perform the human flag, a set of build-up exercises follows:

Routine for Mastery of the Human Flag

These preparatory exercises for the human flag hold will help to develop the arms, shoulders, and upper body muscle groups that are needed to build-up and be able to perform this extremely difficult calisthenic position correctly effectively. The routine schedule is shown below, following these exercise descriptions.

1. Lying down leg raises. This is an excellent exercise for the abdominals, as well as the lower back, glutes and hip flexors. It is easier than the dragon flag, so give this priority if you are a beginner and are working to strengthen your abs. The legs are lowered and raised, fully extended, to pull the core muscles and tense them. Refer to chapter 2 for the description of lying down leg raises and progressions, or see the demo video: <https://www.youtube.com/watch?v=JB2oyawG9KI&t=9s>

2. Muscle-ups. This is an advanced bodyweight calisthenics movement that combines an extended pull up with a dip; it begins with a radial pull up, which is faster than a standard pull up, to create momentum, and is followed by pulling up further to get above the bar, and then pushing up until the arms are fully extended and the waist is at the level of the bar. The transition from pulling up to pushing your body up is achieved by flexing the wrists, straightening the elbows and pushing straight upward. The upper body is leaned forward for balance.

See the description of muscle-ups earlier in this chapter. Review the progressions, and see the video demo for detailed instructions: <https://www.urbacise.com/exercise/muscle-up/>

3. Pseudo planche push ups. This movement is far easier than the planche since the weight is carried by the arms and legs, as in a traditional push up. In fact, it is almost identical to a regular push up, except the hands are turned to the rear (fingers pointing towards your toes). There is a leaning forward, so the hands are behind the shoulders, as in the planche, but the legs are supported up on the toes; there is no raising of the legs off the floor. Here's a brief demo video: <https://youtu.be/9PPzcbe-h-4>

4. Max planks. The max plank calisthenic pose benefits the core, especially the abdominals, the serratus anterior side muscles, the upper and lower back muscles, and upper body, as it challenges the chest and shoulders. We've covered max planks in chapter 2. You can go back to review, but in summary:

- Begin by assuming a kneeling position, extend forward and rest on your forearms, with your elbows directly below your shoulders. Push your body up to form a flat plank. Tuck in your chin, tilt your pelvis upwards, and extend your legs fully to the rear, and rise on your toes. Do not raise your butt high in the air, which takes the tension off the abdominals, or sag your mid-body and put too much pressure on your lower back. Hold the position for 20 seconds, or up to one minute if you are able. Gently lower your body to the floor to rest, and pause before beginning the next movement.

Here's the video demo link: <https://www.youtube.com/watch?v=V8aRaCR8API>

5. Dips. We covered dips in chapter 2, so you can refer back to read the full description and progressions, but in brief, dips can be performed using a bench, a chair or dip bars. All are effective in isolating and challenging the triceps, which are the muscles at the back of your upper arms. Your deltoids and your core will also benefit since these muscles are tightened through the exercise. Regardless of what type of dips you perform, emphasize quality over quantity: it's more important to lower yourself completely, maintaining good form, than going fast to try for more reps.

To do dips with a bench, begin by sitting on the edge of the bench, and gripping the edges, so your palms are flat on the bench and able to support your bodyweight. Your legs should be bent, feet flat on the floor. Now slide forward off the bench and slowly lower your hips towards the floor. Keep your core, especially the abs, tight. Descend as far as you can, pause, and push all the way back up, being sure to feel your triceps tighten at the top. Repeat the required number of reps. The movement with a bar is similar.

Here's a link to the bench dip demo: https://www.youtube.com/watch?v=0326dy_-CzM

6. Crunches. Previous generations depended on the classic sit up for abdominal strength, but later, therapists and trainers encouraged switching over to crunches because they are less likely to cause back strain. Crunches are also a more efficient exercise because you tense the abs throughout the movement. In contrast, after you partially raise up doing a sit up, you are no longer challenging the abdominal muscles. In effect, crunches isolate and optimize the best part of a sit up.

Crunches are relatively easy and do not require lead-up progressions. Begin by lying flat on your back, with your knees bent and feet flat on the floor. Reach back and put your hands behind your head, just above your neck. Now tighten the abs, and raise your shoulders and upper back a few inches above the mat. Do not raise any higher: This is not a sit-up. Pause for a moment, and slowly lower yourself back down to complete one rep.

The primary lifting effort should be from your abs, not from your hands pulling your head and shoulders forward; the hand pressure should be secondary to assist the movement. Don't come up any higher than your shoulders and upper back being raised. Your neck and upper back can curl up partially, to relieve back strain. Once you are comfortable with these basic crunches, you can try variations, like raising your knees, or placing your arms across your chest instead of pulling from behind your head.

Here's a link to a video demo of the basic crunch and variations: <https://www.msn.com/en-us/health/exercise/strength/crunch/ss-BBtOpYM>

6 Exercise Routine to Master the Human Flag

Perform the six exercises in sequence to complete one cycle. Rest for 60 seconds between each exercise. Perform three cycles, with a five minute rest between cycles.

Repeat the routine every second day, for example, Monday, Wednesday, Friday, then take the weekend off for additional rest and recovery. It is important to allow rest days so the muscle cells and fibers can rebuild.

Exercise	Repetitions	
1. Lying Down Leg Raises	10	See description.
2. Muscle-Ups	4	See description.
3. Pseudo Planche Pull Ups	15	See description.
4. Max Plank	1	50 seconds, see description
5. Dips	15	See description.
6. Crunches	40	See description

Pistol Squats

The pistol squat is an advanced bodyweight calisthenics exercise; in simplest terms, it's a one-leg squat. The position resembles a pistol, which explains the name. It is popular among runners, but trainers caution that if done incorrectly, pistol squats can cause injuries. It is important to be properly conditioned before trying to do pistol squats. Be sure to benefit from the progressions and from the six exercise routines that help your preparation and conditioning. Pistol squats are defined as a unilateral leg-controlled movement calisthenic that brings together hip, knee and ankle flexions while building strength and body control.

Targeted muscle groups. Pistol squats benefit the legs, notably the quadriceps, hip flexors, hamstrings, and calves, as well as your glutes. The hamstrings at the rear of your thighs maintain your weight on your heels, for adequate balance. Your quads provide the power push and offer support for your knees. Your hip flexors and quadriceps are affected on the extended leg by sustaining the extended front position.

It's not all about legs and hips: the muscles of the core balance and stabilize your spine and knees to keep you from falling forward, or back, or from side to side. So having a strong core is essential to performing pistol squats in good balance.

The movement starts by lowering your body on one leg from a standing position, using your bodyweight for resistance. While you are lowering, the other leg extends forward in front of you. As you are lowering during this one leg squat, your hips, knees and ankle are the pivotal, or hinging points, and are subject to considerable stress.

