

Strength training for women



**Create your dream body
without trainers and diets**

Samuel Greenberg

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Annotation

This book is written for women who want to build a beautiful body with toned buttocks, chiseled legs, a proud posture and a seductive back that defines the waist. I will tell you about the most effective exercises, I will easily and simply explain that resistance training is good even for “weak” women.

This book contains basic information on all sports sciences and methods, which is necessary for the correct start and productive continuation of classes. The book is written in simple language and will be understandable even for those who begin their athletic journey to the body of their dreams. After reading my book, words like muscle growth physiology, macronutrients, calories, and eating time will no longer be unfamiliar and difficult.

You will learn that you can eat deliciously and variedly and at the same time lose weight and maintain excellent shape. No grueling dieting or fasting, just delicious and healthy nutritional advice. In your hands, this book will become an assistant and a tool with which you can achieve any goal in building the body of your dreams.

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Chapter 1. Introduction to women's strength training

The history of weight training goes back decades. But even now, the importance of weight training for women is still greatly underestimated. In social consciousness, it is believed that the resistance training is for men, and women have nothing to do near heavy weights. The women remain misinformed about strength training and still believe that in fitness centers their place is in the cardio zone or next to a counter with multi-colored dumbbells weighing one to two kilograms.

Many females-beginners to power training still stay away from weights and intense training, relying on prejudices from the past.

But it is exercises with weights and resistance that allow you to achieve the longed-for muscle tone, beautiful body lines, toned buttocks, chiseled legs, proud posture and a seductive back that emphasizes the waist.

It is believed that cardio and endless long-term races in the gym with a predominance of multi-repetitive isolation exercises are exactly what women need. But the reality of female physiology is completely different.

All the women need to get in shape is a re-composition - to remove excess subcutaneous fat and build muscle. And for this purpose only resistance training is ideal. By and large, men and women do not need different approaches in the methodology and different training complexes, with the exception of some small nuances that do not cancel the general rules. Because for the goals of gaining mass and burning fat, fundamental exercises that are universal for everyone are suitable - simple, natural body movements, performed with additional load.

Strength training, and only that, is ideal for building muscle. And it has long been scientifically proven that this type of exercise is much more effective for fat burning than cardio training. Yes, aerobic exercise uses up stored calories while

you're on the treadmill or doing any other type of cardio workout. But the effect of strength training continues to do so long after exercise, while triggering protein synthesis to build muscle in your body. In other words, after strength training, you burn fat and build muscle at the same time.

Therefore, in the long term, it is strength training, and not cardio, that can lead you to the desired re-composition - it will allow you to gain muscle mass and remove fat over time.

Pros of strength training for females

Weight training won't make you masculine or turn you into the Hulk or Schwarzenegger after a month of training. Better tune in to the positive and think about how many benefits you will get by getting serious about strength training.

The first and most obvious effect of weight training with dietary control is body fat reduction. The more muscles a female has, the more these muscles will burn calories at rest. Simply put, muscles themselves speed up the metabolism, allowing you to burn more fat.

Next in line is the condition of the musculoskeletal system, that is, the health of bones, ligaments and joints. Regular strength training allows women to increase their bone density. At a young age, few people think about this, but every year for females this issue is becoming an increasingly relevant risk factor, given the likelihood of age-related osteoporosis - fragility of bones. Therefore, if you have made a decision now, in your youth, to go to the gym for beauty, then after years of training you will gratefully realize that exercises with weights have also given precious health.

Regular fitness exercises can help you develop healthy eating habits. You will learn to enjoy food and not eat when stressed or have psychological problems. You will know how much and what exactly you ate, and, most importantly, you will know why. With consistently high energy spending due to regular exercise, you will be able to afford more than your friends who do not work out in the gym. Now you will not be intimidated by an accidentally eaten cake or meeting with friends in a cafe.

If you do not leave the gym in a month or a year, but make it a part of your life, then with every year of training you will more and more notice the difference between how you look and how your peers who do not train with weights. With a properly organized diet, you will enjoy the health and beauty of your skin, hair, nails. And this is not only because you will know exactly your macronutrient norms, but also because your hormonal system will work like a well-tuned clockwork. By

choosing the basic strength movements in your training programs during and after training, you will receive an enhanced secretion of anabolic and fat burning hormones important for your body. Exercise will bring you healthy insulin resistance and remove your risk of diabetes and cardiovascular disease. You will keep youthfulness, fit and attractiveness. You will strengthen and increase your health.

An important psychological aspect will be your growing self-confidence. Self-confidence is a very infectious and attractive quality. As you begin to experience it in training, you will see how it will flow into other aspects of your life.

The efforts that you will spend on yourself during classes in the gym, the knowledge that you will absorb, the discipline that will become a part of your life - all this will pay off handsomely. Every dumbbell lifted, every repetition, every workout will be a great investment in your mental and physical health. Each small achievement will fall into the piggy bank of your personal growth.

Of course, it is very important that close people support you in your endeavor, so that the environment around you does not create an annoying background of disapproval.

You will have to deal with a huge amount of prejudice and unsolicited advice. They will tell you that strength training is not a woman's business that you will swing like a monster and lose all your charm.

Let me explain. For people with even a little knowledge of physiology, these statements seem ridiculous. Look around - even for the average man in the gym, the task of becoming big is sometimes far beyond his strength. Any female has ten and fifteen times less testosterone in her blood than the average man. And her initial, starting amount of muscle mass is much less than that of any guy of her age. Therefore, even if you copy the workout of your boyfriend or trainer one-on-one, you still will not be in danger of being reborn into an alien creature with a 50 cm bicep. This information is for you in order to appease restless people around you who are showing unwanted care.

Features of female physiology in strength training

It is well known that testosterone is a male hormone. But do not think that if women have less testosterone, then they will not be able to change their figure.

Women gain in percentage terms exactly the same amount of muscle mass as men, and they can add even more strength indicators in percentage terms.

Metabolic studies suggest that post-workout and post-meal protein synthesis in women is at least the same or higher than in men. This means that you are in no way inferior to men in your progress in the gym.

How else are women different from men? They differ in the level of subcutaneous fat. If a man cannot drop below 3% of subcutaneous fat to maintain hormonal balance, then for a female a level of subcutaneous fat of 12-16% is critically dangerous. Remember this and do not be guided by the photos of dried professional athletes - this is always a game with health, and such forms are not achieved naturally. Therefore, always keep in mind the primary goals, among which your women's health is the main and invaluable priority.

And also in your body as much as in men, one of the most important anabolic growth factors IGF 1 (insulin-like growth factor), and growth hormone itself - somatotropin - your body synthesizes three times more than the hormonal system of a man.

It will be a pleasant addition for you to find out that another sex hormone inside you can greatly help in sports progress. Many consider him evil, the hormone responsible for the gain of subcutaneous fat, and nothing more. But estrogen, this is what we are talking about, is capable of the following: it participates in the recovery of muscles after hard training, it is anti-catabolic and prevents the breakdown of muscle tissue, and it protects your joints, bones and ligaments from damage. And estrogen doesn't make you fat. On the contrary, it speeds up your metabolism.

Now you know that your nature, your hormonal system, your body are capable of significant changes! You must remember that from a physiological point of view, you have the same, if not more, potential for progress as the average male!

There is one interesting detail in the peculiarities of women's metabolism: during physical activity, performing exercises, females use more fat and less carbohydrates as fuel than men. And therefore, in percentage terms, they store energy in the form of muscle glycogen (carbohydrates stored in the muscles) less than men. The female body does not need so many carbohydrates to perform heavy workouts, so females can prioritize fat over carbohydrates in their diet. The World Health Organization recommends not to go below 20% of fat in the daily diet (this is about 0.5 g per kg of body weight), but this is the lower and critical limit of the norm, which you can easily increase depending on your well-being by reducing carbohydrates. Also, do not forget that the more fat a female eats (but does not overeat), the more she secretes testosterone and estrogen - both of these hormones are anabolic. A low-fat diet affects breast size in the direction of reduction, so you yourself understand that you don't really need a low-fat diet.

Next, I'll tell you about the differences between your body and men in training practice. In untrained men and women, the distribution of muscle fibers responsible for strength and endurance is initially the same in number. But the situation changes with the beginning of regular visits to the gym. In men muscle fibers are partially converted into fibers responsible for strength, and in women during training some of the fibers are converted into fibers responsible for endurance. As a result, all this translates into the fact that with the same power parameters as the average men, you can, while maintaining the intensity of the workout, perform more approaches and repetitions than a man. This is because your muscles have more fibers responsible for endurance. So you will not be bored in training.

In addition, due to the high levels of estrogen in the blood, you will be able to exercise longer and more often than a man. It is estrogen that slows down the rate of muscle breakdown, helps

with recovery and allows you to train to the extent that any man will already be over-trained and exhausted.

Women also need to make sure to perform exercises in full amplitude. If the full range of motion with a barbell or on a simulator, even with a lighter weight, leads to greater muscle growth in both men and women, then the strength characteristics differ. In men, the strength from an increase in amplitude increases slightly, but in women this parameter increases due to full movement in the exercise. Therefore, it is better for women not to use partial repetitions, but to immediately learn to perform the movement to the full length and depth that the exercises allow.

Women are inferior to men in training opportunities in an “explosive” style. I mean those workouts where the athlete trains with weights very close to their one-time maximum. Despite the fact that women have better endurance, their nervous systems are not as effective in strength training as men. Men are able to generate power effort faster. This is due to the fact that the area of the cerebral cortex, which is responsible for sending a nerve impulse to motor blocks (ligaments of nerves and muscle fibers), is much larger in men than in women. Therefore, when you decide to gain strength on a hard program written for the development of this particular parameter, do not be equal to men in the number of repetitions. They can do more, although, with the growth of training experience, this characteristic levels out. And if you decide that your vocation is powerlifting, then after several years of training, this parameter will easily catch up with the male opportunities in this sport.

The aforementioned feature of the female central nervous system leads to another interesting advantage in training, which, if used skillfully, will bring good results. Female muscles respond well with growth to controlled execution of movements in exercise at a slow pace. So don't turn your exercises into “ragged” and jerky movements. Do them more slowly, without sudden movements. It's more effective for you, and even looks beautiful from the outside.

Another feature that, with equal strength abilities with men, allows women to train more, is their ability to more easily endure metabolic stress. During metabolic stress, the female circulatory system delivers more blood and oxygen to the working muscles than the male. And therefore, less energy metabolites accumulate in the working muscle, such as, for example, lactate (lactic acid). Therefore, females can do the exercise longer than males.

And the rest time between approaches for recovery women need less than the “stronger sex”.

Moreover, women recover faster, not only between sets, but also between workouts. The female body provides a better supply of nutrients to the muscles, and the female’s muscles recover faster. Muscle fibers in women are not as susceptible to muscle damage as in men.

In terms of cardio, you probably know that there are medium-intensity workouts and high-intensity interval cardio techniques that have gained popularity in recent years.

Chapter 2. The basics of building strength workouts

Understanding of split workouts

Now, you need to delve deeper into understanding what strength training is, how it works and how to organize it so that it brings the most out of it. It's time to tell you how you will build your workouts throughout the week.

The distribution of the load on different muscle groups by day as part of your workouts is called a split. How you organize it for yourself depends on three factors. The first is the time you can spend a week on your classes in the gym. The second factor is your fitness level. The third factor is the goals that you set for yourself.

The number of days per week you can devote to training in the gym plays an important role. The frequency of your workouts will depend on this. And this time will dictate to you how to break your muscle groups into different workouts so that you can train your whole body in a week. You can choose from a huge number of splits. You can start with training the whole body at a time (full body workout), and you can continue by dividing your muscle groups in training by upper/lower, into muscles agonists/antagonists, deadlifts/presses, back/front strength chain, or individual muscle groups into every workout. Each of these splits has its own advantages and none of them is a priori better than the other - you should choose them based on your needs and possibilities of practical implementation. Now I will tell you everything in detail and give you examples of the main workout splits, and you can choose the one that suits you, based on your level of training and the tasks that you set for yourself.

Full body or circular workout

Training all major muscle groups in one workout is usually a beginner's prerogative and is most often characterized by one exercise per body part over several sets. One of the main reasons is that training volume is deliberately low for less painful adaptation of the muscle group and, most importantly, for adaptation of the nervous system. Rather, you are teaching your body to activate and recruit more muscle fibers, rather than gaining muscle size and strength. This approach requires a higher frequency of training, and since the volume of work is low, this training should ideally be repeated three times a week with a break of 48 hours between them.

