

Components of Tactical Conditioning

HOW TO TRAIN YOUR EVERYDAY HERO



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Working to Improve Power



Power training is essential for athletes. It isn't as common for the average personal training client. However, it can still be beneficial to many of them depending on a variety of factors. It is important to understand your client's fitness level, goals, and limitations so you can determine if power exercises are the right addition to their workout.

As a personal trainer, if power exercises are something you are looking to incorporate into your client's training program, keep reading for a few of our training tips and some of our favorite exercises to help improve power.

What is Power

Simply stated, power is the ability to move weight in a very short period of time. So, ultimately, it is force times velocity. The client/athlete generates a lot of force very quickly, so power exercises are typically explosive moves.

5 Tips for Improving Power

There are many important things to consider when training a client with explosive movements. Here are a few of our top tips.

1. Body Control is Essential

Although explosive movement is the goal, it is essential the client's form is correct and their movement is under control. Improper form is a catalyst for injuries. And, when those moves occur at high speeds, it can be even more damaging. Start slow to develop proper form and control before advancing in weight or speed.

2. Don't Use Too Much Weight

More weight typically slows down the speed of the movement. However, muscular strength and heavy strength training exercises are important components in developing the muscles so the client is able to generate more power. Recruiting more motor units to help lift heavy weights may provide more potential within the muscles to create explosive power once the weight is reduced.

3. Don't Do Too Much

Power moves are explosive moves that require the recruitment of many motor units. So, if they are done correctly, the client should only need 1-10 repetitions (3 to 6 sets). And, they should typically rest about 3-5 minutes in between sets. Volume is not the goal. Correct, explosive movement is the goal for their workout.

4. Power Moves Are Typically Not Beginner Moves

Power exercises shouldn't be integrated into the training program until the body is properly prepared for explosive movement. So, your client should have solid balance and good body control, and have developed some muscular strength (in the joints and muscles) before attempting explosive movements.

5. Exercise Selection Should Match the Goals of the Client

One of the key components in training is specificity. This means the exercises need to be the right exercises to help accomplish the goal. So, make sure to consider the movement patterns the client is training for, and make sure that the power exercises imitate those movements.

Exercises to Improve Power

Remember, choosing exercises specific to the client's needs and goals is essential. There are many exercises to help improve power. Here are a few of our favorites.

Explosive Push-Up

Start your client in a [push-up](#)/plank starting position. With core engaged, they will slowly bend their arms at the elbows and lower themselves into a push-up. They will explosively push off the floor with the intention of generating enough force to lift their torso up in the air and hands off the floor, in one fluid movement. Toes will remain on the floor throughout the entire movement. Ideally, as the client comes down, they will transition right into the next repetition.

Squat Jumps

The client will begin with feet shoulder-width apart. They will slowly lower into a squat position and explode up off the floor, fully extending the ankles, knees, and hips. This should occur in one fluid motion. They should land under control and lightly on the ground in a squat position and explode back up for into the next rep, just like the explosive push-up.

Box Jumps

The client should stand in a starting position with feet shoulder-width apart, facing the plyo box. They will hinge at the hips and slowly lower themselves into a squat position. They will then explode up from the ground high enough to land on the plyo box. They should attempt to land lightly on the box in a partial squat. Have the client step down off the box and reset themselves before exploding up again.

Split Jumps

Your client will begin in a lunge position with their left foot forward. With one fluid explosive motion, the client will jump up off the floor. Mid-air, the client will alternate front and back knees so that they land with the right leg forward. A gentle landing is important. The client will explode up again and continue to alternate front and back legs throughout the rest of the reps.

Medicine Ball Slams

The starting position for medicine ball slams is an athletic stance with feet about shoulder-width apart. Your client should hold the ball in a comfortable position around belly button height. The core should be engaged and shoulders pulled back. They will slightly squat down and, in one fluid motion, press up through their heels and fully extend their ankles, knees, and hips. As they extend their legs, they will simultaneously lift the ball above their head. Using the entire body, in one explosive motion, they will slam the ball down to the ground in front of them. They can immediately squat down (with proper squat form and a straight spine), pick up the ball and complete the next repetition.