When done entirely, the movement continues its descent until the hamstring muscles at the back of the thigh touches the calf muscle. As noted, the position resembles a pistol. You

then rise back up to a standing position to complete one rep. The extended leg remains pointing straight ahead throughout the exercise. You may perform consecutive leg reps, or the easier and more popular switching alternate leg reps: right, left, right, etc.

Progressions . Perform a normal two leg squat, with feet apart and arms extended forward for balance. Lower slowly to a sitting position with both legs engaged. Instead of stopping the descent when your thighs are parallel to the floor, continue down until your hamstrings are resting on your calves. Pause, then rise slowly back up. Become proficient with this exercise before advancing to the next pistol squat progression. To improve your balance, perform these squats with your feet closer together.

- Next, perform a usual two-leg squat, and pause at the lowest point. Instead of rising back up, extend one leg forward to assume the pistol squat position. Now rise back up with the leg extended, if you can do so. If it's a struggle to make it back up, assist yourself by using a chair or table for support or drop the extended leg to the floor to complete the pushing back up to a standing position. Over time, practice this progression until it's comfortable, and you should be ready to try full pistol squats.

Link to details and graphics: <https://wodtools.com/pistol-squats-for-beginners/>

Routine to Master Pistol Squats

The following six exercises will help build the leg strength necessary to perform pistol squats wholly and correctly. They will also strengthen the central core muscles, helping develop the balance you will need to hover on one leg. You will see that pistol squats are included among these exercises: if you are not ready, consider beginning with the pistol squat progressions.

1. Vertical jumps. This demanding but straightforward exercise is what the name describes: you jump up vertically, straight up in the air. On some occasions, the jumper lands on a cushioned box of a certain height as a test. It is sometimes thought of as showing off, but in fact, it is an effective exercise to build explosive legs strength and core power as well as endurance. It may also be used to measure the strength and power output of a gymnast or competitive athlete. To improve one's vertical jumping ability requires specific power jumping training.

Muscle groups worked. Jumping depends primarily on the leg muscles to power upward, especially the quadriceps for most of the power, and with an assist from the calf muscles as the jumper is about to leave the floor. Hip flexors are engaged as the jumper crouches down in preparation to jump. The arms, shoulders and core are also involved in providing momentum and contributing to balance.

To jump vertically, you bend your knees, but instead of descending in a squat, you slide your hips to the rear as you bend down and swing your arms back to the rear. Then in one motion, swing the arms forward and up towards the ceiling as you rise on the balls of your feet and explosively push yourself upwards with your legs.

- There are no progressions to this exercise, but you can improve proficiency with the other leg exercises in this routine, including squat jumps, jumping jacks and lunges. The best way to jump higher is to practice jumping, emphasizing form and technique as well as explosive power.

Link to demo video: <https://youtu.be/Wzwf0eDAMCE>

2. Walking lunges. As you read in chapter 2, lunges are an exaggerated forward striding, lunging forward movement that develops your glutes, quadriceps, and hamstrings. The hip flexors and calves are engaged and tensed as well. Lunge movements help develop balance.

The difference between lunges and walking lunges is simply the continuation of the movement: Instead of taking one long lunge stride forward and then stepping back to the starting, standing position, you continue to lunge with the other leg. So, you are moving forward, rather than forward and back.

Start in a standing position with feet together. Place your hands on your hips for balance, and take a long stride forward with either leg and lower the trailing leg towards the floor. The thigh of the front leg should be parallel to the floor, and the knee of your trailing leg should be close to the floor but not touching. Keep your back straight, trying not to lean too far forward. Be sure to inhale deeply as you lower and fully exhale as you rise back up.

This movement is familiar to most people—it involves taking wide forward steps, bending both knees, and lowering your back knee to the floor while keeping your torso upright and tall. Unlike static lunges, walking lunges are more challenging because you keep your legs moving, front, back, front, back, as shown in the video demo.

You may also do walking lunges by moving forward continuously, instead of forward and back. Bring your trailing leg forward and rise toward a standing position, and as you reach a full standing position, lunge forward with the other leg, letting the first leg trail and descend towards the floor. In summary, you will be executing an exaggerated slow walk, one lunge after another. Remember to keep your head up and your back straight. Continue to achieve a targeted number of walking lunge reps. Be sure to allow enough space to complete the exercise, but if you come to a wall, do an about-face and resume the walking lunges.

The best progression exercise is to perform the basic static lunge, with alternating legs lunging forward and then pulling back. Squats are also helpful to strengthen the legs and core and to improve balance.

Demo video link: <https://www.healthline.com/health/exercise-fitness/walking-lunges>

3. Jump squats. We covered this exercise in chapter 2, so refer back for a full description, but in summary:

Jump squats are a variation of the squat exercises for the lower body and benefit the same muscle groups. These are the quadriceps, hip flexors, glutes and calves. Compared to squats, jump squats require more significant effort and offer potentially greater challenges to your muscles.

As with squats, start by standing with your feet shoulder-width apart. Keeping your back straight, neither arching it backwards or forwards, extend your arms forward and lower into a sitting position. But now, instead of just pushing back up, jump upwards, ideally high enough that your feet will rise above the ground for a few inches. As you come back down, drop back down to the sitting position, and then jump back up again for the next rep.

4. Jumping jacks. These are resistance exercises that provide excellent cardiovascular benefits. Jumping jacks are an excellent conditioner for pistol squats. Refer back to the description in chapter 2 for full details, but in brief:

- Stand erect with your feet together or slightly apart, arms hanging loosely at your sides. In one smooth jumping motion, move your feet out to the sides, about shoulder width, and reach your hands high over your head. Jump back to the starting position, with feet close together and hands at your sides. Without pausing, continue the jumping and reaching cycle. Keep the jumps to the side smooth and light: do not leap up in the air, but just jump a short distance to the sides.

Good video demo: <https://www.youtube.com/watch?v=1b98WrRrmUs>

5. Duck walk. While the duck walk may be an awkward-looking exercise, it provides a great workout of the thighs, calves, hip flexors, and glutes, as well as the muscles of the knees and ankles, and is an excellent progression for pistol squats. It is a combination of

squats and walking and is more beneficial than squats alone since the muscles used are continuously engaged.

Begin the duck walk by standing with your feet separated, about hip-width apart. Your feet should be pointing forward and resting flat on the floor. Bend your knees and crouch down by sliding your butt back and lowering your hips until your thighs are parallel (or close to parallel) to the floor. Try to keep your head and chest up. Lean forward slightly, keeping your back straight. Extend your arms forward, if you need to, for balance.

Begin walking forward as you maintain a squat position, staying as low as you can. Take a step forward with your left foot, then step forward with the right foot, keep your weight on your heels. Continue to duck walk forward for the targeted number of steps, then reverse by duck walking backwards to the starting point. Alternatively, you may continue to walk forward if you find the reversal steps too difficult. If your knees hurt, raise up a few inches to relieve the tension in the muscles that support the knees.