Day	Group of muscles	Exercises	Approach	Repeats
1	all groups	1 from group	3	10-12
2	Rest			
3	all groups	1 from group	3	10-12
4	Rest			
5	all groups	1 from group	3	10-12
6-7	Rest			

Another reason it makes sense to keep volume and intensity low for a beginner is to minimize muscle soreness the next day. For example, the first intense leg workout can cause soreness in the legs for an entire week, which can scare a novice and not make him want to return to the gym after that at all. The table above shows how you can organize full body workout during a week.

2 day split workout for upper or lower parts of the body

When you are following a one-day circuit training split, the amount of work (sets and reps) for one muscle group is low. The next step in increasing efficiency is a two-day split, in which your body is divided into two parts, and you will have to do two exercises for each muscle group. Typically, in this split, the body is divided into the upper part (chest, back, shoulders and arms) and the lower part (quads, glutes, hamstrings, calves and abs).

Day	Group of muscles	Exercises	Approach	Repeats
1	upper body	2 from group	3	6-8, 10-12
2	lower body	2 from group	3	6-8, 10-12
3	rest			
4	upper body	2 from group	3	6-8, 10-12
5	lower body	2 from group	3	6-8, 10-12
6-7	rest			

By increasing the amount of work on each muscle group, you can train the selected group more intensely and more precisely. In addition, you can train one group in two exercises, but with different number of repetitions in sets; one exercise is aimed at increasing strength by 6-8 reps, the second, with less weight, will be more focused on volume and is performed for 10-12 reps.

Since you will be training more intensely in this split, you will need more rest days between workouts per muscle group. The table above shows how you can organize two-day split workout during a week.

3 day split workout - deadlifts, bench press and legs

Developing further, as you gain experience in performing exercises for one muscle group, you can already afford to train the whole body not in two days, but in three days. And although in training you can combine exercises in completely different combinations, but the most popular are the combinations when all the bench exercises are done together in one workout (chest, shoulders and triceps), and all the pulling exercises (back and biceps) are done in another workout. On the third day, legs are trained. You can pump abs and calves at the end of a workout on any of these days.

The meaning of this combination of pushing muscle groups is that in basic multi-joint exercises, many non-target muscles are involuntarily involved in the work. For example, doing the bench press, we purposefully train the pectoral muscles, but in addition to them, the deltoid muscles and triceps are included in the work. Of course, they all get a serious load.

An alternative would be to train the chest one day, the deltoids the next, the triceps the third. But this will seriously harm the process of their recovery, respectively, growth - they simply will not have time to rest, since they will all be included in the work on the following training days.

Adding a third exercise to a muscle group is a good way to increase the intensity and volume of the load on the muscle, purposefully applying the load to it from different angles for its fuller development. You also have more opportunities to diversify the number of repetitions in sets. Short strength sets with low reps at the start of the workout, while you are fresh and energized, are desirable.

You can perform this workout twice a week, with one break per week cycle, as indicated in the table. Or you can do one workout per week, taking one rest day between each workout. Here you are limited only by your work schedule and, of course, your ability to recover.

Day	Group of muscles	Exercises	Approach	Repeats
1	chest, shoulders, triceps	3-4 from group	3-4	6-15
3	back and biceps	3-4 from group	3-4	6-15
5	legs	4 from group	3-4	6-15
2,4,6,7	rest			

4 day split workout for large and small muscle groups

You should choose this split when you are already set for serious results in transforming your body. By training fewer muscle groups per day, you can increase the volume and intensity of your training - the most important factors in your further progress. A four day split workout in most cases fits into a week with three days of rest in it. But it can be performed in other formats: four days in a row and rest for the fifth, or two days of rest after four.

An effective training technique here is to perform a pair of training a large muscle group and a small one. For example, chest and triceps (again, as in the previous split, the press muscles are combined). This is done for the reason that the triceps is already well warmed up and pre-tired in chest exercises. For the same reason, the back muscles are trained along with the biceps.

Alternatively, you can combine muscle groups with opposite action, such as chest and biceps, back and triceps. Only then, make sure to put a rest day or leg day between the two workouts, and don't let one muscle group work for two days in a row.

When you train a large and small muscle group in pairs, training the large group first is mandatory. Small muscles fatigue faster, and if you load them first, they will significantly reduce the ability to train a large group after them. You will have to reduce the weight and intensity of your workout. In this split training, well-planned rest days become even more important. The table below shows how you can organize four-day split workout during a week.

Day	Group of muscles	Exercises	Approach	Repeats
1	Back and biceps	3-4 on group	3-4	6-15
2	Chest and triceps	3-4 on group	3-4	6-15
3	Rest			
4	Legs	5 on group	3-4	6-15
5	Shoulders	4 on group	3-4	6-15
6-7	Rest			

5 day split workout for a specific muscle group

This split is an advanced level. It allows you to load each part of the body separately on your training day, giving you the opportunity to increase the training volume and intensity to the maximum level, without fear of not saving energy for a small muscle group that should follow the main one. Each muscle group is trained after full recovery, without the possibility of any prior fatigue that would limit exercise volume and intensity.

As part of this split, you can train the muscle as intensely as possible, and this workout will go quickly enough. In addition, rest days fall on weekends, but you can shift the split within a week as you like, depending on your personal schedule.

When composing such a split workout, be especially careful about the correct distribution of the sequence of training muscle groups by day. You can't put chest on Monday, shoulders on Tuesday, and triceps on Wednesday. This will lead to insufficient recovery of these muscle groups. This is why in the split shown in the chart, these key muscle groups are separated by 48 hours. The same goes for the back and biceps. In the split shown in the example, the biceps and triceps are trained together.

You can customize your split workout further; for example, adding back deltoid exercises to your back day, since both groups are involved in the deadlift movement together. With such fine adjustments, you can build a split workout that is perfect for your goals and capabilities.

Please note that in all the splits listed, the tables did not mention small muscle groups such as abs and calves. Both muscle groups are capable of quick recovery and can be trained every other day. Just distribute them, alternating in your split workout as you like. The table below shows how you can organize five-day split workout during a week.

Day	Group of muscles	Exercises	Approach	Repeats
1	Chest	4-5 on group	3-4	6-15
2	Back	5 on group	3-4	6-15
3	Shoulders	4-5 on group		
4	Legs	5 on group	3-4	6-15
5	Biceps / triceps	3-4 on group	3-4	6-15
6-7	Rest			

Variable factors of the training process

You can change many factors of your training process in order to affect your muscles, which quickly adapt to the load.

The first and most important factor is weight gain. The second factor is the number of repetitions you do in one approach. And, of course, you need to decide on the working weight. I mean the weight of the barbell, dumbbells or the resistance of the simulator with which you will perform the working approaches that come after the warm-up.

If you offhand chose some kind of weight with which you can do not ten of our agreed repetitions with the correct technique, but at least two more repetitions, then you need to adjust and take more weight. The last repetitions in the range you choose should be hard for you.

The next variable that you can change as you see fit is the number of sets in each exercise. By increasing them, you can increase an important aspect called training volume (or total tonnage of a workout) without sacrificing intensity. In each approach, you can change the speed (tempo) of the exercise and thereby you can influence another important indicator that helps the muscles grow - the time the muscle is under load.

You can, at your discretion, reduce or increase the rest time between sets. By reducing your recovery time between sets, you will shift the focus of muscle training to endurance. And if you increase it, first of all, it is important for basic (multi-joint) exercises, you will give them the opportunity to complete recovery. This way you can train with more weights. For these exercises, a rest time of two to three minutes is optimal. If you feel that you haven't caught your breath or recovered yet, give yourself an extra minute of rest.

And of course, as you become more and more experienced in the gym, you can change or add exercises for each part of your body so that the load falls on a specific muscle group at different angles. By doing this, you will ensure that you can use as many muscle fibers as possible, and your muscle growth potential will be fully realized. In addition, you can add additional exercises for lagging muscle groups. For

example, if you want to focus on training the gluteal muscles, then squats and lunges alone will not be enough. You can safely include in this workout various types of hip movements, and gluteal bridge, and reverse hyperextension, etc.

Chapter 3. Exercise classification and selection

Complex or multi-joint exercises

All weight training exercises in strength training can be divided into two groups: complex (basic, multi-joint) and isolating (single-joint).

Complex exercises are those exercises during which more than one joint and more than one muscle group are involved (for example, deadlift, bench press, squat, or standing press). It doesn't matter with what kind of weight you perform this exercise - a barbell, dumbbells or a block trainer - these exercises are still complex. The term "basic exercises" came to fitness from weightlifting and powerlifting, where the base is called the golden three of exercises - the classic deadlift, squats and bench press. These are the main exercises for gaining muscle mass, which, in combination, are also exercises in which the human body is able to lift the most weight for itself. They give the maximum secretion of anabolic hormones during and after exercise, are the basis for building strength and mass in your body, and use the maximum amount of muscle fibers during their exercise. But not only this three can be called basic (complex, multi-joint) exercises. Conduct an experiment - performing any exercise, count how many joints you work. If there is more than one, then the exercise is complex.

By choosing multi-joint exercises as the basis of your split workout, you are providing yourself with the highest level of intensity in your training. How high it will be will now depend only on the weights with which you work. Why is that? Because complex exercises at one time allow you to use the largest possible number of muscle fibers - you spend less time in the gym, you save it. For a workout, it is enough for you (depending on the size of the muscle group) to perform only 3-5 basic exercises in order to create the necessary mechanical stress, which will entail the recovery process and an increase in protein synthesis, that is, muscle growth. Don't forget, too,

that the more muscle fibers you use, the more your post-workout metabolism will be spun up. Your body will need more calories to recover energy losses and build new muscle fibers. For you, this means, among other things, accelerated weight loss, mobilization of fat reserves. With an important caveat, of course, that the best results can be achieved only with nutritional control.

Complex exercises not only use the maximum number of muscle fibers. They are also responsible for the secretion of anabolic hormones in your body. Which ones? Testosterone is intensively produced, which stimulates the secretion of growth hormone, which in turn already triggers the secretion of IGF-1 (insulin-like growth factor). This rule is equally true for the male and female body. The difference is only in the volume of secretion. The female body produces testosterone in significantly smaller quantities than the male; we remembered this at the beginning of the book. The ovaries and adrenal cortex are responsible for the synthesis of testosterone in women. In men, 95% of testosterone is secreted in a separate gland, in the testes. Hence the difference in the volume of secretion - in women, the basal level of this hormone is about 10-15 times less than in men. The harder is the exercise, the greater is the release of anabolic hormones into the blood. With proper nutrition and recovery, it promotes greater muscle growth.

As an example, I will give you basic complex exercises.

- Bench presses with any incline of the bench.
- Push-ups.
- Back rows and dumbbell rows.
- Pull-ups and block traction.
- Overhead barbell and dumbbell shoulder press.
- Deadlifts of all types.
- Squats, lunges.

Take a look at deadlifts, for example. This is a multi-joint exercise that works both the hip joint and the knee joint. Even the ankle and back are involved. To perform this exercise, the

body will be forced to include several muscle groups in the work at the same time: the buttocks, hamstrings, quadriceps, traps, latissimus muscles, rectus extensor, deltas, forearms, and the entire spectrum of core muscles. I think the principle of complex multi-joint exercise is now clear to you.

Quite frankly, 8-10 basic exercises by themselves can build a beautiful, strong, sexy body just because absolutely all the muscles in your body will be involved in these exercises. Complex exercises will give you the greatest changes in body composition (the ratio of muscle tissue to fat) in the shortest possible period of time. And at the same time, your body will develop in the correct proportions, natural for you, given by nature.

If we assume that the volume of training and mechanical stress makes the muscle grow, then it becomes clear that complex exercises that make it possible to work with larger weights, which in turn create more stress and involve more muscle fibers, are more effective for this purpose. There is no magic in this. Just imagine how many muscle volumes and how many joints are involved in performing the same squat. With the correct technique, they create a volume of work that a single-joint exercise cannot create by definition. The same applies to strength training. Strength, by and large, is a concept that mostly refers to the nervous system, and only then to the muscles. In order to train your brain to send a more intense electrical signal to muscle contraction, you need a very powerful stimulus with fast feedback. That is, you have to bench or pull a very large weight. And in a single-joint exercise, this cannot be done. You also need to understand that no part of our body exists in isolation. Every muscle, every joint, every ligament and every bone is part of a subsystem that folds into larger systems. If we consider our body as one large motor system, and not as separate parts, then it becomes obvious to us that muscles and joints do not move in this system in isolation. Therefore, the first tool for strength and mass for you should be precisely complex exercises. And these exercises should almost always be done at the beginning of your workout.

Isolating or single-joint exercises

The whole concept of isolation training is that you turn off all unnecessary muscles from a specific movement and focus all your attention, all the training stress on only one target muscle.