Focus on the Client and Their Goals

Training explosive movements may not be for every client. But, if power is the goal, there are many exercises to help them improve. Know your client and understand their goals so you can determine if explosive moves are right for them and, if so, what moves are best for their goals.

Passionate about training athletes and high-performance clients? Sign up for ISSA's [Strength and Conditioning Specialization](#) course! You'll learn everything you need to build the best strength, agility, and conditioning training that sports science has to offer!

Training Type IIa Muscle Fibers



For your more serious, athletic clients, those who want to go beyond basic fitness and hit more difficult power goals, it may be time to consider training to type.

Type of what? Muscle fiber, of course.

As a trainer you know about different muscle fibers, type I, type IIa, slow twitch, fast twitch, and so on. But your clients may not know that training can get more specialized, that you can [design programs to specifically target the muscle fibers](#) that will help them meet their goals and optimize performance.

Those who are more interested in getting stronger, more powerful, and faster than being able to pound out a marathon or an Ironman may benefit from training for type IIa muscle fibers. Here's what they—and you—need to know.

Muscle Fiber Types: Slow Twitch, Fast Twitch

Muscles are made up of multiple motor units. Each one contains a bundle of nerves and fibers. Muscle fibers can be any combination of three different types: type I, type IIa, and type IIx. And these are categorized as slow twitch or fast twitch, depending on how quickly they produce tension in a muscle.

The proportion of each type depends on several factors, such as what you're born with, the individual muscle, your age, and your type and level of physical fitness and training.

Understanding the differences between these fibers, what they do, how they are engaged during activities, and their relative proportions can help you and your clients develop and reach more specific training goals.

Slow Twitch vs. Fast Twitch

Slow twitch muscle fibers are known as type I fibers, and the name describes the fact that they contract slowly and steadily. These fibers are recruited for endurance and lower-intensity activities. They can keep contracting and working without fatiguing for long periods of time, creating energy through aerobic processes.

Fast twitch muscle fibers on the other hand contract quickly and more powerfully. They are needed for high-intensity but short-duration activities, like sprinting or lifting a really heavy weight. They contract quickly and fatigue quickly. This is because they largely use anaerobic metabolism for energy, which results in lactic acid production and soreness that causes the muscle to fatigue.

Type I Muscle Fibers

These are the slow twitch muscle fibers. They are smaller than type II fibers, are slower to produce tension, and they produce less force and power. They do, however, have the advantage of being slow to fatigue. Type I fibers rely on oxygen for energy and can keep going for long periods of time.

They are used for endurance activities, and endurance athletes tend to have a higher proportion of these muscle fibers. Long-distance runners, triathletes, and distance swimmers and cross-country skiers really rely on type I fibers.

Type IIa Muscle Fibers

Type IIa muscle fibers are fast twitch, meaning they fire more quickly. They are also more powerful than type I fibers and are recruited for activities that require more intensity: sprinting, lifting heavy weights.

These fibers provide major strength, but they also fatigue more easily than type I fibers. They rely on anaerobic processes and produce lactic acid, so they can't keep going as long as type I. Strength and power athletes, like sprinters and weightlifters, have higher proportions of type IIa fibers in their muscles.

Type IIx Muscle Fibers

There is a second type of fast twitch muscle fiber called type IIx. These are even faster and more powerful than type IIa. They are also even more inefficient, fatiguing very quickly. Type IIx fibers are used for activities of very short duration that require significant power and strength.

The type IIx fibers are sometimes referred to as “couch potato” muscle fibers. Even people who are inactive need to be able to run quickly or lift something in an emergency. This is where the couch potato fibers come in handy. They are metabolically efficient at rest but still allow you to react to a stimulus if necessary.

If you work out, even just a little, those IIx fibers will quickly convert to the more useful, longer lasting IIa fibers. During a period of inactivity, they revert to IIx.

How to Target Type IIa Muscle Fibers

To increase the size and number of any muscle fiber type, including type IIa muscle fibers to improve strength and power, you need to understand how different fiber types are recruited during muscle contraction.