You may see demo video here: <https://www.openfit.com/duck-walk-exercise>

6. Pistol Squats. As detailed at the beginning of this section, if you are ready to try them, pistol squats are included within the following exercise routine.

6 Exercise Routine to Master Pistol Squats

Perform the six exercises in sequence to complete one cycle. Rest for 60 seconds between each exercise. Perform two cycles, with a two-minute rest between cycles.

Repeat the routine every second day, for example, Monday, Wednesday, Friday, then take the weekend off for additional rest and recovery. It is important to allow rest days so the muscle cells and fibers can rebuild.

Exercise	Repetitions	
1. Vertical Jumps	20	See description.
2. Walking Lunges	20	See description.
3. Squat Jumps	15	See description.
4. Jumping Jacks	15	50 seconds, see description
5. Duck Walk	20	20 steps
6. Pistol Squat	6	6 each leg

Recommended Weekly Routines

Each of the advanced exercises in this chapter includes a “Routine to Master” table that lists six or seven interim exercises to master the advanced exercises, specifies the reps or times for each exercise, the rest times between the exercises and the rest times between the cycles, or sets.

The table headings also recommend weekly workout schedules that reserve three-days-per-week for workouts: Monday, Wednesday, and Friday, with Tuesdays, Thursdays, and the

weekends reserved for rest and recovery. Based on your personal preferences and priorities, you may select the days for workouts and rest and which exercise routines to perform.

For example, the following intermediate-level routines recommend exercises to focus on working specific muscle groups.

Intermediate Level 1 Routine

Day	Muscle Groups	Exercises
Monday	Core, arms, shoulders, chest	Front Lever, Back Lever
Tuesday	Rest Day	
Wednesday	Legs: quads, calves, core	Leg Raises, Pistol Squats
Thursday	Rest Day	
Friday	Core, arms, shoulders, chest	Planche, Back Lever
Saturday	Rest Day	
Sunday	Rest Day	

Intermediate Level 2 Routine

Day	Muscle Groups	Exercises
Monday	Core, arms, shoulders, chest	Front Lever, Back Lever
Tuesday	Legs: quads, calves, core	Leg Raises, Pistol Squats
Wednesday	Rest Day	
Thursday	Biceps, triceps, shoulders, core	Muscle Ups
Friday	Core, arms, shoulders, chest	Planche
Saturday	Core, arms, shoulders, chest	Planche, Front Lever
Sunday	Rest Day	

Let's move on now to chapter 4, and learn how to reduce your risk of injury during exercise and how to recover more quickly when they do occur.

Chapter 4: Avoiding Injuries, Faster

Recovery

Strategies to Protect Yourself From

Injury

Calisthenics is not a contact sport: there is no tackling or blocking, no heads or bodies crashing together. Calisthenics is also not a dangerous sport: there are no steep ski runs or bike rides over rocky trails. Calisthenics is generally considered safer than its close cousin, weightlifting. So injuries should be rare when practicing calisthenics, and they are rare, but like it or not, muscles and tendons can become overworked and strained or pulled. Overwork can also lead to debilitating fatigue. Too much intensive muscle-challenging exercise without recovery can weaken muscle fibers, causing weakness and leaving muscles more susceptible to injury.

The Importance of Rest

One of the best ways to avoid injuries is simple: rest as instructed. We've discussed the process of hypertrophy, which is the naturally-occurring destruction of muscle cells and fibers during exercise, followed by a repair and rebuilding process, as your body restores protein to the muscles, and the resultant repair adds more muscle mass than it replaced.

Less is more. It's hard not to do your bodyweight calisthenics intensely and often, but it's essential to avoid becoming addicted to working out. More does not mean better. Given a choice of working out intensively with a full overall body workout for two days in a row, or waiting up to a week to repeat that full-body workout, you'll be far better off waiting the week because your body needs *at least* several days for the full repair and rebuilding of muscle mass. Generally, two days

for a muscle group to recover is sufficient unless the damage is excessive; one way to determine is whether you've overdone it is when you are still sore after several days.

Rest and recovery. In consequence, we can't overstate the importance of rest at the appropriate intervals while you are working out, and especially on rest days when you are not working out:

- Observe the brief rests after every set of repetitions and the rest between cycles when you have run through six or seven exercises. It may only require resting for 40 or 60 seconds, but it's important. If you don't rest between sets and cycles, you not only risk injury, but you may not be able to perform the next set of reps effectively. Your form may suffer, and your performance will diminish.
- Observe the days of rest, so you do not work the same muscle groups hard on consecutive days. You should keep it down to three or four calisthenics workout days a week because you want to exercise hard, and then rest for a day (or two) if you want your muscles to recover and rebuild through hypertrophy.

Vary in muscle groups. Can you work different muscle groups on consecutive days? The answer is yes. For example, on Monday, you could focus on your upper body, challenging your arms, shoulders, and chest with pull ups, push ups and dips. Then, on Tuesday, build your legs by doing jump squats, max mountain climbers, lunges and jumping jacks. You could even focus on the mid-body core on Wednesday, doing max planks, lying down leg raises, the Superman hold, and hanging leg raises. Then on Thursday, you could repeat the upper body workout after the days of rest.

Working Out Smarter

Most injuries that occur while performing bodyweight calisthenics are the result of performing the movements incorrectly, or overextending your capabilities, lifting too much or pushing your muscles and ligaments beyond their limits.

Do it right. Every calisthenic exercise has a right way to perform its movements or to hold its poses. As you read the descriptions of each activity, pay attention to the instructions so that you know how to grip, reach, push and pull. If you are out of position, joints may become twisted and sprained, and muscles may be overworked.

Manage the weight. Lifting too great a weight can occur because, unlike weightlifting, your bodyweight is unchangeable. Or is it possible to lift or push a lower weight? Yes, by using techniques to offset some of your weight. Using rubber resistance bands can make you lighter, so can adjusting your position, like doing push ups against a wall, or by lowering yourself partially in a squat or wall sit. You can make bench dips easier by keeping your knees bent and your feet closer to you. Practice the progressions, which will gradually prepare you for the full exercise.

Wait until you're ready. If the exercise is too strenuous and you can't reduce your weight, don't do the exercise: wait until you're prepared for it. If you are a beginner, follow the beginner calisthenics exercises in chapter 2 until you have progressed sufficiently to try some advanced exercises in chapter 3. Again, benefit from the easier progressions. Patience will be rewarded!

Warming Up and Stretching.

Warming up before you begin to exercise is beneficial, as physiological studies confirm that warm muscles are less likely to be injured than cold muscles. Warming up increases the breathing rate, raises muscle temperature and stimulates faster blood flow by raising your heartbeat. Warming up readies your body for exercise, as it gradually loosens the muscles and joints. An excellent discipline to practice to avoid injuries is to warm up before each workout and be sure to cool down afterward. Warming up before starting your activity will also make the exercises feel easier.