So, isolation exercises are movements in which only one joint is involved throughout the entire range of motion. For example, bends for the biceps, bends of the legs for the biceps of the hip in the machine, extension of the hip for the quadriceps in the machine. If you are doing an exercise with the goal of getting into a specific muscle group - the middle head of the deltoid muscle or the short head of the biceps - all these will be isolation exercises.

What, then, are isolation exercises good for?

Let's remember the theory of muscle growth. Muscles repair and grow in response to micro-damage within their myofibril structures. This damage is caused by two types of stress with which you are already familiar. One of them is mechanical - it is caused by weight, volume of training. Basic exercises in a small number of repetitions, but with large weights, do well with this task. And the second is metabolic stress. It is caused by the breakdown products of glucose inside the muscle cell in order to synthesize new ATP molecules. The energetic process of anaerobic glycolysis begins to work in the cell from the 8-9th second of the start of its load and continues throughout the entire multi-repetition approach if you do 12-20 reps.

That is, you cannot perform such an exercise with a lot of weight. The working weight has to be reduced and the exercise performed in a multi-repetitive mode. Single-joint exercises are ideal exercises for this regimen. Moreover, during a multi-repetitive mode in an isolated exercise, in which the load is directed almost only to one muscle, you get the opportunity to pump - pumping a large amount of blood into the working muscle. That is, in an isolated exercise, it is much easier to achieve blood circulation in one small muscle than in a multi-joint exercise, trying to saturate several muscle groups with blood at once, working together. It is very easy to pump more blood into an isolated muscle than can be released from it. The

pump effect is an integral part of metabolic stress and is extremely beneficial in supplying nutrients and hormones to working muscles. In addition, the pump effectively stretches the fascia - the muscular layer, which will give your muscles extra space to grow.

And for all these purposes, at the end of the workout, after performing heavy, basic, multi-joint movements, it will be quite reasonable to put one or two isolating movements on the same muscle group. In addition, when working in basic exercises with large weights, mainly white muscle fibers are involved. But in isolation exercises with a large number of repetitions, you will be able to work out the red fibers that are untouched by the “base”, which are responsible for endurance. It is those muscle fibers, as you remember, of which, in comparison with the muscles of men, you can get more with training. Therefore, additional repetitions in these exercises will benefit you.

Chapter 4. Training tools for workouts

Approaches

With how to pick up your weight, we have already decided. We also figured out the repetitions. It's time to talk about approaches. Approaches are the number of times you grab a barbell or any other weight to complete a given exercise for your chosen number of repetitions. Usually it is recommended to do 3-4 approaches. More can be done. This will be potentially useful for practicing the technique of the selected exercise. But don't get carried away. It is better to "bomb" a muscle group with not one exercise in nine approaches, but three different exercises in three approaches each.

There are several ways to do sets. Standard "straight" sets can be defined as with the same number of reps and / or the same weight. "Pyramid" - when the weight increases in each approach and the number of repetitions decreases. Drop sets - when you reach muscle failure with a lot of weight, lose some of the weight and continue this approach without interruption, etc. All this can be tried to diversify your training process. But remember, all of these intensity-boosting techniques are just a flavoring to basic "straight" heavy sets of hypertrophy. Science has not proven the benefits of all of the above methods of performing sets over regular work in sets with a given number of repetitions in three to four approaches.

Supersets

Supersets are sequential approaches when you continuously perform two approaches for antagonist muscles or antagonist muscle groups. For example, you do a biceps bend set and immediately follow a triceps extension set. Or you consistently combine chest exercises with back exercises. For muscle growth, this combination does not give any gain, but it allows you to increase the volume of work in training and calorie consumption, since you do more exercises in less time. Keep in mind that for such complex combinations, you will have to occupy two training places at the same time: for example, bench press for exercising on the pectoral muscles and a

trainer for traction of a seated block for the muscles of the back. And in a room filled with people, this is not always possible.

Complex approaches

Complex sets are sequential, non-resting sets for muscle agonists or muscle agonist groups. For example, you perform a barbell row in an incline and then perform a row on a block machine. Both exercises involve the muscles of the back, but from different angles. The advantage will be time savings and calorie consumption, and the disadvantage will be that the working muscle group will be very tired and the intensity of its work will be low.

Pyramid-based approaches

They work like this: you either increase the weight and decrease the number of reps in each set, or vice versa - decrease the weight and increase the number of reps. This pattern is called a reverse pyramid. The main idea behind the pyramid-based approaches is to load both muscle fibers responsible for strength and muscle fibers responsible for volume in one exercise. But again, this all sounds good in theory, but there is no proven muscle gain benefit from this method. But it will help diversify your training, which is important for your nervous system.

Preliminary fatigue

Pre-fatigue sets mean that you first load the isolation exercise on one muscle group that you want to focus on in your workout. For example, do dumbbell dilutions on a bench (isolation exercise) before doing a bench press (complex exercise). Prior fatigue has no advantages in muscle growth, but no one forbids you to look for the most comfortable exercise routine for yourself in training.

Rest time between approaches

Rest is a very important training parameter. Too much or too little rest time between sets equally impedes progress in training. Resting too short will not allow you to continue to

perform the exercise productively, while maintaining high intensity - the muscles will not have time to recover from the previous set. Resting too long is similar to training for powerlifters - it will help you gain strength, but it will not be useful for working to increase muscle mass and will stretch your workout for a long time.

A general rule of thumb is between 30 seconds and 3 minutes. The extreme limit of thirty seconds of rest between sets is suitable for performing multiple repetitive isolation exercises aimed at achieving metabolic stress. A rest time of 2–3 minutes is better for doing heavy sets with low reps in multi-joint exercises. I repeat that you shouldn't look at the second hand of the clock without a break - focus on your well-being. If you feel that your breathing has recovered and your strength has returned, start the next approach. If you feel that you need another minute of rest, give it to yourself. But I hope you understand that going away talking on the phone or diving into Instagram for five to ten minutes between sets will be an unacceptable luxury and will turn into a workout for nothing.

Priority principle

Always carefully choose the first exercise to train muscle group of your choice. This exercise will be performed in an environment where the central nervous system is fresh and the muscles are full of energy and not fatigued.

This means that you will get the most out of the first exercise in this workout. For example, if in leg workout you have squats as the first exercise, and leg extensions in the simulator as the second, this means that you can achieve more progress in squats. Therefore, if you have personal preferences for a particular exercise in which you want to become stronger, then it makes sense to put it first. It is preferable that this be a hard, complex exercise, because it is able to handle a lot of weight with a “fresh mind”.

Here's an example: I'm not very strong in pull-ups and I want to improve this exercise for myself. With the advice I just gave you, in my back workout, I always put pull-ups the first exercise.

The same should be done with the muscle group, which, in your opinion, is lagging. If you train, for example, the back and chest on the same day, then the lagging behind should go the first muscle group, according to the principle of priority.

The principle of “time under load”

Time under load is the duration of a muscle being in constant, continuous tension during one approach. To make this time work for you as much as possible, adhere to a simple rule: you need to lift the weight quickly (without losing technique), and you need to lower it down in a controlled, slow manner. After reaching the bottom point of the exercise, you cannot relax the muscles and pause - you must immediately continue the exercise. Thus, you will be able to keep the muscle under tension for as long as possible during the approach.

This principle also has a downside. Using it, you will not be able to work with the most heavy weights for yourself. So don't play with this technique.

Eccentric phase

In simple words, the eccentric phase of the exercise is its negative part, that part of the amplitude when you lower the weight, when your muscle is actively lengthening under the influence of the weight. In negative movement, our muscles are strongest. And it is in this part of the amplitude that we are able to provide our muscles with the maximum stimulus to increase volume and strength. Also, the eccentric phase of the movement inflicts the most severe muscle damage on the muscles and can cause post-workout pain that may last for several days.

This is because our muscles, in a controlled manner, can lower more weight than they can lift. There is a double effect: the muscle tries to contract at the same time, not allowing the weight to fall, and at the same time it stretches. These effects simultaneously allow both muscles and ligaments to be strengthened.

While the positive part of the movement (concentric) allows, according to research, to increase the length of the muscle

fibers, the concentric (negative phase of movement) allows you to increase the diameter (thickness) of the muscle fibers.

Concentric phase

The positive phase of the amplitude of the exercise (concentric) is the part in which we lift the weight up. As surprising as it sounds, our muscles are the least strong in this part of the movement. Nevertheless, the positive part of the exercise allows you to build strength and mass, while at the same time fatigue and muscle damage in this part of the amplitude will be minimal.

Isometric phase

This is the moment of muscle tension, during which it holds the weight without moving the joint. That is, the force that the muscle produces is equal to the pulling force of the burden that it resists.

You will not need the technique of using the isometric phase in the first years of training. It can be useful to combat stagnation in strength performance and is used more often by powerlifters than by bodybuilders.

Neuromuscular communication

Let's go back to this parameter again. The connection between the brain and muscles is often referred to as "muscle feeling." It is achieved by mental focusing on the contraction of a specific working muscle in order to maximize its activation in exercise.

By doing heavy sets at 60-80% of their 1RM (one-repetition maximum), most people are able to increase the activation of a particular muscle group by concentrating on contracting it. This is called internal focusing.

There is also external focusing. This is a concentration on an external factor. For example, you focus on lifting the barbell, or you visualize that someone or something is helping you to lift. This approach helps in strength work with large weights. When lifting really heavy weights, focusing on the external factor is much more effective.

Why is the brain-muscle connection so important to you? Because when you learn to concentrate on a specific muscle group during an exercise, you are able to improve the technique of the exercise and, in part, activate the target muscle group more intensely. This will help you develop an understanding of each exercise - which major muscles are being performed. When recovering from an injury, a well-developed connection between the brain and muscles will also help speed up recovery.

Well, here we are with you and have sorted out the basic concepts of muscle work in training. This knowledge will be enough for you to confidently use it for constant progress.

It usually takes three to four weeks to feel positive changes in your strength characteristics after starting regular exercise.

If you follow your chosen meal plan, visual changes will begin to appear in 6-8 weeks. As you can see, progress in fitness is quite slow, but weeks add up to months and after six months there will not be a single person around you who would not notice how you began to transform.

But what if you had to skip a workout? There is no tragedy here! Yes, progress in training is going on quite slowly, but your body is not going to give back the achieved results so easily. For a couple of missed workouts, you will not lose anything from your hard work.

And if you get sick, catch a cold, or even have to skip workouts - in no case blame yourself for the missed classes and let your body recover from the illness.

The fact is that training in the gym is a targeted stress that we create to stimulate muscle growth.

And illness is also stress. So it is better not to show up in the gym during an illness, not to double the stress and load on the immune system of your body while it is busy fighting infection or inflammation.

Well, what if suddenly you are healthy, but you feel the accumulating fatigue after training? Yes, it happens - training with iron can tire our nervous system. What to do in this case?

Take yourself a week or two of complete rest from the gym. And don't worry about losing your shape. According to research, within two weeks of not exercising, muscles do not lose their muscle mass and strength characteristics. So treat your vacation with pleasure. You will return to the gym with new strength, fresh and with a desire to train!

Now, having the basic knowledge of organizing training, we can start a detailed study of the training of all muscle groups of your body.

Chapter 5. Shoulder muscles training

It is important for women who undertake weight training to understand the importance of uniform and proportional development of all muscles in their body. This approach ensures the development of strength results, health promotion and generally makes the growth of your muscles possible. The shoulders are the most telling example. Well-developed deltoid muscles give the woman the strength she needs to perform everyday household tasks, and also bring into visual balance the symmetry of the upper body with the lower one, minimizing naturally well-developed hips. The well-designed shoulders will give you a stately appearance and excellent posture.

The shoulders are made up of three muscles, which are commonly called “heads”. This is the front part, side (middle) part and back part. The function of the front head is to raise the arm up and rotate inward. The middle head is responsible for raising the arm to the side, the back one for turning the arm outward and taking it back. You can work out in exercises both several heads (parts) at once (complex multi-joint exercises are responsible for this), or each head separately, using isolating exercises. Your workout to target your shoulders to develop harmoniously should include both basic and isolation exercises.

Most of the complex (basic) shoulder exercises are push presses. In general, they are all performed in the same way: the starting point of the movement is when the weight is at shoulder height, palms facing forward. Press the weight straight up until the joints are almost straightened. It is impossible to fully straighten the joints (close) in any pressing movements; this can subsequently lead to their inflammation, damage and injury. After lifting the weight in a controlled manner, without jerking, lower the weight to your shoulders and repeat again.

Pressing movements activate all three heads of the shoulder to varying degrees, and are excellent exercises for working the entire shoulder as a whole. The bench press also allows you to

lift significant weight because multiple joints and muscle groups are involved in the movement. This contributes to a tangible increase in muscle volume and strength in the deltoid muscles.