The process and order in which muscles rely on fiber types to contract is described by the Size Principle of Motor Unit Recruitment, which tells us that:

- Motor units are used during muscle contraction in order of increasing recruitment threshold and firing rate.
- Those fibers with a low threshold and slower firing rate will be used first. So, slow twitch, type I fibers go first.
- Motor units with muscle fibers that have a higher threshold and faster firing rate are recruited and used next.
- Only after type I fibers are recruited do type II fibers begin to fire, first type IIa and then type IIx.
- When engaging in an activity, such as running fast, type I fibers may be enough. If they are not, only then will the body engage type II fibers.

In other words, when your body is trying to do some type of activity, such as lifting a weight, it will try to do it with type I muscle fibers first. If these don't provide enough force, your brain sends a signal to get the type II muscle fibers to finish off the job.

What this should tell you about training for power and strength is that you need to get past the type I recruitment to access and exercise type II muscle fibers.

If you only ever do low-intensity, endurance activities your muscles will never get to the type II fibers and they won't grow or increase in number. Focusing on high-intensity strength training and explosive movements produces improvements in force and power by recruiting and using type II fibers.

Why Train for Type IIa Muscle Fibers

While evidence that training to improve a specific muscle fiber type are mixed, it can be worthwhile. Here are some important reasons you or your client may want to focus on type IIa muscle fibers when training:

- These muscle fibers act fast, so you get a performance advantage when you have more and larger type II fibers.
- Type II fibers are very responsive to training. Fast twitch muscle fibers tend to grow 15 to 70 percent more in response to training versus slow twitch.
- The peak power of the type IIa fibers is also greater, so when you have more of them you can lift heavier weights and run faster.
- Power athletes generally have more type IIa muscle fibers, which indicates that to be able to perform weight lifting, sprinting, and similar sports, you need to develop these fibers.
- As we age, there is a decline in lean muscle mass, including type I and type II fibers. Fast twitch, or type IIa and type IIx are larger fibers and contribute to metabolic efficiency. If we don't keep these muscle

fibers active, we lose them over time. This contributes to age-related metabolic dysfunctions, increased risk of injuries like falls, and less healthy body composition changes.

Can Training Really Target and Improve Muscle Fibers by Type?

The short answer is maybe.

The longer answer is that evidence from research is mixed. There are some studies that show that more intense training, such as with heavier weights, does increase growth in type II fibers. They also demonstrate that lower intensity training increases the amount of type I fibers in muscles. ⁽¹⁾

Other studies, though, have not gotten the same results, and in fact showed that both types of training increase type I fiber growth. ⁽²⁾

So, is it worth trying to train specifically for one type of muscle fiber? Probably. It certainly can't hurt as long as you ensure your client gets some variation in training. Let them focus mostly on power and strength for increasing type II muscle fibers, but also insist on one or two endurance sessions per week.

Knowing Your Muscle Fiber Type

Some people naturally have more type I or type II fibers because of factors like age or genetics. There is easy way to reliably determine any individual's fiber type makeup, unfortunately. A muscle biopsy can tell you your percentage of each type, but this is pretty invasive for the average individual or even athlete.

There also may be differences in muscle fiber type percentages from one muscle in your body to the next. The type of training you do can also be a clue as to which type of fiber dominates your muscles:

- If you do more endurance activities, like distance running you probably have more type I, slow twitch fibers, up to 70 to 80 percent.
- On the other hand, if you are more of a sprinter or bodybuilder, you likely have more type II fibers.

You really can't know for sure how your muscle fibers are split, and neither can your clients. And even if you did, it shouldn't limit you from other types of activities. For instance, if you found out you tend to naturally have more slow twitch fibers, you wouldn't let that stop you from trying power and speed exercises.

If your clients want to know where they stand on muscle fiber type, try to impress upon them that it isn't that important. But those who do want to improve strength, power, and speed, can focus on training session that target and build type IIa fibers.

So How Do We Hit Type IIa Fibers in Training?

The concept is simple. If you perform more exercises that require fast twitch muscle fibers, you'll develop these fibers, increase their size, and essentially train your brain to access type II fibers.

On the other hand, endurance workouts will train you to recruit type I fibers.

So, if you are [training for power](#), to maximize type IIa muscle fibers, you need to do more power, high-intensity, and strength workouts and fewer endurance workouts. Think intensity, speed, and explosive force, not long and slow.