How to warm up. Among the ways to warm up, one of the simplest is to perform easier versions of the planned exercises. Bend down and reach for your toe, do a few partial squats, do

some push ups against a wall, grip the pull up bar and pull halfway up a few times. Try to do accessible versions of each exercise on the day's schedule.

Get the heart rate going with a few jumping jacks; pause, then do a few more jumping jacks, or ride an exercise bike or jog in place for a few minutes.

How to cool down. Cooling down after a good workout is essential to slow your heart and breathing rates gradually. Do some light stretching or yoga moves and poses. Try to walk or jog slowly for several minutes after the workout. A post-workout shower is always a good practice.

When to stretch. Although it's commonly believed that stretching before working out will reduce the risk of injuries, there is no proof. Instead, forceful stretching may pull muscles that are cold and stiff. The ideal time to stretch is after the workout when the muscles, tendons and ligaments are warmed and more easily stretched. As mentioned, some yoga stretches and poses are good to do as part of the cooldown.

Some light stretching before the workout is okay if it follows warming up and is limited to slow, easy movements.

Common Calisthenics Injuries

Strains and Sprains

According to the Centers for Disease Control (CDC), most emergency room visits that are sports-related (about 29%) are from strains and sprains.

A sprain occurs when one of your ligaments is stretched or torn. Ligaments are tissues that connect your bones, holding the skeleton together. We usually experience sprains when we twist or turn our wrists, ankles, or knees the wrong way. With a sprain, we typically feel pain and suffer bruising and swelling, and possibly joint stiffness.

A strain involves your muscles or the tendons, which are the tissues that connect the muscles to the bones. Strains are caused when you overstretch the muscle or tendon tissues.

Symptoms of a strain include pain, weakness, and muscle spasms.

- A sprain or strain may be severe enough to see a medical professional. Signs of severe injury requiring a doctor's attention include severe pain, numbness, or swelling. If you can't put full weight on the injured area, you should see a doctor. Another reason for professional attention is having pain and swelling, or joint instability abnormality from a previous injury. But if none of your symptoms are severe, you can probably treat the injury yourself.

Sore muscles. Once called a “charley horse,” sore muscles following a workout can be common and are usually the result of overworking a group of muscles and causing inflammation. The soreness, assuming there are no underlying strains, sprains, or tears, is from a buildup of lactic acid in the muscle cells. Lactic acid is a waste product of metabolism and rarely builds up enough to cause discomfort unless muscles are overworked. Some serious calisthenics enthusiasts like the feeling because it is a reminder that they worked out hard. The soreness should go away after a day or two and can be partially relieved with anti-inflammatories like aspirin or ibuprofen.

More Serious Injuries

Protect your lower back. A common injury in calisthenics, and many sports, affects the lower back. Your back supports much of the weight in many movements and is subject to bending and twisting the lower and mid-body. The lower back lumbar vertebrae are subjected to most of that pressure. You can injure the disks that separate your vertebrae, resulting in a slipped disk, also called a herniated or ruptured disk, requiring professional medical attention.

The largest tendon. The Achilles tendon connects your calf muscle to your heel bone. It is your body's largest tendon, and because it is subject to considerable stress, it is prone to injury. Repeated pressures from running, jumping, even calisthenics

exercises like jumping jacks and jump squats can strain and inflame the tendon, causing Achilles tendinitis. Over time, and with continued stress, small tears can form in the tendon, a condition called Achilles tendonosis.

- These tendon injuries, like many others, may be treated with rest, ice, anti-inflammatories, and physical therapy (see below). Generally, surgery is not needed unless the Achilles tendon is ruptured. But injuries to this tendon can be painful and slow to heal, so be careful to avoid injuring it: ease up when you feel it straining or hurting. Prevention of an Achilles tendon injury is far better than waiting for it to heal.

How to Deal with Injuries

In most situations, a sprain or strain causes pain and swelling. The treatment's objective is to reduce or stop the pain and to slow the swelling. If the sprain or strain requires medical attention, the doctor may use a hypodermic to drain the fluid and immediately reduce the swelling. A steroid, like cortisone, may be injected into the injured area to reduce inflammation and pain.

Why swelling occurs. The body's natural defense when an injury occurs is to send blood and lymph to the damage, bringing antibodies and accumulating to create natural protection, as the pooling fluids form a cast-like compression. Despite nature's good intentions, the swelling can cause pain and discomfort, and by reducing swelling, we can speed the healing process. For situations when you can treat the injury at home, the R.I.C.E. procedure is recommended.

R.I.C.E. Professionals, from orthopedists to sports medicine experts and trainers are united in prescribing a four-step procedure called R.I.C.E. (Rest, Ice, Compression, Elevation), as the initial treatment for mild or moderate sprains and strains, and other injuries not requiring a doctor's attention:

Rest gives your body time to heal. Don't use or put weight on the injured joint, limb or body part: let it heal. In addition to resting the injured area, rest yourself, so your body can

dedicate its energies to heal the wound. Moving or aggravating the injury can cause more fluids to accumulate.

Ice can play an important role, especially soon after the injury, in slowing the buildup of fluids at the injury site. The ice held against the injury causes vasoconstriction, or tightening of the veins, arteries and capillaries, and prevents or slows pooling of the fluids that cause swelling. If ice cubes are not handy, a bag of frozen vegetables can work.

Compression by wrapping the injured area (for example, with a flexible Ace bandage) also helps prevent swelling by reducing the flow of fluids to the injury. It also helps keep the injury stable and less likely to move or shift around. Stability is key to encouraging healing by preventing further damage to the surrounding tissues.

Elevation reduces swelling and pain by using gravity to help drain the buildup of fluids. As long as you can do it comfortably, raise the injured arm or leg, and keep it up whenever possible. Use a sling to hold your arm up and steady; when sitting, place the injured leg on a chair or cushion.

Anti-Inflammatories. The other commonly recommended treatment is to take anti-inflammatory medications known professionally as NSAIDs, or Non-Steroidal Anti-Inflammatory Drugs, and known more familiarly to us as aspirin, ibuprofen, and naproxen. As the name indicates, these over-the-counter meds reduce inflammation as well as being effective pain reducers. Take as instructed on the package, and do not overuse.

Breathing During Exercise

Your first impression may be, “What, breathing during exercise? Of course.” But there are reasons to be aware of your breathing and use it to improve your performance. You are probably aware that when we breathe, we draw oxygen-rich air into our lungs. The oxygen is carried by the hemoglobin in our blood to enrich every cell of our bodies while also removing carbon dioxide and metabolic wastes.