Basic multi-joint exercises for this muscle group include:

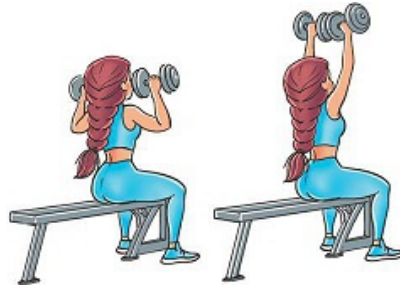
- Military barbell press (army press).
- Press the bar for the head.
- Press of dumbbells.

Isolation exercises help selectively target the deltoid head. Most isolation exercises are, to one degree or another, raising the arms. They involve lifting a weight or block from a hanging position to shoulder height with your hand, keeping your elbows still. Next, you need to control the weight down and repeat again.

Due to the fact that only one joint works in isolating movements and any head of the deltoid muscles is a very small muscle bundle, the weights in these exercises cannot be large, and the increase in training weights will not go quickly.

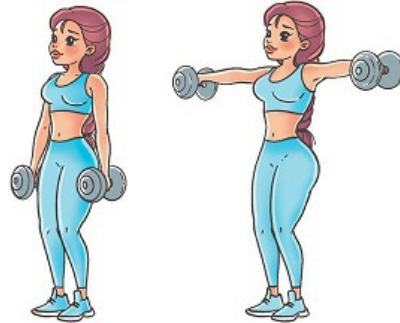
Exercises for the front deltoids

- Raising dumbbells in front of you (all variations: sitting, standing, bent over).
- Raising the block in front of you.
- Raising the bar in front of you (all variations: sitting, standing, bent over).
- Lifting weights lying on an incline bench.

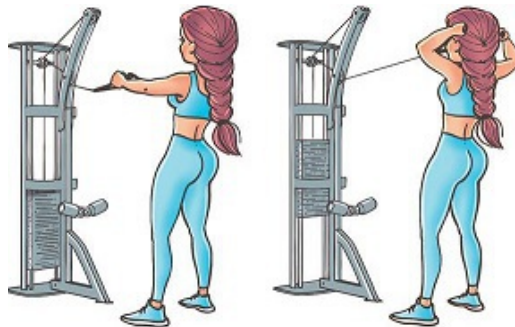


Exercises for the side head of the shoulder

- Lateral lifting of dumbbells with both hands - breeding (standing, sitting).



- Lateral dilutions with one hand (sitting, standing, lying).
- Lateral dilutions in the crossover.
- Pulling the block to the face with both hands.



Exercises for the back head of the shoulder

- Moving of hands to the sides for the back head of the shoulder in an incline (standing, sitting, lying in an incline).
- Moving of hands to the sides on a block in a crossover in a slope.
- Abductions of one arm on the block (standing, sitting, lying in an incline).
- Abduction of hands in the “Butterfly” simulator.

Additional shoulder exercises

In addition to exercises that directly affect the deltoids, there are a number of movements in which these muscles have a significant load, because in these exercises, the shoulders play an influential role, being synergistic muscles. In this case deltoids help the target muscle group perform the exercise, complete the bench press or deadlift. Be sure to include the following exercises in your program to give your shoulder muscles extra stimulation.

Exercises involving the front deltoids:

- Bench press on an incline bench (chest).
- Bench press on a horizontal bench (chest).
- Bench press on a bench with a reverse incline (chest).
- All kinds of push-ups at different angles.
- Push-ups on the uneven bars (chest-triceps).

Exercises involving the work of the rear deltoids:

- One-handed dumbbell row (back).
- Bent over barbell row (back).
- Rows of blocks (back).

To maximize the development of these muscles and create beautiful rounded deltas, your workout should consist of at least two complex pressing exercises and at least one isolating movement per head separately.

Approaches and repetitions

In general, 2-3 working approaches of 10-15 reps are great for most people for shoulder training. It all depends on your training experience, the level of training and well-being at the current moment, time and your goals.

If you are focused on maintaining your current form, concentrate on 2-3 approaches of 12-15 repetitions. If you need to build deltoid muscles, then reduce the number of repetitions to 8-12, increase the weights and do 3-4 approaches. If you want to make your shoulders stronger, then do 3-4 approaches of 6-10 repetitions.

You can of course combine these different approaches; for example, alternating sequentially exercises with a weight regimen in one workout, and in the next workout perform exercises in a strength regimen.

To train your shoulder muscles, the best approach is to do them once a week as part of a split workout. If you want to prioritize them, to tighten up, then you can try training this muscle group twice a week.

Remember that one hour is enough to train a muscle group - do not exercise for more than one hour.

Also, when training the shoulders, like any other muscle group, you must clearly understand that, no matter how perfectly your split is built, no matter how good the nutrition, you will not see any result if your training is not intense.

The best way to properly work your shoulders is to combine complex presses, performed in an explosive manner with heavy weights, and isolation exercises performed with flawless technique in a high-intensity style in one workout.

Chapter 6. Back muscles training

On your way to a perfect body and, of course, health, one must remember that the back muscles play a primary role in achieving these goals. A well-developed back will not only give you the coveted V-silhouette and stately posture, but also provide you with the functional strength you need in everyday life and support the health of the spine.

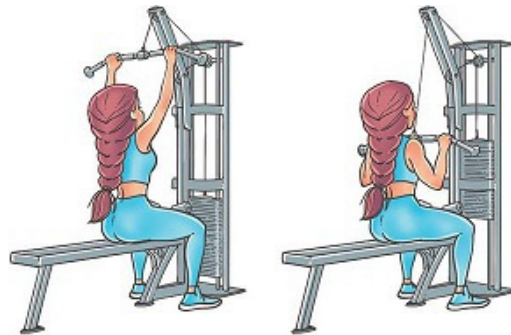
The back is made up of a large number of muscles, but I will concentrate your attention on the largest muscle groups that you will train: the latissimus, trapezius, and lower back extensors. When these muscles work, they work in synergy with the muscle of the shoulder and the small round muscle of the shoulder, which abduct and rotate the shoulder joint.

The function of the broadest latissimus dorsi muscle is to provide internal rotation and abduction of the shoulder. The function of the muscles of the longest and most powerful back muscle - the extensor - is to stabilize the back when bending over. The trapezius muscle raises the shoulder joint and rotates the shoulder blades upward.

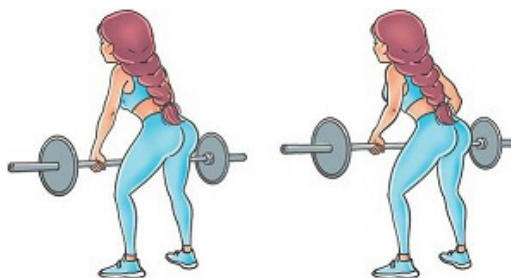
Back multi-joint exercises

Many of the complex (multi-joint) exercises listed below involve the teres major and the teres minor, the trapezius, and the latissimus. Include two or three exercises from this list in every back workout.

- Pull-ups (all types of grips, with different grip widths, with and without weights).
- Deadlift (all types, barbells, dumbbells, different grips).
- Rows of the upper block (all types of grips with different widths).



- T-bar rods (all types of grips).
- Rows of dumbbells (all types of grips, one hand and two).
- Rows on the seated block simulator (all types of grips, with different widths).
- Rows in incline position (all types of grips with different widths).



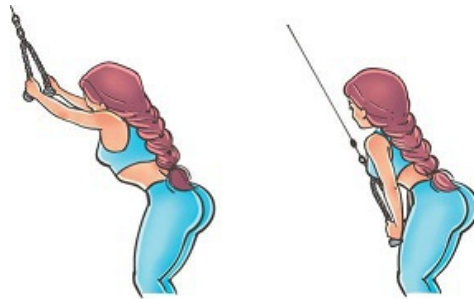
- One-handed seated pulldowns.

Back isolation exercises

For the back, there are several single-joint exercises that involve the lats and muscles of the center of the back, so they primarily participate in setting the shoulder joint in motion, lifting the shoulder blades and moving the elbows. Isolation exercises are also a great way to train your lower back muscles.

Upper and middle back

- Pull the block from above with straight arms while standing in an incline (pullover).



Lower back

- All types of back extensions (sitting in the simulator, lying down, lying on the ball, with weights, arms behind the head or crossed on the chest).
- Deadlift on straight legs (with a barbell, dumbbells, in Smith machine).
- Good morning barbell slopes.

Synergy in movements

In addition to basic movements in which the back muscles are directly involved, there are many exercises in which they act as synergistic muscles. In this case, the role of the back is to help the main target muscles lift weight.

Incorporate these exercises into your chest and shoulder workouts for even more intense back work.

- Pullover lying with dumbbells.
- Incline dumbbell benching.
- Block pull to the rear deltoids.
- Rowing the rod.
- Military bench press.

When adding back exercises to your workout routine, make sure to add at least three sets of upper and middle back exercises to your workout routine, and don't forget about one or two isolation exercises for your lower and upper back.

Approaches and repetitions

For the most part, 8-15 repetitions are well suited for training the back. There are equal parts of fast and slow muscle fibers in the back, both must be trained. Choose a pair of heavy weight exercises in which you will work with 8-10 repetitions, for the rest of the exercises 12-15 repetitions with a little less weight. Perform each exercise after warm-up in 2-3 working approaches. Sometimes include low-rep approaches with 6-8 repetitions with heavy weights to increase strength.

Additional muscles that are trained along with the muscle groups of the back

Rotators of the shoulder joint - the muscles and tendons that support the shoulder at the shoulder joint - and the back deltoids always work in a secondary role in all back exercises. Additionally, you can add to your program an exercise that selectively affects the trapezius muscle - it is called shrugs.

You can also combine back workouts with biceps workouts to save you a training day. The biceps work in all back pulling exercises and it is worthwhile to train them together. In such a workout, exercises for the back should first go, then for the biceps.

Train your back intensively. One hour of training is enough.

Chapter 7. Arm muscles training

Whether you're a fitness expert or just a beginner, you must know that trained hands are a sign of the quality of your progress in fitness (and the same for men). The arms are the most visible, visible part of the body, and they can be perfectly displayed in clothes with narrow sleeves, short sleeves, or no sleeves at all. So you understand how important it is to have tight, trained hands!

The arms are made up of three large muscle groups - the triceps brachii (triceps), the biceps brachii (biceps), and the forearm (brachialis). The first group - triceps - is responsible for straightening both the elbow and shoulder joints. A well-developed triceps looks like an inverted horseshoe on the back of the arm.

The biceps are used by our body to flex the elbow and supination of the wrist (turning it outward so that the palm is facing up). A well-developed biceps appears as a full, round muscle with a high peak. With ideal and proportionally balanced development of the arm, its front and back should be the same size when shown in a bent position.

The brachialis, or forearm muscles, are the muscles from the elbow joint to the wrist. Most women don't realize the importance of forearm training; however, strong forearms help significantly in training the back and biceps and allow you to work with heavier weights while maintaining the correct form of exercise due to a stronger grip. The forearms give the arms a beautiful and aesthetically finished appearance.

Now I will describe in detail the exercises that you need to use to train these muscle groups. Let's start with the largest group, accounting for 70% of the muscle volume from the shoulder joint to the elbow joint.

Triceps

As an assistant, triceps works in all multi-joint, complex (basic) chest and shoulder exercises. By tweaking and slightly modifying these exercises, you can shift their primary focus to the triceps, and the second focus shift to the pectoral muscles and shoulders. So here are some examples:

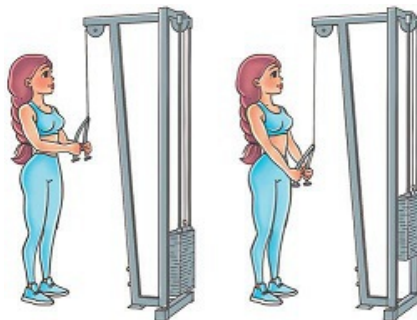
- Push-ups on the uneven bars (with its own weight, from a bench, in a sitting machine).
- Bench press with a narrow grip (flat bar, EZ bar, in Smith machine).
- Push-ups from the floor with narrow arms.

Isolation exercises:

- Triceps extensions (sitting, standing, lying, with a barbell, with dumbbells, with an EZ-bar).



- Extension of the triceps with a raised arm from dumbbells.
- Abduction by hand on the block in the slope.
- Extension with one hand with dumbbells with an emphasis on the bench.
- Extension in a block simulator while standing (with two hands, one hand, straight handle, curved, with a rope).



- Extension in a block simulator standing with a reverse grip (with two hands, one hand, straight handle, curved, with a rope).