Also important to consider in type II muscle fiber training are high and low impact movements. Lower impact, plyometric movements focus on power in speed dominant sports. The resistance you need to overcome is typically lower.

High impact plyometric exercises focus on the opposite and require more resistance. In the list below, lower impact training includes Olympic lifts and sprints. Higher impact training includes drop jumps and jump squats.

Here are some examples of exercises you can use with your client to train for type IIa fibers. Sets with 10 to 15 repetitions are ideal for recruiting and maximizing fast twitch fibers.

- Weighted plyometric exercises, such as jump squats
- Speed squats
- Speed benches
- Olympic lifts
- Drop and catch moves
- Drop jumps
- Sprints

Most people working out with a trainer benefit from a combination of endurance and power workouts. But, if you have that one client who really wants to focus in on the latter, help him learn how to do it. Train to type and you can really push him to his goals of greater power, strength, and speed.

Want to delve deeper into the area of performance-based training? Dig into [ISSA's Strength and Conditioning course](#). You'll learn how to better help your clients with their fitness goals and set yourself up for a long and successful training career!

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Prioritizing Functional Strength Training



One of the biggest contributing factors to a client's general wellbeing is the type of training they perform. The human body is a [kinetic chain](#) where muscles, bones, joints, and ligaments all work together as one. To improve quality of life for each of our clients, we must increase their functional fitness. Being more biomechanically efficient leads to better movement in activities of daily living, which can lead to a better quality of life.

Every client has their own perspective on what being healthy and strong means. Clients develop a certain attitude towards what a healthy or good-looking body can be for them and how this translates to their life outside the gym.

With our clients developing their own perspective on what being stronger or more fit can mean, we must educate them on how functional strength training can affect their individual goals and translate to their daily activities.

What Does Functional Strength Training Mean?

You can define it as performing exercise movements that mimic activities of daily living to increase efficiency of total body movement. The physiological demands our bodies undergo throughout everyday life are affected by the training we perform.

The goal of a functional strength training program is to prescribe physical activity that translates to movements outside the gym. These movements can be things like being able to get out of bed, standing up off a chair, pulling open the refrigerator door, or reaching for a glass from the kitchen cabinet. In exercise terms, you have different movement patterns such as pulling, pushing, squatting, hinging, pressing, and lunging.

Improve these movement patterns through weight training or bodyweight training. Machine-based exercises are not the best choice, as they provide a fixed motion, limiting body mobility.

Functional strength training is important in general, and even more so as a client grows older. According to the [2008 Physical Activity Guidelines for Americans](#), only 6% of adults do resistance training workouts two or more times per week. Muscle mass and strength decrease 30 - 50% between the ages of 30 and 80.

How to Increase Functional Strength?

As fitness professionals, we need to distinguish and relay to our clients where the difference lies between strength in lifting more on a bench press and strength in max push-ups or pull-ups.

Both can measure “strength” gains and can be viewed as how strong a client might be, but one ultimately provides better execution by the kinetic chain as a result of functional strength training.

Relative Strength

Bodyweight exercises increase what is known as relative strength. Relative strength is measured in relation to each individual’s body size. This means a person’s relative or bodyweight strength solely depends on their unique body type. Clients who have higher relative strength are better at moving their body weight in space.

Athletes incorporate training to increase this type of strength, providing great benefit to sport performance. When we discuss functional strength training and how it relates to activities of daily life, we are aiming to increase relative strength within that client.

Absolute Strength

This is different than relative strength in terms of force exertion. With absolute strength, a person’s body size or amount of muscle does not matter. Though a higher body weight will generally allow a client to produce more force, leading to greater strength, [someone of less size can produce the same or greater strength output](#).

Absolute strength can indirectly improve a client’s relative strength and is a training approach used to do just that. When using absolute strength to improve relative strength, it is important to prescribe the program with that individual client’s goal in mind.

What Are the Best Functional Strength Training Exercises?

There are countless functional strength exercises you can have clients perform. The following exercises relate to real-life activities. The focus of these exercises is to strengthen the same muscles used in the activities listed.