The cells of our muscles are among the recipients of that oxygen. Their need for oxygen increases in direct proportion to the work your muscles are doing. Managed breathing during your calisthenics workout will deliver more oxygen to your muscles, more effectively remove carbon dioxide, and improve your performance.

There are three simple managed breathing procedures to remember, based on the principle of always exhaling on the exertion and inhaling on the less stressful movement:

1. As you begin a less stressful calisthenic movement, for example, as you lower in a push up, lower in a pull up, or lower in a squat, inhale by breathing in deeply, pushing out your diaphragm, and filling your lungs.
2. As you begin the return movement, like pushing back up in the push up or squat, or pulling your weight up in the pull up, exhale by breathing out forcefully, pulling in your diaphragm towards your spine to help empty your lungs.
3. You may pause your breaths for a movement between the ups and downs, but do not hold your breath at any time.

Next, chapter 4 discusses the role of diet in improving your strength, muscle mass, and overall health.

Chapter 5: Calisthenics Diet

You Are What You Eat

Quality. There is truth to the adage, “You are what you eat.” Our bodies consume, digest, and assimilate food in order to live. The quality of our lives and our health is relative to the quality of what we eat. Quality, in this case, does not refer to cost or exclusivity, but to the positive nutritional value each food brings to our bodies. Quality is also defined by the absence of undesirable ingredients and processing that diminishes nutritional value or adds toxic chemicals to our diet.

Quantity . Our health and well-being is also directly related to the quantity of food we consume. Weight is gained, maintained, or lost based on how many calories we take in and how many calories we burn. While each of us may digest and assimilate food at different rates, and we may also burn calories at different rates, at the end of each day, it’s the net caloric gain or loss that determines what the scale is telling us.

- Two-thirds of Americans are either overweight or obese, meaning their body mass index (BMI) is above 25 (overweight) or over 30 (obese). The BMI is a function of height, weight, and gender, and you can easily determine your BMI using a free calculator online. The objective is to be in the normal range of 18.5 to 24.9.

Is There an Ideal Diet?

Is there an ideal diet for those who are following an active calisthenics exercise routine? The simple answer is that as long as professional dieticians and other competent nutritional authorities recommend it, the diet will be suitable for calisthenics exercisers, with one adjustment: to build muscle mass, an increased intake of protein is recommended. That does not mean the elimination of carbohydrates or fats, which are essential for energy.

It may be hard to resist the diet programs' claims, which are competing for your attention with everything from cookbooks to classes to prepared meals shipped to your home. But despite their claims of medical endorsements and before-and-after photos, you can easily and inexpensively eat healthily, stay healthy, and manage your weight as you build lean muscle mass.

The Mediterranean Diet

A good diet is a balanced diet, rich in carbohydrates, proteins and fats, provided by a diversity of vegetables and fruits, whole grains and cereals, nuts and beans, fish and lean meat, low-fat dairy and eggs, and olive oil. A good, healthy diet emphasizes natural foods instead of overly processed foods. The ideal diet favors foods that are low in fats and which do not contain trans fats or hydrogenated fats, and which are not deep-fried. This diet avoids sugar in foods and beverages and lets you rediscover the natural sweetness of fresh and dried fruit.

The Mediterranean diet is the name of this natural, balanced, healthy diet. The professional consensus is that this diet, which is based on the centuries-old practices of long-lived, physically active residents of the Mediterranean Basin, is the healthiest for all people. This is assuming it is consumed in moderation, that is, in quantities that are within a reasonable caloric limit and will not exceed your daily calorie goal.

The Mediterranean diet, with some additional protein, is an ideal calisthenics diet.

What about alcohol? You may have heard that the Mediterranean diet permits wine and other alcoholic beverages, and studies suggest there are cardiovascular benefits, but only if you consume these beverages in moderation. That means that for women, no more than one glass of wine, or one bottle of beer, or 1.5 oz distilled spirits per day, or two glasses of wine, or two bottles of beer, or two 1.5 oz spirits per day for men. If you currently do not drink alcoholic beverages, many doctors recommend you not start.

Energy-Boosting Foods

Calorie Density and Nutrition Density . Given we need calories from foods to live, to have energy, to build and rebuild every cell and tissue and organ in our bodies, we need to pay attention to the quality of the calories we consume. But if the objective is to manage the number of calories we ingest, the strategy is to consume foods that will satisfy us and keep us filled longer. This where protein plays an important role because protein, especially lean meat, fish, nuts, beans, and low-fat dairy, is slow to digest and keeps us feeling satiated, or feeling full, longer than carbohydrates and fats. As far as carbohydrates are concerned, certain foods contain “empty calories” from added sugar and refined grains that contribute minimal nutrition but have many calories that far exceed your energy needs and are stored as fat. These sugar-laden foods digest quickly and fail to keep you feeling full. But it’s a different story with carbohydrates that are high in nutrient density and whose calories bring valuable fiber, vitamins, minerals, and contain protein. These include low starch vegetables like lettuce, asparagus, carrots, and broccoli, and whole grains, like oats, brown rice, quinoa, plus beans, sweet potatoes, corn and squash.

High nutrition density protein sources include lean beef, chicken, turkey and fish, like tuna and salmon. There are even differences when it comes to fruit. Eating the whole apple, pear, melon, grapes, oranges, kiwis and bananas provides natural fructose, for energy, plus valuable fiber, minerals and vitamins. But when the fruit is processed into juice and filtered, many of the nutrients are lost and the nutrient density is reduced greatly. Be especially careful to avoid juices with added sugar.

Meal Plans and Easy Meal Prep for Muscle Building

Choosing what to eat to build muscle mass, and to protect your health and manage your weight does not have to be

complicated. People make far too much of the importance of one diet or another. We all see ads for diets that are high protein, high fat, low carbohydrate, low fat, or even the so-called diet of our cave-dwelling ancestors.

Relax, it's not that complicated. You are free to select the foods you prefer from a large selection of nutritious sources of the needed carbohydrates, proteins, and fats. So, the following plans are a guideline, not a strict, must-follow daily discipline. Remember to avoid empty calorie foods and stay away from deep-fried foods that absorb large amounts of oil and may contain hydrogenated fats and trans fats. Go for natural instead of processed. Go easy with the salt (use herbs instead) and ease away from added sugar. You'll be surprised to discover that fresh and dried fruits will taste sweeter and delicious within a few weeks of kicking refined sugar out of your diet.

The following meal plans are within the scope of the Mediterranean diet. It is adjusted with some added protein to give your muscles a boost for rebuilding and provide the necessary calories, correct ratios of carbohydrates, proteins, and fats (in the form of oils) to keep you going on high-intensity calisthenics days. It will help to ensure you rebuild muscle mass on rest and recovery days. The meals are also high in vitamins and minerals, as well as providing antioxidants.