Exercise is synergistic. Incorporate the following movements into your chest, shoulder, back, and leg workouts to add extra work to your triceps:

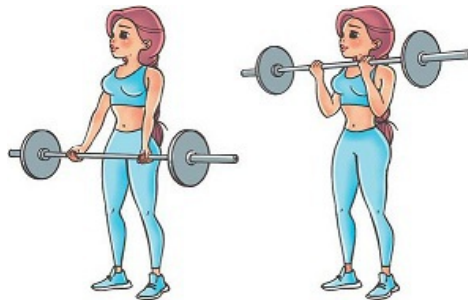
- Bench press (chest).
- Push-ups (chest).
- Bench press standing (shoulders).
- Seated or standing dumbbell press (shoulders).
- Snatch and cleanse (shoulders).
- Deadlifts (back / legs).

Biceps

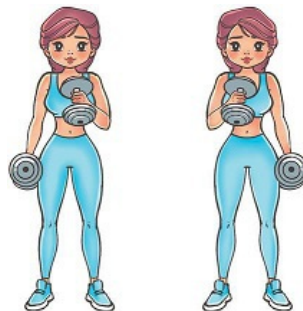
In order to use this muscle in basic multi-joint exercises, you must make it work as a synergistic muscle in complex back exercises. There are also a large number of isolation exercises for biceps, so there is always plenty to choose from.

Isolation exercises:

- Lifting the bar for biceps (wide, regular, narrow grip).



- Lifting the EZ bar for biceps (top grip, bottom grip).
- Lifting dumbbells for biceps (simultaneously, alternately, standing, sitting, with a neutral hammer position, palm up - supination, from neutral to supination).
- Flexion of arms on a block simulator (simultaneously, alternately, standing, sitting, palm up - supination, different grip, different handles, with a rope).
- Scott bench curls (dumbbells, EZ barbell).
- Concentrated flexion in support (dumbbells, block trainer).
- Bent-over seated curls (dumbbells, block trainer).
- Hammer curls (biceps).



Synergistic exercises. Incorporate the following movements into your supinated back workouts to give your biceps extra

work:

- Bent over barbell rows (back).
- T-bar row (back).
- Pull of the block from above (back).
- Horizontal row of the block while sitting (back).

Forearms

When worked out in isolation, this muscle group can be movements with flexion or extension of the wrist. But this group works best as a synergistic muscle in almost every back or biceps exercise.

In back training, all pulling exercises target the forearm muscles by strengthening the grip with the palms.

Synergistic exercises. Incorporate the following movements into your back and biceps workouts to increase the stimulation of your forearm muscles. Use different types of grip:

- Bent over barbell rows (back).
- T-bar row (back).
- Pull of the block from above (back).
- Horizontal row of the block while sitting (back).
- Dumbbell lifts (biceps).
- Flexion on a block trainer (different handles, rope).

Training set for the arms

When developing your training complex for the arms, include 2-3 exercises for each muscle group. These muscles are very small and can be easily fatigued with even two exercises. In arm training, it is very important to change the order of the exercises and the exercises themselves in order to develop aesthetic and proportionally beautiful arms without the predominance of any of the triceps or biceps heads.

If you want to add mass to your arm muscles, focus on doing 8-12 reps in three to four approaches. If your arms are lagging behind in strength, then reduce the number of repetitions to 6-10 and you can alternate your trainings with these two approaches.

It will be useful to know about the rules for building a training split, focused on working out the hands. There are different combinations. If your weekly split workout is split into pulling and pressing days, then, alternatively, on pulling days, include your biceps after exercises on your back, and triceps after exercises on your chest in the next workout. If you decide to train the muscles of the arms in tandem with a large group, then always train it first, and include your hands at the end of the workout. This must be done because the muscles of the arms are very small, they are always involved in most exercises for those groups that are larger, and therefore they get tired quite easily. If you put your arms first in such a pair workout, they will get tired quickly enough that it will not give you the opportunity to train large muscle groups with heavy weights.

Another option would be to take your arm workout on a separate day, where you can alternate between where you start. The first can be both triceps and biceps. You can swap them at the next workout. If you decide to train your forearms, they should always be at the end of your workout. On a separate day, your arms should be withdrawn if they are a lagging muscle group and you need to tighten them.

Your workout shouldn't last longer than an hour. This time is more than enough to fully work one part of the body. If you

can't meet an hour, then analyze what the time is spent on - perhaps you just communicate a lot in the hall with other people or social networks take up time. Remember exactly what you came to training for, and take your acquaintances and communication outside the gym.

It is especially important to stay focused during arm training. This is due to the fact that the muscles of the arms are quite small and are mainly worked out with isolating exercises - the ability to work with large weights will be limited. Don't sacrifice correct exercise technique for heavy weights.

You can keep the intensity high by using short rest periods between sets, superset techniques, negative reps, and drop sets. Your hands should be tight and plump at the end of the workout, they should be on fire.

The arm muscles are, as I said, small in size and are trained primarily through isolating movements, which are not the best help in increasing muscle mass due to the limitations of the weight you can lift. Therefore, the best way to add volume to the arms is to train them after training the pectoral muscles and back with complex, multi-joint exercises in which the arms are loaded as synergistic muscles quite strongly. The second tip is to use alternating different isolating movements on the arm muscles. And the third tip is, of course, the intensity, which in arm training should be at the highest level.

The most effective biceps curls are barbell lifts. This is a fundamental exercise and should be included in your training program.

The most effective isolation exercise for the triceps is the French barbell or EZ bar bench press. Perform these two exercises with the maximum weight possible for you, with which you are able to maintain the correct technique.

Hands quickly adapt to the exercises, so try different types of flexion and extension from time to time, use different handles, dumbbells, bars, ropes or block trainers. "Attack" your arm muscles from different angles.

If you think your biceps and triceps training technique is sufficiently refined and correct, then you can use so-called

cheating technique to increase the intensity of training these muscles in the last repetitions of your sets. This is a very effective way to give one hundred percent in the exercise and make the maximum number of muscle fibers work.

Chapter 8. Pectoral muscles training

If men do not need to explain the need to train chest muscles, then many women approach their training with a lack of desire, let's say gently.

The pectoral muscles in women are not visible, as they think, and therefore they often forget to train them. In addition, women often confuse the mammary gland and directly the largest muscle mass of the upper front part of the body, which lies under the mammary gland.

And if not, then why train them at all? Leaving aside the completely applied side of the functional strength of the pectoral muscles, which is needed in everyday life, always and everywhere, I will dwell on the fact that, being developed, this part of the body creates an overall healthy impression of a developed upper female body, regardless of the mass and shape of the mammary gland. Excellent posture, well-developed and rounded shoulders, a healthy and even spine, well-trained arms - all this cannot be achieved without regular training of the pectoral muscles.

Your training program should always focus on fully training all muscle groups. If your plans in fitness and life are serious, if you are in the gym seriously and for a long time, if the beauty of a healthy and harmoniously developed body is your priority, then training of muscle groups of the upper body, pectoral muscles, in particular, should be given no less attention than training buttocks and legs. And then on the street people will turn around to look at you, friends and relatives will admire, and you yourself will enjoy a healthy and beautiful body all your life.

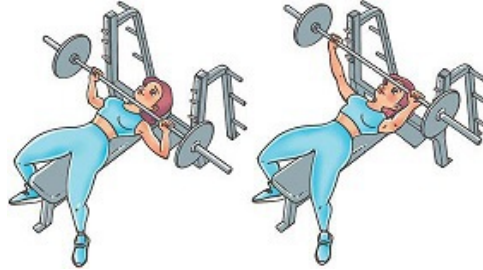
So, the pectoral muscles consist of the pectoralis major and pectoralis minor. The pectoralis major muscle consists of two heads - the clavicular (upper part) and the sternum (middle and lower parts). The pectoralis minor is located on the outside of the chest under the pectoralis major.

Despite the fact that the chest mass consists of only two muscles, it is one of the largest in the body and requires a

serious training program for its all-round development. From the point of view of the proportions and harmonious development of the upper body, such a program is important for working out the ligaments of the anterior deltoid muscles and the pectoralis major itself. Well and regularly trained, this ligament looks gorgeous in women, sexy and instantly shows your serious training.

Basic exercises for the pectoral muscles

Bench press: on a horizontal bench, on the bench with incline, with a negative incline.



Grip types: wide, narrow, neutral.

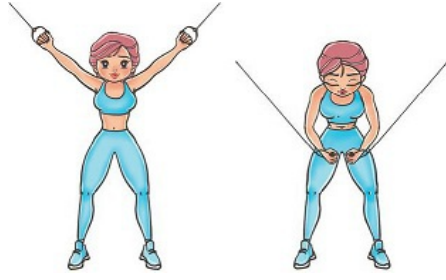
Equipment: barbell, dumbbells, Smith machine.



- Press in simulators.
- Push-ups. All types: with the legs set above the level of the head, with the support of the hands above the level of the support of the legs, with weights, plyometric, with claps. With different setting of hands: wide, narrow, neutral, and on one hand.
- Dips on the uneven bars: with weights, reverse push-ups on the bench.

Isolation exercises for the pectoral muscles

- Dumbbell breeding: lying on a horizontal bench, on an incline, with a negative slope; using dumbbells or a block trainer.
- Crossovers in the block trainer: high and low.



- Lying pullovers.

Approaches and repetitions

Since the pectoral muscles are large enough, they must be worked out with different exercises in a large number of approaches. When designing your training program, choose 2-3 basic multi-joint exercises and 1-2 isolation exercises for your chest to make sure that you stimulate all muscle fibers to grow and “attack” this group from different angles.

Since the pectoralis major muscle is shaped like a fan, you can choose exercises in such a way as to focus on different parts of this muscle, on the upper or lower. This will depend on the choice of exercise and how you do it.

In order to focus on the upper head of the pectoralis major muscle, which is the most visible in women due to anatomical features, choose presses and breeding on an incline bench. By choosing a horizontal bench, you will evenly distribute the load on the entire pectoral muscle. And if you use a bench with a negative slope, then the lower sections of the pectoralis major muscle will receive a greater load.

For most people, 8-12 reps for basic exercises and 10-15 reps for isolation exercises in two or three approaches will do without taking into account the warm-up.

If you need an increase in volume, then alternate approaches of 8-12 reps and strength approaches in basic exercises for 5-8 reps.

Choose several exercises with different numbers of repetitions in your program. In one workout, use basic exercises with high weights and low reps first, then do isolation exercises with high reps.

The pectoral muscles, as mentioned earlier, are a fairly large muscle group. Therefore, it makes sense to set aside a separate day for her training. This would be a very smart approach to work through the entire part thoroughly.

It will be methodically justified to combine chest training with shoulders and / or triceps. This combination is suitable for those who build their split, dividing the days into “pressing” and “traction”. Accordingly, the workout of the chest falls on

the “press” days. In such a workout, the shoulders and triceps receive a secondary load, which is a plus for those trainees who want to save time and achieve high intensity during training.

Another option for training pectorals in conjunction with another muscle group is combining with biceps training on the same day. A plus will be the ability to train the pectorals as intensely as possible, without looking back at the fact that you need to leave your strength for training triceps and shoulders. And the biceps in such a split will be used at full power, as it was not directly involved in chest training.

Once again mentioning that the pectoral muscles are large enough and require a separate serious work out, I categorically do not recommend combining their training with training the legs or back. Since both muscle groups are very large in themselves and require special attention for themselves. By itself, training the chest separately from other groups will take you 30-45 minutes or an hour if you add another small muscle group, the expediency of combining with which was mentioned earlier.

The pectoral muscles are fairly easy to train at full intensity. They are easy to feel during exercise and can be easily fatigued with increasing intensity techniques. Train your chest in such a way that the last repetitions come out very tense for you, only in this way you can achieve the desired intensity.

It is quite difficult for women to add muscle mass in the pectoral region. Most of the force in the female body is concentrated in the lower half, so the girls have to work on the upper half with double effort. This effort can only be achieved by training the upper body at a very high intensity, increasing working weights and using a variety of exercises.

The basis for training the pectoral muscles must necessarily be a bench press on a horizontal bench.

This movement, which hails from powerlifting, builds strength and volume like no other. Just make sure that you have learned the form of doing the bench press by heart and there is a person behind you who will hedge and help in the approach to

finish a couple of forced reps when you are already getting close to muscle failure.

The pectoral muscles are big and strong and they can lift a lot! And, despite the fact that girls in the upper body are not as strong as in the lower, consistent and persistent work with large weights will in any case lead to success in the development of the entire upper female body.

In the bench press on a horizontal bench, the pectorals respond well to 6-8 reps per approach. In order of periodization the load, you can try this scheme - do this bench press once a week in a heavy mode, or alternate strength approaches in a week, performing presses with a lighter weight, but with more repetitions at the next workout.