- Prisoner Squat - A squat movement pattern replicating the movement of getting up off a chair or sitting down.
- Good Morning – This is a great exercise demonstrating a hip hinge movement pattern. When you lean over to pick something off the ground you are performing this same movement. Good mornings help provide resistance for the hamstrings to avoid unnecessary lower back stress.
- Dumbbell Reverse Lunge with Rotation - This can improve getting in and out of a car by improving rotational core strength.
- Single-Leg Dumbbell Row – This is great for balance and stability, relating to picking something up off

the ground. This exercise will also strengthen the back musculature for all pulling movement patterns, such as pulling a door open.

- Pull-up – This exercise works many muscle groups and provides great resistance, but the extent to which pull-ups work grip strength sometimes goes unnoticed. Think about how often you use your hands and grip throughout the day!
- Farmers Carry - This is a great exercise for improving grip strength, but also posture. Posture is vital to optimal health, strength, and fitness. Considering all the sitting and standing we do at work all day, spine health should be at the forefront of our clients' minds. If we properly strengthen the right muscle groups, then there should be no need to think about sitting up straight all the time.
- Dumbbell Shoulder Press – This exercise can translate to simply reaching above your head for a cup out of the kitchen cabinet.

How Can Corrective Exercise Benefit Functional Fitness?

The purpose of corrective exercise is to allow a client to move pain-free by prescribing an alternative movement to correct a movement dysfunction. If a client is unable to correctly perform an exercise, they should not just stop working out altogether. To help them in continuing to exercise, corrective exercises should be applied to their routine.

For example, a client with poor shoulder mobility will likely be unable to properly perform dumbbell shoulder presses. So, you prescribe corrective exercises to improve their strength so they can do more functional exercises. You might have them perform a cat camel, doorway stretch, prone t, and prone y to work on the muscles that are lacking the mobility to perform the shoulder presses.

With time and consistent application of these exercises, your client's mobility will improve. Without using corrective techniques, your client may become unable to move in a certain plane, in this case, the sagittal plane.

As a personal trainer, you must be able to recognize poor mobility and explain to your client why they need to turn to corrective exercises. Often, clients' poor mobility can be viewed as tight muscles they believe just need to be stretched, but really there is an [underactive muscle that needs to be activated](#).

Why Mobility Training is Important for Functionality

Apply mobility training to your client's workout routine and corrective exercise routine. [Mobility training should be your client's new pre-workout!](#)

If your client correctly 'warms up' their body through mobility training, they can expect less muscle soreness and better recovery. Mobility training before an intense workout primes the body for the stress it is about to undergo. This leads to better performance and less risk of injury. You stimulate your muscles, telling them how to move and in what direction. When the workout begins, they are active and ready to go.

A more active muscle throughout activities of daily living can increase muscular endurance and reaction time to better support the kinetic chain. This can allow for more alertness and body awareness. Proprioception will improve and provide better balance, stability, and motor function, not just in the gym, but outside as well.

Ready to elevate your fitness knowledge, grow your clientele, and gain a better understanding of corrective exercise with its relation to functional fitness? Explore the [ISSA's Corrective Exercise Specialization](#). This certification will provide you with the most up to date content, improve your expertise, and set you up for a successful career in the fitness industry.

Practical Periodization



When designing a client's program, it is very important to have a long-term plan. While day to day workouts are what most people think of when picturing their personal trainer, the real results do not come overnight, nor as the result of a single workout, nor even after months of workouts. The cumulative effects of months and years of workouts produce the dramatic results.

Starting on the road to a fitness lifestyle will be easy at first for your client. That's why there are so many weight loss "gurus" in the fitness world. Anyone can take an overweight person who has never exercised, instruct them to do 20 jumping jacks and walk around the block while curling soup cans and they will lose weight. Getting them to actually [accomplish their fitness goals](#) and live the fitness lifestyle takes a whole lot more, namely a periodized plan.

Periodization is the practice of splitting a program into distinct time periods, with each period building on the former periods' progress.

1. Macrocycle – the entire program, usually a training year
2. Mesocycle – 3-6-week periods within the macrocycle
3. Microcycle – the actual training week within the mesocycle

Here, we'll cover a few basic premises of periodization. Once you have a basic understanding of periodization, you will learn a simple yet highly effective system to initially assess your client's fitness level and get them started on a periodized program.