What about coffee and tea? It's okay because new research has vindicated these beverages, which are high in antioxidants, as well as giving you a moderate energy boost. Just try to enjoy it without sugar or chemically-intensive artificial creamers.

Breakfast

Choose from these options, or mix as you prefer:

- Scrambled eggs (2) with toasted whole grain bread, yogurt ($\frac{1}{2}$ cup).
- Oatmeal ($\frac{1}{2}$ cup dry), plus $\frac{3}{4}$ cups low-fat milk, yogurt, prunes, raisins or nuts.

- Turkey bacon (3-4 slices) and eggs (1 or 2), cooked any style.

Notes:

- Eggs may be pan cooked with a thin film of butter (rub the stick of butter on the pan rather than melting a chunk), or the eggs may be boiled or poached.
- Oatmeal is high in protein and fiber, and provides cholesterol-lowering benefits. When dried fruit, nuts, and flax or chia seeds are added, it is called muesli. (Granola is similar but usually contains sugar.) Oatmeal is gluten-free.
- A $\frac{2}{3}$ cup serving of Greek or Icelandic yogurt adds 16 to 19 grams of protein, so consider adding this type of yogurt to oatmeal or as a side to a serving of eggs. Use fat-free or low-fat versions. Another advantage of yogurt: live bacteria cultures that support the microbiome, to improve digestion and the immune system.
- Additional protein may be obtained with lean turkey bacon: choose all-natural, minimally processed, with no additives. It may be pan cooked or broiled.

Lunch

Choose from these options, or mix as you prefer:

- Grilled chicken breast, with sweet potatoes, or a side salad with olive oil and vinegar, or a few sticks of celery or carrots. Or consider a half avocado to increase feeling full, as well as adding nutrients and healthy oil.
- Tuna salad, with canned tuna in water or olive oil, chopped celery, herbs, and served over a large mixed salad or as a sandwich with whole grain bread. Use mayonnaise sparingly to save calories.
- Hamburger, made with lean beef (5% or 10% fat), and pan-cooked or grilled. Serve plain or on a whole grain bun. Optional: add a slice of low-fat cheddar or Swiss

cheese to make a cheeseburger. Increase the nutrition with a slice or two of tomato.

- For dessert, an apple, pear, slice of melon or a bunch of grapes will be a satisfying and healthier alternative to a sugar-based dessert.

Notes :

- Instead of chicken breast, you may use drumsticks or thighs, but be aware that dark meat is higher in fat content. You may also use sliced turkey.
- Instead of tuna, you may substitute any canned fish: sardines, mackerel, smoked trout, or kippers. Fish packed in olive oil has more flavor and adds healthy fats but is higher in calories than water-packed.
- If you are a vegetarian, there are meat-free hamburger options, including soyburgers and the newer beef-resembling vegetarian burgers.
- Another vegetarian option is to make grilled cheese sandwiches, either in a pan or by toasting the bread, then adding the cheese and placing in the microwave for a few seconds to melt the cheese.
- You can eat cheese without concern if you choose extra sharp cheddar, which provides lots of flavor in smaller quantities. You can also go for feta, mozzarella or parmesan, which are lower in fats. Goat cheese tends to be higher in protein and is easy to digest.

Mid-Afternoon or Post-Workout Snack

It's okay to snack between lunch and dinner but avoid the temptation to eat a doughnut or most pastries, which are made with refined flour, sugar, and trans fat-laden oil. Keep your snack natural and healthy with:

- A serving of peanuts, walnuts, pecans, or cashews, which can provide healthy oils and rich protein, along with carbohydrates for energy. Watch the portions: nuts

carry quite a few calories due to their oil content, so hold it to a handful or less than ½ cup.

- Some fresh fruit. As with lunch, enjoy an apple, a pear, a slice of melon, or a bunch of grapes. Fresh fruit will be a satisfying and healthier alternative to a sugar-based dessert.
- Protein bar made with nuts and seeds, oats and other whole grain cereals, ideally with no added sugar. Read the labels!
- Chocolate? As long as it's dark chocolate with at least 70% cacao, it is beneficial in moderate quantities. You may also have a protein shake, but check the ingredients, and avoid or minimize added sugar.

Dinner

You may choose from the same meals proposed for lunch, or if you prefer a larger dinner, try these options, or mix as you prefer:

- Grilled, baked or poached salmon with quinoa. Select a cut of lean salmon filet or salmon steak (horseshoe-shaped), and allow just under ½ lb per person, or just over ½ lb if you're ambitious. Quinoa is a high protein grain, but you can choose rice or even whole grain pasta.
- Mediterranean fish stew. Check online recipes, or try this: use a large pan or skillet to saute a chopped onion in olive oil, then add chopped squash or zucchini, a small can of diced tomatoes, some herbs, and then add ½ lb per person cod (scrod) or other white fish. Cover and simmer for 30 minutes and serve with potatoes on the side or over brown rice or quinoa.
- Grilled lean chicken, turkey, pork, or lean beef, served with potatoes, corn, peas, and/or broccoli, kale, or spinach. Boneless meat servings should be about ½ lb per person.

Notes:

- It's a good dietary idea to begin every evening dinner with a mixed salad, made with some of these components: lettuce varieties, celery, sliced mushrooms, chopped avocado, tomatoes, peppers, cucumber. Use a low-calorie dressing, or add olive oil and apple cider or balsamic vinegar.
- Starting with a salad not only ensures an adequate amount of vitamins, minerals, fiber, and antioxidants, but it serves to help fill you up, so you don't overeat other, more caloric foods. It's a recognized concept called "volumetrics." Starting with a bowl of soup can also play this volumetric, filling role.

Dessert or After-Dinner Snack

See the recommendations for the mid-afternoon or post-workout snack. We all like something sweet after dinner, but fruit can provide that satisfaction, without the empty calories of refined sugar. Also, consider the recommendation for dark chocolate, but be careful with the quantities.

How Many Calories? How Much Protein?

With the caveat that no two people have identical metabolic rates, or hormonal levels, or activity levels, it follows that each of us has a daily weight-maintenance calorie level. In most cases, it ranges from 1,800 to 2,400 calories per day. There are plenty of exceptions, especially at the higher end, where a large, physically active person with a lot of muscle mass could require many more calories.

When taking on an average 2,000 calorie daily level to keep your weight steady, those 2,000 calories should come from carbohydrates, protein and fats, which are the three primary food groups:

- Carbohydrates** for energy should account for about 60% of your daily calories, supplied by whole grains and cereals, fruits, and a diversity of vegetables. Eat lots of salads. For a 2,000 daily calorie goal, that means carbs

should supply around 1,200 calories, or 300 grams, based on 4 calories per gram of carbohydrates.