And one more piece of advice in the end: if you are going to train without a partner or a person who can hedge you, then the bench press is an exercise where you simply cannot do without him. You will not get far in your progress on this exercise unless you find someone to assist you. The first reason is safety precautions. Even if your barbell weighs only 30 kg, it will still be a very unpleasant situation if you cannot lift it from your chest. It is for this reason that you should never use the barbell locks when you bench press. In a critical situation, if no one is around, you will only need to tilt the barbell to the side so that the weight plate slide off it and release you from the iron captivity. But I hope you find someone who can stand behind you for twenty to thirty seconds while you press the barbell. It is very important.

Secondly, it is advisable that your spotter has the skill to assist in forced repetitions. This is when you will no longer have the strength for the last couple of repetitions, and he will easily help you to squeeze these two reps. It will not lift the barbell for you, but it will help, balancing on the verge of your refusal, and will allow you to give your best 100%. So grab any tough guy in the gym by the arms and drag him to the bench. In the most difficult, last approaches; there is no way without him. This is very serious advice in fact. It is very difficult to progress in the growth and strength of the pectoral muscles without the help of an assistant.

In conclusion, I want to say again that the chest muscles in complex basic exercises need to be trained hard. Always try to increase your working weights by at least a kilogram, at least 500 grams, if you find such a weighting agent. If you did not cope with the planned number of repetitions, it does not matter! The more you stimulate your muscles with large weights for yourself, the faster they will develop, and you will gain strength and shape!

Chapter 9. Leg muscles training

Quadriceps

This muscle group is made up of four distinct muscles.

1. The rectus femoris is a long fusiform muscle located on the front of the thigh above all other muscles of the quadriceps. It is clearly visible on the front of the thigh and determines its roundness in front.
2. The vastus lateralis is the largest of all the muscles of the thighs. The roundness of the lateral part of the thigh depends on it.
3. Broad medial thigh muscle (vastus medialis) - a thick and flat muscle located on the inner side of the thigh, overlapping the front of the thigh in the knee area. This muscle forms a rounded ridge on the inside of the knee, similar to a drop. That is why it is sometimes called teardrop-shaped.
4. The last of the four muscles is not visible on the surface. This is the vastus intermedius, a muscle located between the lateral and medial vastus muscles. It is hidden under their edges and is covered from above by the rectus femoris muscle.

The common tasks of all four of these muscles are to extend the knee and flex the leg at the hip joint (bringing the hip to the abdomen).

Muscles of the back of the thigh

The back of the thigh is also made up of four muscles. They are combined into two large muscles - the biceps femoris and the semitendinosus, along with the semimembranosus.

The muscles in the back of the thigh are responsible for flexion and rotation of the knee joint.

Buttocks

The gluteal group consists of three main muscles: large, medium and small.

The gluteus maximus, according to its name, is the most massive and most visible. The gluteus medius is on top, on the

outside of the gluteus maximus, while the gluteus minimus lies under the gluteus maximus. All muscles of buttocks are responsible for hip abduction, external rotation, abduction and adduction.

Exercises for training the quadriceps

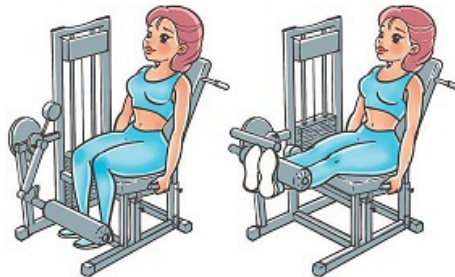
- Barbell squats - different stances: narrow stance, normal, wide stance.



- Squats in the Gakk-machine.
- Bench press - different leg stance options: narrow leg stance, normal leg stance, wide leg stance and different options for setting the direction of the toe.



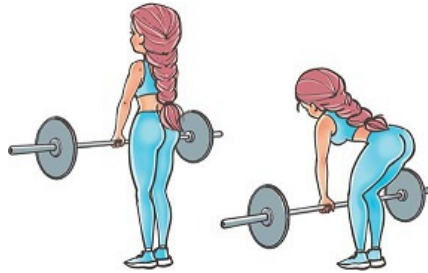
- Front squats with a barbell.
- Lunges - with dumbbells, with a barbell, forward, backward, sideways, gait.
- Bulgarian squats.
- Isolation exercises for training the front surface of the legs - the quadriceps.



- Leg extension in the simulator.
- Sissy squats.

Exercises for training the back of the legs

- Romanian deadlift.



- Deadlift on straight legs.
- Leg curls in the simulator.



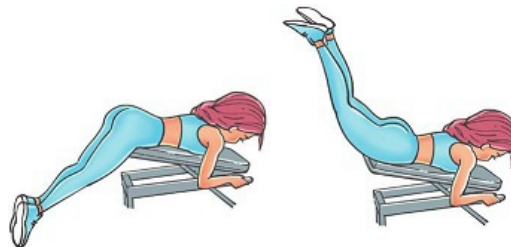
- Hip adduction - standing, sitting, on the block, in the simulator.
- Good Morning Barbell Slopes.

Exercises for training the buttocks

- Glute bridge (with weight, without weight, in the Smith machine).



- Reverse hyperextension.



- Leading the hip back - on all fours, standing, on the block.
- Legs to the side.
- Legs back.



- Breeding legs in the simulator.
- All variations of these exercises with rubber bands.

In addition to these exercises, the leg muscles work great in basic exercises such as the traditional deadlift or sumo row. Also, the legs are loaded in cardio exercises.

Building a training program for leg muscles

Complex exercises are best for developing leg muscles because they engage all three huge masses of thigh muscles - the quadriceps, hip biceps, and buttocks. By bending your knee and moving your hip back in one movement, you can lift a very significant weight and at the same time save your time in the gym. Multi-joint exercises burn more calories and require more intensity. They are much more effective than isolation exercises. Make complex multi-joint exercises the backbone of your workout and add isolation movements to fully and comprehensively work out all muscles.

Choose 2-3 complex exercises for yourself and add a couple of isolating exercises to them - this applies to training both quadriceps and hip biceps. This approach will allow you to be sure that you deliberately “hit” all the muscles, that the intensity and load were enough both to stimulate the growth of new muscle fibers and to increase strength.

Begin the first exercise for the muscle group with a couple of warm-up approaches with a large number of repetitions and with a small weight. Working approaches will need to be done with higher weights and reduced reps.

From time to time, your legs, and you yourself, want to change - no one bothers to arrange some crazy workout with small weights and 30 repetitions in the approach. The opportunity to work for developing strength is also a good solution: drop to two or four repetitions in the in the approach, but with weights above 80-90% of your one-time maximum. Such an integrated approach will not let you or your legs get bored.

In addition, on the day of the legs, you can also train the calf muscles, which are indirectly involved in the work of all multi-joint exercises. Decide for yourself where to put them. If you have enough time, put your calves on leg day with the last exercises. If you don't have much time, you can take out the calves on a separate day and combine, for example, shoulder training with calf training. Or pump them twice a week - both with legs and shoulders. But in any case, do not forget about them!

Once again I want to remind you about the intensity! If after training your legs you do not leave the gym limping and looking around in search of a railing or a fulcrum, know that you have not finished! Admit it to yourself honestly!

Another important reminder about a common female misconception is about your training goals. Please do not set yourself the task of “being in good shape” - these are empty words that mean absolutely nothing. In fitness, there are only two goals in relation to muscle: add muscle mass and remove subcutaneous fat. All!

You will not be able to keep a certain part of the body in good shape. So focus on what you would like to fix and build your training with that in mind.

Some women think they have big legs. By “large,” I mean that they are proportionally larger than your upper body. And here you need to firmly decide where this size comes from? Is it because of the big muscles, or is it a lot of subcutaneous fat that makes your legs look like this?

If the muscles are to blame for the size of the legs, then the girl should have a beautiful outer side of the thigh, the broad medial muscle of the thigh should be clearly visible in the form of a “drop” above the knee, and there should be no cellulite on the legs. The back of the thigh should be round and full. In any case, such legs can be quite massive, but at the same time they will be elastic, with beautiful curves and lines. And it looks very beautiful!

If the extra size owes its volume to the extra fat layer, then there will be no shape and drawing on such legs.

In reality, and not in the photo in social networks, there are not so many women in the world without cellulite absolutely on the buttocks and thighs. As a rule, its manifestations can completely disappear only when the percentage of subcutaneous fat drops to 13% –11%. In ordinary life, few people can constantly maintain such a percentage throughout the year, as this threatens women with hormonal disruption and amenorrhea. So don't get too upset about cellulite. Cellulite is not a disease and there is no need to try to treat it.

It's useless. It is better to focus on the goals of gaining muscle mass and increasing strength, rather than constantly monitoring the level of fat - your psyche will be healthier.

Chapter 10. Abdominal muscles training

This muscle area is problematic for many women, or so they think it is. Women, whose abdominal muscles are covered with a sufficiently large fat layer, do not see the development of this muscle group, but this does not mean at all that the notorious “cubes” do not exist on their belly. This just means that the fat covers them, and they are simply not visible. Despite the visual side of the development of these muscles, they in any case play a crucial role in the success of your body training, in the development of the entire complex of core muscles, in the development of your functional strength and in all types of physical activity and complex and basic exercises.

Let me remind you that the so-called core muscles are a whole complex of muscles in the center of your body that are responsible for stabilizing the pelvis, hips and spine, for stabilizing the body as a whole, for transferring force from the legs to the arms and body and back. This complex includes the most important muscles of the middle of the body: oblique muscles, rectus abdominis muscles, gluteal muscles, back extensors, hip biceps, and many other muscles adjacent to the pelvic bones and hips.

You should know that in fitness any complex movement, any basic exercise begins with a contraction of the core muscles. Only after these muscles are involved in the work, the effort is transmitted through the arms and legs to the barbell or dumbbells. With a weak center of your body, you will not be able to achieve increased results in strength, complex exercises.

The importance of their development is difficult to overestimate. Strong abdominal muscles are responsible, among other things, for perfect posture. Although, even with a flat stomach, they may not have a pronounced six cubes. The abdominal muscles are made up of two main visible muscle groups:

The rectus abdominis muscle is made up of two parallel stripes that begin just below the chest and, gradually tapering, are attached by a strong tendon to the pubic bone. Throughout its

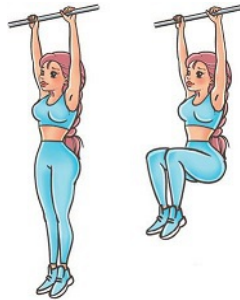
length, this paired muscle is interrupted by three or four tendon bridges running transversely (those same cubes!).

The main task of the rectus muscle is to flex the spine in the lumbar region in both directions.

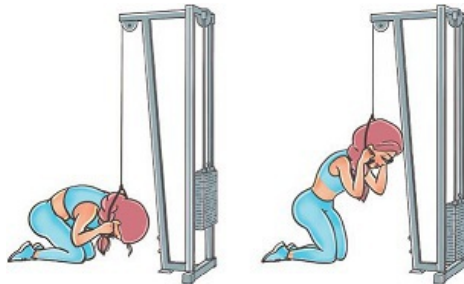
The external and internal oblique muscles of the abdomen are located on the sides of your torso and are responsible for flexion and rotation of the body in the lumbar region.

Isolation exercises for the abdominal muscles

- Hanging bent leg raises.



- Lateral rises of bent legs in the hang.
- Lying crunches.
- Lying to the side crunches.
- Reverse crunches (leg lifts, bent at the knee).
- Crunches using a block trainer (prayer).



- Twisting in the simulator.
- Twisting while lying on an incline bench.
- Twisting on the medicine ball.
- V-Ups (simultaneous lifting of the body and legs from a prone position).
- Plank.

Please remember that the abdominal muscles do not need to be overloaded. Yes, this small muscle group is capable of very quick recovery (like calves), but it is important to remember that if your training program consists mainly of complex exercises with free weights, then in all these movements the abdominal muscles are involved with high intensity for their

intended purpose and the work of the press in basic, strength exercises is much stronger than in isolation exercises.

If your program includes heavy-duty deadlifts, back rows, squats, and bench presses, sitting and standing, rest assured - your abs are already getting enough loads in these workouts. Tormenting him after that with endless twists will be a thankless and redundant business.

Mandatory rule! Do not start your workout with abdominal exercises, especially if your program has complex exercises with free weights. You will significantly lose in intensity and working weights in these movements. The reason is simple - the numerous muscles of the core, tired in advance, will not be able to keep you in a strictly predetermined position and will not be able to transfer force between the working parts of your body.