Why Does a Periodized Plan Work So Well?

Because it never allows the body to fully adapt to the imposed stresses placed on it. However, it is not as simple as taping a bunch of your favorite training programs to the dartboard every 4-6 weeks and tossing a dart at them, using the program that it hits for the next couple of weeks. You should have a logical progression to your program design; otherwise you are leaving your clients training fate up to blind luck. They deserve better than that, and you will be able to give it to them once you understand how.

The Role of Intensity

Despite being a word tossed around loosely by the fitness media today, intensity does have a concrete definition. It simply refers to the percentage being lifted of your one repetition maximum (1RM). The higher the percentage, the higher the intensity level.

While intensity is defined as a percentage of 1RM this does not mean you need to know someone's 1RM to successfully develop a program. It would be negligent to take a beginning trainee and perform 1RM tests on

them. You can simply find a weight that allows your client to complete the number of reps usually associated with the [desired intensity levels](#). Finding a client's 1RM should only be attempted with those clients who have an outstanding level of fitness and no medical conditions, such as hypertension, that would preclude them from such an attempt. Many charts exist that allow you to estimate 1RMs from higher repetition maximums and those should be used when necessary. Since some degree of error exists in these estimation charts, it is advisable to get 2 or more and use their average for a more accurate prediction.

Setting a Foundation

A periodization model typically begins by laying a fitness foundation first. The foundation involves basic exercises and movements to strengthen tendons and ligaments and preparing the body for the training stress ahead while reversing the effects of disuse in your beginning clients. This phase usually employs a relatively higher number of reps (10-15) and moderate/high volume (2-4 sets, 8-12 exercises). This is usually referred to as an “anatomical adaptation” phase and lasts 1-12 weeks, depending on the beginning fitness level of the client. The higher the beginning fitness level, the shorter the AA phase will be. A workout utilizing one exercise per body part in a circuit training fashion (using both free weights and machines) is a great example of such a program. This stage works perfectly as the “Guided Discovery” for your beginning clients.

Introducing Stress

Once the foundation has been laid, it is time to increase the training stress. At this point the program should be employing some sort of training split (literally splitting muscle groups up and training them on different days). Whatever split you choose for a client has to be tailored to their schedule. While you may be convinced that training biceps once every three days is best for maximum results, if it does not fit into your client's schedule it does not matter. You have to be realistic when designing a client's program, especially about training days and what training split is used. An example of a very popular and effective 3-day split over the course of a week is:

TRAINING DAY 1 (MONDAY)	TRAINING DAY 2 (WEDNESDAY)	TRAINING DAY 3 (FRIDAY)
Quads	Chest	Back
Hamstrings	Biceps	Triceps
Calves	Abs	Shoulders

Note: Days listed are suggestions only. This type of split can be tailored to a variety of schedules if all three days are not done in a row.

Training Splits

The next intensity level is comparable to a bodybuilder's routine. During this phase there will be an increase in volume and intensity, but that will be offset by the use of a training split which allows for the longer recovery periods for each body part. This type of program generally has 4-8 sets in a workout per large muscle group and 1-3 sets for smaller muscle groups.

Do not make the mistake a lot of trainers do and place equal emphasis on all body parts. Smaller muscle groups do not need anywhere near the volume that larger muscle groups do. Regardless of what muscle group is being worked, you should use an intensity that allows for the completion of 6-12 reps in each set. Moderate rest periods of 1-2 minutes between sets are also typical of this type of routine. Training in this way, using moderate volume and moderate intensity, is great for [inducing muscular hypertrophy](#), which is why most "bodybuilder" routines fall into this category.

Absolute Strength

The third level of intensity is the highest. This phase will concentrate on absolute strength levels, often using 5 reps or less per set. This type of program is typified by using 5-10 sets for larger muscle groups and 2-4 sets for smaller muscle groups. Longer rest periods of 2-5 minutes are also used to ensure that you have regenerated enough ATP to continue with the same workload. Not all clients will progress to the point of safely being able to use such high intensity levels. However, for those clients who have achieved a good level of fitness and do not have any medical reasons that they should not participate in such high intensity programs, such as high blood pressure, working on absolute strength from time to time is vital to a periodized program's success.