- **Protein** is essential to repair and rebuild your cells, including muscle cells and muscle fibers. It should add up to 20% of a 2,000 calorie daily quota, or 400 calories, which come from 100 grams of protein, based on 4 calories per gram of protein. Be sure to obtain your protein from a diversity of quality sources.
 - A typical diet, without heavy exercise and muscle-building goals, requires closer to 50 grams of protein per day
- **Fats** store energy and release it during hard workouts for an extra burst. On a 2,000 calorie diet, get 20% of your 2,000 daily calories with nuts, avocados, olive oil, and cheese. That 20% equals 400 calories, from 44 grams, based on 9 calories per gram of fat.

In addition to these nutrients, stay well hydrated by drinking enough water, especially before, during, and after tough workouts, with lots of sweating.

Muscle Building Diet For Vegetarians

Can a vegetarian diet meet your protein and energy requirements to remain healthy, maintain a good weight range, and be able to build muscle? It is possible but requires attention to the selection of foods, and on good planning. According to Esther Ellis, a registered dietician and nutritionist, writing in *Eat Right* (2019):

- “Well-planned vegetarian diets that meet energy needs and contain a variety of plant-based protein foods, such as soy products, other legumes (beans and lentils), grains, nuts and seeds can provide adequate protein for athletes without the use of special foods or supplements.”

A person who is a lacto-ovo vegetarian can include dairy and eggs in the diet, and can be assured of an adequate supply of quality, complete protein. This means that milk, yogurt, most cheeses, and eggs provide all 20 amino acids that are needed

for our bodies to construct muscle-building protein, including the nine essential amino acids that our bodies can't manufacture and which need to be supplied in our diets.

- It's important to appreciate that most plant-based foods are deficient in some of those nine essential amino acids that must come from our diets. For example, cereals and grains are missing amino acids supplied by beans and other legumes; correspondingly, cereals and grains provide the amino acids missing in legumes. This is why some cultures make rice and beans a primary source of daily protein, especially when meat and dairy foods are scarce.

Are there any plant foods that supply complete protein? Yes, soybeans, quinoa, and buckwheat. The vegetarian diet should contain a diversity of plant-based foods that are rich in protein. In addition to soybeans (sold as edamame) and other soy-based foods, protein-rich plant foods include legume-family lentils and beans, plus nuts, whole grains and seeds. Whole grain cereals also contain four or more grams of protein per serving.

More Meals, Smaller Meals, and More Protein

If you are a vegetarian seeking to bulk up your muscle and want to ensure that your hard workouts will be rewarded with visible, tangible results, you should consume adequate quantities of quality protein at every meal. You may benefit from smaller, more frequent meals. These are suggestions for meat-free dietary practices:

- Include a good source of protein in every meal, and eat more times per day. If your lifestyle permits, try eating four, five, or even six small meals a day. Be sure to make those meals balanced, with necessary carbohydrates and oils for energy, and fiber, vitamins, minerals and antioxidants. Just be aware that your total amount of protein consumption, and all of the calories you consume, will determine your muscle growth and weight, regardless of how many (or how few) meals you eat every day.

- For additional complete protein, mix beans or lentils with cereals and grains, and if you practice a lacto-ovo diet, you may eat two eggs every day and have milk and yogurt, as long as you choose non-fat or low-fat, and eat cheese in moderation. Remember that Greek or Icelandic yogurt is strained to remove excess water, resulting in a higher protein level: 16 to 19 grams in $\frac{3}{4}$ cup.

Do You Need Supplements?

Building Muscle / Preventing Muscle Loss

When it comes to dietary supplements for calisthenics athletes, professional opinions are mixed. Despite their popularity, most supplements are considered unnecessary when you follow a balanced diet. However, there are some studies that encourage protein supplements for building muscle and also recommend amino acids, which are the building blocks of proteins. Writing in *Healthline* (2018), nutritionist Jillian Kubala notes that certain amino acids, called three branched-chain essential amino acid supplements, were found to stimulate recovery and improve performance among 16 athletes, as well as reducing fatigue. Eight studies concluded that the branched-chain amino acids also reduced soreness as well as promoting recovery. Separately, taking four grams of the essential amino acid leucine daily improved strength in a sample of non-athletic men.

Amino acids have been shown to reduce muscle loss and preserve lean muscle mass in older adults and conditioned athletes by preventing muscle fiber breakdown and helping muscle cell repair during a 10-day regimen of 15 grams of an amino acid mix.

Of questionable value. There are some studies cited in *Healthline* (2017) that encourage taking creatine supplements to build muscle mass, and other reports regarding protein supplements that contain whey, casein and soy protein. There are also supplements with protein extracts from chicken, beef,

and eggs. The research suggests that the supplements may build a small amount of extra muscle mass, but generally:

- Protein supplements are of minimal value if you are getting adequate protein in your diet.

Summing up . Keep it simple by basing your diet on natural, unprocessed (or minimally processed) sources of protein, carbohydrates, and fats. According to *Bodyweight Training* (2020):

- “There’s no complex system to follow, no pills or supplements to take, and no expensive pre-packaged food you need to buy.”

Avoid refined grains and cereals and chemically-loaded junk foods. Eat a diversity of vegetables, fruits, nuts, whole grains and cereals, and seeds, and when possible, make your choices organic. Keep the Mediterranean diet in mind and let it guide your dietary practice.

Let’s head now to the final chapter and see how you can maintain your motivation.

Chapter 6: How to Stay Motivated

Which is harder ? Getting started on a calisthenics program, or keeping it going, week after week, month after month? Becoming motivated, and staying motivated, will be the driving forces that will take you from the beginning phases of bodyweight calisthenics to the formation of a life-long discipline of fitness and strength, and the creation of a muscular physique you can be proud of.

Manage Your Motivations

Getting started. This phase shouldn't be all that hard. You're excited about discovering calisthenics and what it can do for you. You want to get into shape, you want to build larger, well-defined muscles, you have this book of easy-to-follow instructions and demos, and there are no gyms or fitness centers to join, and no equipment to buy, except maybe a pull up bar. You can start at a comfortable pace, do as many (or as few) reps, sets, and cycles as you want, and you can gradually work your way up to more outstanding efforts and more tangible results.

Keep it going. Working out several times a week (or more), week after week, month after month, takes a different kind of discipline: it takes strong motivation to drive the persistent effort to get into that 30 or 40 minutes and give it your all. Over time, your initial enthusiasm may dwindle, and you will need to reach deep inside your psyche for the energy, drive and commitment you need to become a dedicated calisthenics athlete. Here are some recommendations to keep yourself motivated to become a dedicated calisthenics athlete.

Have a plan. It's best to know what to do and how to do it. This book provides the plan you need as a beginner in calisthenics and further provides the progressions that will help you expand your exercises to the more advanced. Use the planning in chapter 2 and become competent in those 20 calisthenics exercises before moving to the advanced level

exercises. Become familiar with the plan, follow the plan and you will make the progress that will keep you motivated.

Manage Your Expectations.