If you decide to give a load to the press, then put it at the end of the workout and train it at high intensity. Choose 2-3 exercises for yourself and do them with a minimum rest time (no more than a minute) and in a highly repetitive mode, it is possible to failure, to an unbearable burning sensation. It is perfectly acceptable to put these exercises in a circular order or combine them into supersets.

You can train the abs a couple of times a week, but between training days, there must be a rest day.

Chapter 11. Calf muscles training

This muscle group consists of two muscles.

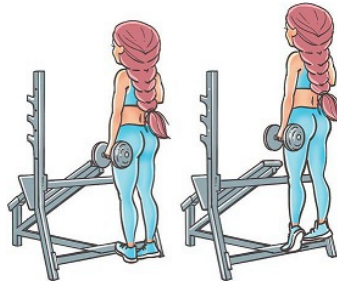
The first of them is directly the calf muscle itself. This is the biceps muscle, which consists of the medial (inner) head and the lateral (outer) head. These heads are responsible for flexion of the ankle and knee joints.

A second, smaller muscle, the soleus, runs just below the calf. She has only one task - to bend the ankle.

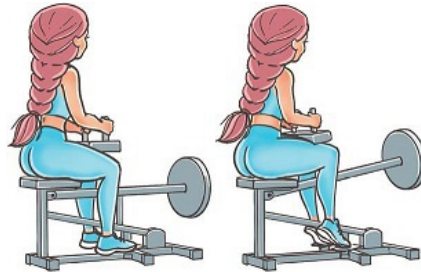
The peculiarities of the attachment of both muscles also determine the peculiarity of their training when choosing exercises. If your goal is the calf muscle, then it is involved in exercises that are performed while standing. If the task is to give a load to the soleus muscle, then you should choose exercises that are performed while sitting, with a bent knee joint.

Isolation exercises for the calf muscles

- Standing calf rises.



- “Donkey” slope rises.
- Seated calf rises.



- Calf press in the bench leg press machine.
- One-leg dumbbell lift.

In addition to these isolation exercises, the calves are well involved in squats and deadlifts.

Calves are extremely hardy muscles and must be trained very hard, with heavy weights and high repetitions. This muscle group is almost entirely composed of red muscle fibers that are responsible for endurance.

Therefore, they endure a prolonged load extremely steadily and they need to be very surprised so that they respond with growth.

Choose for yourself one or two standing exercises and one sitting exercise, rest no more than a minute between approaches. Each exercise should be performed with heavy weights for 4-6 approaches in high reps, 12-15 and much higher.

Ideally, you should finish the approach without counting the number of repetitions, and then when an unbearable burning

sensation appears in the calves. This pain will be provided to you by a large number of nerve endings in this muscle group, multiplied by the peculiarities of the energy exchange of red muscle fibers. These are oxidizing fibers, in which energy is obtained by the method of anaerobic glycolysis. That is, as a result of glycogen oxidation, you will fully enjoy the acidification of muscle fibers with hydrogen ions and lactic acid. Developing the calves is accompanied by pain. So, be ready to it.

The calves have the ability to recover quickly, so you can easily train them twice a week. If you combine calf workout with legs, then put them at the end of the workout. Otherwise, being tired, the calves will not allow you to give your best in basic exercises.

A good combination would be to add calves to your shoulder workout if you have them on a separate day.

Now you have all the knowledge to organize your training. Armed with them, you can pack your uniform in your bag and head to the gym. If you have the financial ability, you can pay for the services of a personal trainer for several sessions - at the first trainings his task will be to control your technique. You need to make sure that you are doing the exercises using the target muscles without harming your body. An experienced companion with good training experience can also come in handy in this matter.

If you have absolutely no one to ask for help, then before going to the gym, be sure to watch the YouTube video with the exercises that you have to perform in training, try to repeat them at home in front of a mirror without weight and is as similar as possible to how an expert performs them, to the channel whom you trust.

Chapter 12. Preparation for training in gym

Before you take up any shell in the gym, you need to warm up properly, warm up your body before work and protect yourself from injury. The main idea of the warm-up is to properly prepare yourself for lifting weights, but not waste precious energy on overworking before a hard workout in the gym. You need to find this line, the golden mean, and not make a mistake: it is not enough to warm up or over-warm up so that you can't show any intensity during training.

Experienced athletes know ahead of time what they will do in the gym even the day before training.

They review the upcoming lesson in their head, possible problems (for example, a packed room) and ways to solve them.

Beginners are different in that they have no idea what they will do in the hall until they get into it. And often, even while already in it, they have no idea about where to run and what to grab onto.

Therefore, the first rule of warm-up is a mental warm-up! Turn on your brain, set it up for training long before it. If this topic is interesting to you, then use the methods of autogenous training, visualization techniques, known in psychology. All this will help you get the best results and prepare your central nervous system for work even before you step into the gym.

Until we get down to a specific physical warm-up, let me remind you of a few more useful rules:

If you train early in the morning or it is cold in the gym, then spend proportionately more time on warming up than in the evening.

The older you are, the more attention you should pay to the warm-up.

If you are young and vigorous, but your joints have a tendency to click and squeak, warm up consistently. Don't start out with

jerky, quick movements.

The harder you are going to work in the gym, the heavier the weights will be, the more thoroughly you should be preparing for them.

If you are going to train with your own weight, then find movements for warm-up that are similar to the main exercises, but with less weight. For example, if it will be push-ups from the floor, then start with push-ups from the wall or from a high bench.

Now let's directly talk about how exactly you need to warm up.

Here are the rules to help you get the most out of your classes in the gym in the future.

The warm-up has two important aspects. The first is to physically warm up your body and prepare it for work. The task of this stage is to prepare our heart and cardiovascular system for work. It is necessary to accelerate the heart rate and make breathing work at full speed. This will help increase the amount of oxygenated blood in your working muscles. The heavier the load in the working muscles, the hotter you become in the literal sense. Also - this is very important - your joints will be lubricated and well prepared for the work ahead.

The second aspect of the warm-up is mental. It tunes the neural communication between the brain and muscles and makes this connection work to achieve the intended results. The joint work of physical warming up and mental preparation creates a synergistic effect that leads to an increase in the intensity of training, a decrease in the risk of injury and a decrease in post-training fatigue. In other words, the warm-up will put the body in a firing position, and the time spent on it will pay you good dividends during the subsequent hard work with the weights. Ten minutes of warm-up should be sufficient.

The warm-up should start with cardio exercises. It doesn't matter what it is: an exercise bike, a treadmill, jumping rope - whatever, everything will do to make you breathe faster and your heart beat faster. Just start increasing the load gradually;

it is also important for the elasticity of your connective tissues, for the adaptation of the central nervous system, for reducing the risk of muscle damage. Five minutes of increased cardio should be sufficient. As soon as you begin to breathe with difficulty and the first signs of sweating appear, you can finish this part of the warm-up.

Next should be dynamic stretching. It is dynamic, one that is performed in motion. Static stretching - where you freeze in a stretched position for 10-30 seconds - has not been proven to be effective in pre-workout studies. On the contrary, it causes a drop in strength results. So wave your legs, arms, walk, raising your knees high, rotate your body - all for the future!

And finally, an ideal warm-up mandatory should include warming up directly the muscle group and joints that will work in your program on a particular day.

This means that you should do one or two approaches of low weights and high reps before the main exercise with the planned working weights. Before the first basic exercise for a muscle group, be sure to do two warm-up approaches, before subsequent exercises for the same muscle group, one warm-up approach will be enough.

For example, today is leg day and first exercises are on the front of the thigh, on the quadriceps. Let's say the first exercise is squats, and then the leg presses in the simulator. This means that after doing the cardio warm-up and dynamic stretching before doing the barbell squat, you need to do two sets of squats. First with your own weight, and then with an empty barbell for 12-15 repetitions and only then can you reach working weights. The more weight, the more warm-up sets with increasing bar weight you will need.

Hopefully, the general warm-up scheme has become clear: five minutes of cardio, a couple of minutes of dynamic stretching, and three to five minutes (two sets at least) of doing the first work exercise with light weights. That's the whole secret of the warm-up.

Safe and effective training for you!

Chapter 13. How to eat properly for exercise

All food products contain nutrients - substances that give energy. These include proteins, fats and carbohydrates.

Proteins are complex compounds made up of amino acids and are the carriers of life. One gram of protein carries four kilocalories. Proteins are the building blocks of muscles, so it is vital for an exercising person to consume them in large quantities. Moreover, no matter what your goal is - losing weight, gaining muscle mass or developing strength, the amount of protein consumed should remain within 1.5-2 grams per kg of your body weight. In addition to the fact that proteins act as a building material for your muscles, in the human body they also perform a protective, transport function. It's also important to know that proteins come in two flavors: fast and slow.

Fast proteins are absorbed by the body in a very short time. Therefore, it is advisable to use them before training, immediately after it, and also combine them with slow proteins during the day. Fast proteins are found in meat, eggs, fish, and dairy products. Slow proteins are absorbed by the body for several hours. They need to be consumed during the day, ideally before going to bed, or when you will not be able to eat for a long time, in order to ensure the process of protein intake into the body for a long time. Slow proteins are found in cottage cheese, mushrooms and soybeans.

Fats are water-insoluble substances. They carry out energy, protective, thermoregulatory functions. They are able to store energy for a much longer time than carbohydrates. But this energy is slow. One gram of fat carries 9 kilocalories. Fat should be consumed within 1 gram per kilogram of body weight. Fats should be consumed during breakfast, or during the first half of the day. It is best to avoid fats before exercising as they can cause drowsiness and a heavy stomach, which can adversely affect the intensity of your exercise.

Fats can be divided into saturated and unsaturated. Unsaturated fats are “good” fats for the body, as they contain omega-3 fatty acids that are beneficial to health. Unsaturated fats can be found in walnuts, soybeans, oats, rapeseed, flaxseed, olive oils, and fish oil. Saturated fat contains vitamins A and D, but also contains bad cholesterol. They are very nutritious and should certainly be present in the diet; however, these fats should not be abundant. Saturated fats are found in meat, lard, and dairy products. The proportion of unsaturated and saturated fat in the human body should be 60/40 in favor of unsaturated fat.

Many sweets, chips, fast food, frozen convenience foods also contain fats, but these are so-called “trans fats” - unhealthy fats that should be avoided altogether.

Carbohydrates are primary source of energy for humans. By varying the amount of carbohydrates in our diet, we can control our physical fitness. If you eat about 5-6 grams of carbohydrates per kg of body weight, and at the same time, you exercise intensely, then you will gain muscle mass. If we limit our carbohydrate intake to 1-2 grams per kg of body weight, also not forgetting about exercise, then we will lose weight and burn fat. However, for each person, the amount of carbohydrates consumed will be different, depending on the goal you want to achieve, since each person’s metabolism is different.

If a large amount carbohydrates is consumed that will be stored as fat. However, a lack of carbohydrates is also harmful to the body, since you will have no energy at all, severe fatigue will begin to appear, and blood sugar levels will decrease. It makes sense to consume all carbohydrates during the first half of the day. The fact is that by eating them shortly before going to bed, you will not have time to burn the energy obtained from carbohydrates, and it will remain with you in the form of subcutaneous fat.

Carbohydrates can be divided on simple and complex. The emphasis in nutrition should be on complex carbohydrates, since simple carbohydrates are likely to stay with you in the form of excess fat. Complex carbohydrates are found in all

grains such as buckwheat, millet, as well as potatoes and rice. Derivatives of complex carbohydrates are: starch, fiber, cellulose and glycogen. Simple carbohydrates (in fact, regular sugar) are found in juices, fruits, and sweets. Derivatives of simple carbohydrates are sucrose, fructose, lactose, glucose and maltose.

To understand how much protein, fat or carbohydrates a particular product contains, just read its nutritional value on the label.

Nutrition rules for better results

So, in order to achieve the ideal physical shape for you (depending on your goal), you do not need to infringe on yourself in food and completely abandon your favorite foods. At the initial stage, it is enough to only slightly adjust your diet, the type and amount of food and water consumed, so that training really brings results. Remember these 10 rules that will help you achieve results:

1. No alcohol, drugs and cigarettes.
2. It is better to eat more often, but less.
3. Avoid foods high in carbohydrates and fats.
4. Skip snacking at night.
5. Eat carbs in the morning.
6. Don't starve, never feel hungry.
7. Make sure you eat on time and what you need.
8. Be sure to drink plenty of water.
9. Eat immediately after training.
10. Eat protein and carbs before workout.

To summarize, I must say that following these basic ten rules, you can get yourself in perfect shape; however, how long it takes depends on your current shape and willingness to strictly follow these rules.