This type of training improves absolute strength by increasing the amount of muscle fibers being recruited to lift the weight, the coordination of the different muscle groups being used, and decreases how much the antagonistic (opposite) muscle groups contract and interfere with the movement.

Training in this manner will allow for large increases in strength without large increases in muscle mass, allowing for a trainee to achieve both better absolute and relative strength. Relative strength is how much weight can be lifted for an exercise in relation to a person's bodyweight. For example, someone who can squat 250 pounds at a bodyweight of 160 pounds has a higher relative strength than someone who can squat 250 pounds at a bodyweight of 200 pounds does. Relative strength is very important in most sports and any athlete, from weekend to professional, would be wise to work on this quality.

There is a simple logic to this type of intensity progression. Since intense weight training builds up muscle strength faster than tendon and ligament strength it only makes sense to spend some time doing a lower intensity, higher

rep phase, especially at the beginning of a program, to correct this imbalance. After the foundation has been laid and any imbalances have been corrected, then it is safe to start working at higher intensity levels.

The goal of any strength-training program is obviously to increase strength, but more specifically it should improve absolute strength. Absolute strength is the basis for all other types of anaerobic strength, and since most of your clients' daily activities are anaerobic by nature, this is a crucial component of fitness to improve.

How much absolute strength a muscle can produce is related to its cross-sectional area, essentially meaning that bigger muscles have more strength potential than smaller muscles. This is why a periodized program will typically work on hypertrophy first and then absolute strength. An ideal periodized program alternates between the two until it is time to back off and then spends time on a lower intensity program for reasons discussed above.

The System of Assessment

Now that you understand periodization and why it follows the progressions that it does, let's review a system for assessing a client's beginning fitness level and how to get them started on a periodized program based on that initial assessment. However, do not rely on this as all you need to know about periodization. Very few clients will fit perfectly into these models and only by continually educating yourself can you tailor a periodized program to a client's individual needs. This is simply meant to demonstrate some of what was discussed earlier about periodization and to give those who need it a place to start today in designing a periodized program for a client.

First let's establish the four general categories of clients:

- **Deconditioned:** No exercise history AND any medical conditions/red flags (obesity, diabetes, hypertension, osteoporosis, arthritis, etc.). Remember that, for both legal and professional reasons, these conditions MUST be under control for you to undertake being their trainer.
- **Beginner:** Less than 2 years strength training experience and no uncontrolled medical conditions or red flags.
- **Intermediate:** 2+ years of continual strength training experience and no uncontrolled medical conditions or red flags. Your average fitness buffs.
- **Advanced:** 5+ years of continual strength training experience and no uncontrolled medical conditions or red flags. Serious fitness buffs and athletes fall into this category.

Note: These are not set in stone. Some clients who have trained for 10 years may still need to be treated as intermediates or even beginners while some intermediates may be serious enough to be considered advanced. The trainer must use some personal judgment when assessing the fitness level of a client. If any doubt exists, err on the side of caution and pick up the intensity level later if necessary.

The beginning fitness level classification will be used to figure out how long will be spent laying the fitness foundation and how fast the client will progress to the higher intensity levels. First let's review the different stages (mesocycles) and then look at a possible way to arrange them based on your client's beginning fitness level.

Stage 1

Type of program suggested: Circuit Training

Intensity level: Low (30-60% of 1RM)

Repetitions: 10-15

Total sets per muscle group: 1-3 per exercise

Number of exercises per muscle group: 1

Rest between sets: 0-60 seconds

Duration: Deconditioned- 6-9 weeks

Beginner- 3-6 weeks

Intermediate- 3-6 weeks

Advanced- 1-3 weeks

Stage 1 Sample Workout

EXERCISE	REPS	SETS
Squat/Leg Press	15	2
Incline Bench Press	15	2
Leg Curl	15	2
T-Bar Row	15	2
Standing Calf Raises	15	2
DB Shoulder Press	15	2
Crunches	20	2
Seated DB Curl	15	2
Back Extensions	15	2
Cable Pushdowns	15	2

Exercises to be performed in a circuit fashion. Repeat this workout three times a week allowing at least a days rest between weight training days.