It takes time. Calisthenics, like any serious training and conditioning routine, takes time to achieve tangible results. While there are immediate benefits after a good workout, like feeling pumped up and the glow of the beta-endorphins “high,” these only last for a few hours and may be forgotten when it’s time to hit the mats and the bars again.

So give it time and do not expect immediate results. The hypertrophy process of rebuilding muscle cells takes place at the microscopic level, but gradually, with good workouts interspersed with rest, those repairs will add up. So you may experience some good muscle toning and have a good feeling after each workout, but be patient. Expect visible, measurable muscle mass improvement on a longer-term basis.

Have realistic goals. While you can be inspired by the impressive physiques of the trainers and other calisthenics “rock stars” you see in the photos and demo videos, be realistic and do not expect to build muscle like they have until you have worked out as they have. As we’ve said, you get out of calisthenics what you put into it.

Measure your progress. Yes, the daily changes will be invisible, and even if you look and feel pumped up and toned after that third set of a cycle, that’s due to fluid buildup, as blood pools in the muscles to bring more oxygen. Assessing real progress involves a tape measure, a scale, and a mirror. Take an assessment each week, and over the coming weeks, you should start to see some improvements. But it will be after two or three months that you should be measuring and seeing real progress, as well as over the months and years to follow.

Manage Your Attitude

It takes commitment. Ask yourself how much you really want to build lean, hard body mass, get strong, and be in

excellent overall shape. Then turn that desire into commitment. Resolve that you are in this for the long haul, and now is the time to stick with it. Dedicate yourself to becoming a dedicated calisthenics athlete, and remind yourself of this dedication each time you question whether today's workout will happen. Do not fool yourself by thinking, "I'll get to it later." Have a set time for working out, and stick to it.

"Ya gotta believe." This expression was a great inspiration for New York Mets when Tug McGraw famously made that declaration in 1974 when the struggling Mets needed to turn around a losing streak, and it can be a great inspiration for you. It helped motivate the Mets to reach the World Series, and it can encourage you. Don't doubt the value and importance of building a great body and being as strong as you can be.

Ease into it. This advice was mentioned earlier, but it's worth repeating: there will be days when you think to yourself, "Not today." You may be tired, or more likely, you just don't feel up to working out. The secret to getting around this is to tell yourself that you will only do a few exercises, maybe a few reps, fewer sets, and perhaps a few yoga stretches. Then, once you get into the movements and start to warm up, you probably will be tempted to do a few more reps, another set, another cycle.

One day at a time. Take it one day at a time, and don't worry about tomorrow, next week or next month. This is the practice of being in the moment, giving the present your full attention. If you can take care of the present, the future will take care of itself. You may only be able to do two sets of eight push ups today, and that's cool. A month from now, you can see how you're doing, but don't worry about it now. Do your two sets of eight push ups and be proud of yourself: you are on your way.

Manage Your Behavior

Mix Things Up. If you're getting bored, insert some variety by changing your routine. Do more reps at a higher speed, and

fewer reps at a slower speed. Reverse the order of your routine. Do some progressions of advanced exercises. Add in more cardio with running in place or alternating high knee, jumping jacks, jumping rope, or shadowboxing.

Don't overdo it. Overextending yourself can lead to injuries, as well as pushing you towards burnout. If you are still sore after three days, you probably overstrained your muscles, tendons, and ligament. Your workout is not meant to be punishment, so treat your body with respect. It won't do you any good to tear a rotator cuff in your shoulder or strain a groin muscle. You will be more motivated to keep your calisthenics fitness program going when you are not hurting.

Don't show off. It can be tempting to keep up with others, but you don't know what shape they are in, and what is manageable for them may be too much for you. This occurrence may not be an issue if you are working out alone at home, but if you are in a park or gym, there may be a temptation to become competitive. Resist that temptation, but you may be encouraged or inspired by others to give it a bit more effort; just don't overdo it.

It's time now to move to the Conclusion and reinforce a few fundamental principles.

Conclusion

You can begin your new beginner's calisthenics fitness program today, starting at home, looking forward to feeling great immediately and beginning to look great sooner than you may realize. A new, more robust, impressive physique can be yours if you are prepared to work diligently and consistently to achieve your muscle and strength-building goals:

This book is your roadmap to the bodybuilding success of your dreams.

It's interesting that despite all the recent progress of science and technology, a 2,000-year-old exercise discipline has emerged as the ideal way to build muscles, increase strength, and help keep you healthier and more functional. The bulky, inflexible musculature of weightlifters is taking second place to the lean muscle mass, greater flexibility of movement, and more natural bodies achieved with calisthenics, using only your weight to provide all the resistance needed to build serious muscles and strength.

Instructions, Plans, and Schedules

Follow the exercise instructions and demonstrations to learn how to perform each of the beginner's exercises correctly, since the good form is essential for positive results and to avoid injuries. Begin with the beginner exercises, and start at the minimum number of movements; take longer rest periods at first, to ensure recovery before the next exercise. Work up gradually to the higher levels of reps, sets, cycles, and shorter rests between sets.

Take advantage of the plans and schedules which are designed to work different muscle groups on different days. Be careful not to use the same muscles on consecutive days: resist the temptation to push too hard. Provide adequate rest to let the hypertrophy rebuild gradually to make your muscles larger, stronger, and more defined.

Advance Responsibly

Proceed to the advanced calisthenics exercises with caution after you have mastered the beginner's exercises. Use the progressions to work your way forward gradually. Remember that a few repetitions of an activity performed correctly is far better than more reps, done carelessly and fast, just to get them done.

Prevent injuries by avoiding extreme efforts or positions, and when you feel pain, let it be a warning to ease up. If you have a strain or a sprain, work around it, and use the R.I.C.E. practice to speed recovery.

A Calisthenics Diet

Make a responsible diet part of your fitness and healthy lifestyle and be inspired by the Mediterranean diet to guide your healthy foods selection. Emphasize natural and unprocessed, and by choosing from a wide variety of whole grains, cereals, vegetables, fruits, nuts, seeds, and extra virgin olive oil. If you are into fish and meat, eat plenty of salmon, cod, and other cold-water fish, and keep the meats to the leanest cuts. For vegetarians, be sure to combine foods to get all the essential amino acids your body needs to make complete protein. Take advantage of the quality protein in dairy and eggs.

Stay Motivated

Keep up your enthusiasm by managing your motivation, and maintain a positive attitude, knowing it's a fair equation: you will get out of your calisthenics what you put into them. Use the recommendations to get you going on the slow days and keep you going when your enthusiasm slows down, and your routine needs variety.

In closing, I hope you will let this book be the catalyst, inspiration, and guide to a new calisthenics fitness and well-being lifestyle, and you will share your enthusiasm for this

book with others. Wishing you a successful, healthy, calisthenics-driven lifestyle.

— **Josh Miller**

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