What to eat for gaining muscle mass

So, as we have already found out from the previous paragraph, it is proteins, fats and carbohydrates, or rather their amount and ratio in your daily diet, that determines your physical shape. To grow, you must eat more calories than you burn throughout the day. With intense strength training, the amount of protein consumed per day should be approximately 1.5 - 2 grams for every kilogram of body weight. If protein is not enough, then the body will have nowhere to take the building material for muscle growth. However, a large amount of protein is also harmful, as it harms the digestive system, but it will hardly be absorbed by your body. It will fit optimally in the interval of 1.5 - 2 grams of protein for every kilogram of body weight, that is, if you weigh 70 kilograms, then you should receive at least 105-140 grams of protein from the food consumed per day.

It's even easier with fats. The norm for the consumption of fat, I would call about 1 gram for every kilogram of body weight. This amount of fat is essential for maintaining your health.

The situation with carbohydrates is a little more complicated. It is difficult to say the exact amount for a set of lean muscle mass, since each person's metabolism is individual, and if your goal is precisely a set of lean muscles without fat, then I advise you to try the following method: try to consume 4 grams of carbs for two weeks for each kg of body weight (if you weigh, say, 80 kilograms, then eat 320 grams of carbohydrates per day, and mainly complex carbohydrates) and see how your weight and your physical form change.

There can be three options for the development of events:

Option 1: Nothing changes, you practically do not grow, you feel that you obviously lack energy, and, in your opinion, you are not recovering quickly enough, or you are losing weight altogether. In this case, increase the amount of carbohydrates consumed to 5 grams per kilogram of body weight, and repeat the experiment. If the situation does not change, then add other gram of carbohydrates for every kilogram of body weight until you start to grow (muscles).

Option 2: You see improvements for the better, you gain muscle mass, mood and well-being. This is what we wanted. In this case, leave everything as it is.

Option 3: You start to get fat. So 4 grams of carbohydrates for every kilogram of body weight per day is a lot for you. Most likely, either you initially tended to be overweight, or you do not move enough during the day. Cut the amount of carbohydrates consumed to 3 grams for every kilogram of body weight per day and see in which direction your shape changes.

Also, I ask you not to forget that you need to eat often and little by little, be sure to eat immediately after waking up in order to start the metabolism, eat an hour and a half before and immediately after training, as well as an hour before going to bed. Such nutrition will allow you not to feel hunger during the day and evenly nourish your training body. Also remember to drink enough water.

What to eat for losing weight

If for gaining muscle mass you created an excess of calories in your diet, then in order to lose excess weight, on the contrary, their deficit should be created. In other words, during the day you should burn more calories than you received from food. However, there are some nuances here, which we will talk about in this paragraph. If you simply cut your diet to a minimum, then muscles will be burned along with fat, and then, when you return to your usual diet, it is fat that will return in the first place, since the human body is aimed at survival, and in the first place will store exactly the fat mass. Accordingly, after leaving such a diet, after a while the fat will return, but the muscles will not. You will look, accordingly, even worse than before the diet, and you will also feel worse.

So how do you build your diet to burn exactly excess fat? My answer is that when you are engaged in fat burning, you must remember about one more goal - to preserve muscle mass. This is possible if you train as intensely as at the stage of gaining muscle mass, try to maintain your strength indicators, and naturally, do cardio loads, as they will speed up the process of fat burning, due to the fact that you will also expend calories during cardio workouts. In the diet, we will only regulate the amount of carbohydrates. If the level of consumed proteins and fats can be left alone, and leave everything as it is (1.5 - 2 grams of protein per kilogram of body weight, and up to 1 gram of fat per kilogram of body weight), then carbohydrates will have to be reduced to 1-2 grams for every kilogram of body weight. Thus, if you weigh 90 kilograms, then you will need to consume 90-180 grams of carbohydrates.

There are also three possible scenarios for the development of events:

Option 1: if you lose more than one kilogram in weight per week, then we can confidently say that you are also losing muscle tissue, and we do not need this at all. In this case, add 0.5 grams of carbohydrates for each kilogram of body weight and monitor the dynamics.

Option 2: if you are practically not losing weight, then reduce the amount of carbohydrates by 0.5 grams for each kilogram of body weight until the result appears.

Option 3: you lose 0.5 - 1 kg of body weight per week. This is your main task in drying - it strives to reduce the fat mass of the body by 0.5 - 1 kg per week. It should be borne in mind that in the first days or even weeks of your fat burning diet, you can lose a lot of weight due to water, some of which will leave you as soon as you decide to dry out.

Thus, to summarize, it should be said that the weight and your diet during drying must be monitored especially closely. Do not forget that it is undesirable to keep a fat-burning diet for more than two months (8 weeks), as the body adapts to such a diet, and over time the process of fat burning slows down. If you need to lose more than 10-15 kg, then there is also a trick here. After 8 weeks of drying, take a break and return to your usual diet for two to three weeks, and then start drying again for 8 weeks. Naturally, during such two to three week exits from drying and returning to their usual diet, part of the weight will return back, but only a part! Ideally, you should lose 8 kg for drying, then gain 2-3 kg during the break, and then again lose 8 kg during drying, and the process is repeated again. Gradualness and consistency are important here. Don't rush the results - they will definitely come if you do everything right. Adhering to this tactic, you will burn fat for a long time and get by with minimal loss of muscle mass. Do not forget that carbohydrates for drying (to get rid of fat) should be consumed in the first half of the day, and these should be exclusively complex carbohydrates. For optimal results, you will need to divide your entire daily diet into 6-7 meals; this will also be required so that you do not suffer from hunger.

Nutrition and natural stimulators

And a few more words about nutrition. First of all, the body should receive a complete set of nutrients, including trace elements and vitamins. After the age of 40 -50, it is necessary to reduce the amount of proteins and fats, as well as consume less foods containing carbohydrates (the main suppliers of energy), preferring plant foods. In addition, it is important to remember that all products can be divided conditionally into “dead” and “living”. The first ones are chemically inert and require for the assimilation of large expenditures of the internal energy of the body. The second ones are chemically active, capable of transmitting maximum of their energy with minimal participation of enzymes.

Especially dangerous are excess fats of animal origin, as well as excess carbohydrates from starchy foods. As for nicotine, alcohol and narcotic substances, they are antibiological substances; their target becomes the central nervous system - the most responsible link of any living organism. As a result of regular “bombardment” of nerve cells with these substances, their irreversible decay begins, and then the loss of psychophysical health.

The stimulating effect on the increase in the volume of skeletal muscles is: dosed work - strength and running training.

Running training is extremely effective as an anabolic agent and can be a good addition to training of a purely power character. Athletic training can end with a run (if inside, at the spot), which reduces fatigue of the nervous system caused by strength training. The share of cross-country training is limited by the level of general fatigue, which can affect the basic training. Therefore, you need to find a reasonable combination of strength and cross-country workouts, carefully increasing the latter as you adapt to them.

Amino acids

When running, the sensitivity of cells to somatotropin and insulin increases. There is an increase in the release of gonadotropic, somatotropin; adrenaline, norepinephrine; easily digestible proteins - special sports proteins, fish, cottage cheese, soy; amino acids - the following amino acids possess anabolic activity - aspartate, arginine, ornithine, glycine, proline, series, tyrosine, citrulline, taurine, valine, isoleucine, leucine, lysine, and tryptophan.

- Arginine causes the release of growth hormone, stimulates tissue regeneration, enhances spermatogenesis, and is part of bone and tendon cells.
- Aspartate is involved in the formation of ribonucleotides (RNA precursors), increases the level of cellular energy, helps protect the liver, and improves the excretion of excess ammonia.
- Glycine slows down the process of muscle degeneration, promotes the synthesis of DNA and RNA, is involved in the synthesis of creatine, and stimulates the secretion of growth hormone.
- Ornithine increases the secretion of growth hormone, increases the metabolism of excess fat. Its effect is enhanced in combination with arginine and L-carnitine.
- Proline is the main integral component of collagen, strengthens cartilage, articular joints, ligaments and heart muscle.
- Serine is involved in muscle growth, the biosynthesis of purine, pyrimidine, creatine.
- Tyrosine stimulates the synthesis of growth hormone.
- Citrulline helps to produce energy and restore the body after fatigue.
- Valine is necessary for normalization of muscle metabolism, tissue repair and maintenance of nitrogen balance in the body.

- Isoleucine accelerates the process of energy production, increases stamina and promotes the restoration of muscle tissue. Leucine has a similar effect.
- Lysine is involved in the production of hormones, enzymes, promotes the formation of collagen, and is necessary for the synthesis of albumin. It is an essential amino acid in the construction of proteins.
- Tryptophan is involved in the synthesis of albumin and globulins, accelerates the secretion of growth hormone. To stimulate protein metabolism, not individual amino acid preparations are more effective, but their combinations. Such combinations have biologically active additives produced by various companies.
- Calcium - in an easily digestible form (as a building material for bones, ligaments, muscles).
- Iron preparations - as a component of myoglobin, as a catalyst for many biochemical reactions, as an integral part of hemoglobin - an oxygen carrier. Anabolic and biologically active substances with anabolic properties: coenzymes, vitamins, and so on.

Note. In building your diet, gradualness is very important, since sudden changes in your diet are stress for the body and for the nervous system. If you put in tremendous effort to eat right, there is a great risk of burnout and breakdown. Therefore, here, as in training, we do everything carefully. For the first time, I recommend that you switch to the correct diet, depending on your goals, within 3-4 weeks. This smooth transition will allow you to avoid stress, and once you get used to such changes in your diet, in the future, with changes in the diet, the transition stage is no longer required.

Chapter 14. Conclusion

I have shared with you a huge amount of information, sufficient for you to be able to take a step towards your dream of a beautiful and healthy body. You now have the knowledge of training and nutrition. They are proven by many years of experience of both professional athletes and ordinary people who have made fitness a part of their daily life. The information I have given you is reliable and scientifically proven. I can guarantee that by applying it correctly, you will strengthen your health and preserve it for many years.

I hope that in the near future you yourself will become an example for your relatives and friends, you will start sharing this knowledge and the world around you will become even a little better.

I know that it is not enough to purchase a gym membership, to acquire beautiful shoes and training uniform. Buying a training program from your favorite athlete or blogger does not mean changing your life. You will need mindfulness, work and discipline. You will have to try my advice in practice, feel what works for you, choose the best and build for yourself a training program and diet that is suitable and comfortable for your schedule and living conditions. You will need to make an effort to keep track of what you eat and exercise regularly; you will need strength in order to cheer yourself up, to support in difficult moments when physical strength and motivation are running out. There will be many moments in your life when you're ready to give up. But do not forget that by dropping your hands, skipping a workout, you will not get closer to your dreams; you will remain in place while life and time go forward. Find energy inside your heart, find inspiration in love for yourself, no one will give you their strength - only you yourself can find them inside yourself.

Do not treat fitness and nutrition as a temporary tool to "fix" yourself and adjust your appearance to changing standards. You go to the gym not because you need to fix something, fix yourself, become like your favorite Instagram model, or start meeting someone's expectations or even requirements. You go

to the gym to improve yourself, have fun, develop mentally and physically, you go to realize that you can manage the events of your life, enjoy your strength, feel the result of work on yourself, be proud of your achievements, praise yourself for what you could - I wanted and did!

Remember that you are perfect and beautiful from birth.

The second one like you is no longer in the universe. You were born happy, your body is beautiful from the moment it was born, you can feel, feel the joy of movement, you can enjoy tastes, smells, feel touches, be aware of the joy of movement, enjoy the closeness of other people, see, hear - your body gives you everything, to be happy. You are already perfect and delightful!

Taking care of your body, its nutrition and training will only be a huge plus, it will be useful to you in order to develop the natural potential inherent in your body, develop the ability to feel it as much as possible, live at full speed, be aware of your inner strengths and capabilities. Taking care of your body will help you stay mobile, able to enjoy the world around you not only in your youth, but also, keeping your health, to know yourself and others for many years in mature life.

Fitness and taking care of your nutrition are not needed in order to lose weight in two weeks and fit into your favorite jeans - all this will deservedly appear with time and as an additional bonus. Regular training and a conscious approach to food will help you live happily, will help you enjoy every new joyful moment, every new achievement that you yourself will be the author of.

Looking at the beautiful pictures of your idols, girls, whose figures you would like to have, you must understand that you will not have such a figure. You will have your own figure! Unrepeatable, unique, with its own characteristics and advantages! And over time, you yourself will begin to inspire others!

Don't try to copy anyone and look like photo shopped pictures taken from perfect angles in perfect light! This should not be your goal!

Make yourself! Build your body through regular work and discipline! Realize his potential; develop its strength and natural beauty! Realize that you are capable of anything! That you are the mistress of your perfect body and happiness in your life!

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I will glad to answer your questions and use them in my upcoming books.