Stage 1a (Deconditioned and Beginner Clients Only)

Type of program suggested: Upper Body/ Lower Body Split

Intensity level: Low (30- 60% of 1RM)

Repetitions: 10- 15

Total sets per muscle group: 2- 6

Number of exercises per muscle group: 1- 2

Rest between sets: 0- 60 seconds

Duration: Deconditioned: 3-6 weeks

Beginner: 3-6 weeks

Stage 1a Sample Workouts Split Pattern

	TRAINING DAY 1	TRAINING DAY 2	TRAINING DAY 3
WEEK 1	Upper Body	Lower Body	Upper Body
WEEK 2	Lower Body	Upper Body	Lower Body

Repeat this split pattern as many times as needed.

Upper Body

EXERCISE	REPS	SETS
T-Bar Row	15	4
Bench Press	15	4
Lat Pulldowns	12	2
Incline Fly	12	2
Lateral Raises	15	3
Preacher Curl	15	2
French Press	15	2

Lower Body

EXERCISE	REPS	SETS
Squat	15	5
Lying Leg Curl	15	4
Seated Calf Raises	12	4
Crunches	20	3
Back Extensions	15	3

Note: Although abs and lower back are technically part of the upper body for practicality, they are included in the lower body program.

Stage 2 (Muscle Mass)

Type of program suggested: Some type of training split tailored to your client's schedule

Intensity level: Moderate (60-80% of 1RM)

Repetitions: 6-12

Total sets per muscle group: Large Muscle Groups: 4-8

Small Muscle Groups: 1- 3

Number of exercises per muscle group: 1-4

Rest between sets: 60-120 seconds

Duration: 3-9 weeks

Stage 2 Sample Workouts

For this stage we will use the following split:

TRAINING DAY 1	TRAINING DAY 2	TRAINING DAY 3
Quads	Pecs	Back
Hamstrings	Biceps	Triceps
Calves	Abs/Low Back	Shoulders

Note: Allow at least a days rest between weight training days.

Training Day 1:

EXERCISE	REPS	SETS
Squat	8-10	4
Stiff Leg Deadlift	8-10	4
Leg Extensions a1	12	2
Leg Curls a2	12	2
Seated Calf Raises	6	2
Standing Calf Raises	12	2

Note: a1 and a2 designate two exercises that are to be done in a superset fashion. Do one set of the a1 exercises and while you are resting perform one set of the a2 exercise. Repeat until you have completed all prescribed sets for those exercises before moving on to the next exercise(s).

Training Day 2:

EXERCISE	REPS	SETS
Incline Bench Press	8-10	4
Pec Deck	12	2
Preacher Curl	10-12	2
Russian Twist	8	3
Back Extensions	10	3

Training Day 3:

EXERCISE	REPS	SETS
Pull-Up	8-10	4
Cable Rows	8-10	3
Lying Tri Extensions	8-10	3
DB Shoulder Press	8-10	2
Lateral Raises	8-10	2

Stage 3 (Absolute Strength)

Type of program suggested: Some type of training split tailored to your client's schedule

Intensity level: High (80-100+% of 1RM)

Repetitions: 1-5

Total sets per muscle group: Large Muscle Groups: 5-10

Small Muscle Groups: 2-4

Number of exercises per muscle group: 1-2

Rest between sets: 120-240 seconds

Duration: 3-6 weeks

Stage 3 Sample Workouts

For this stage we will use the following split:

TRAINING DAY 1	TRAINING DAY 2	TRAINING DAY 3
Quads	Pecs	Biceps
Hamstrings	Back	Triceps
Calves	Abs/Low Back	Shoulders

Note: Allow at least one days rest between weight training days.

Training Day 1:

EXERCISE	REPS	SETS
Dead Lifts	3-5	6
Stiff Leg Deadlift	5	6
Seated Calf Raises	8	5

Training Day 2:

EXERCISE	REPS	SETS
Bench Press a1	3-5	6
Pull-up a2	3-5	6
Russian Twist	8	3
Back Extension	8	3

Training Day 3:

EXERCISE	REPS	SETS
Barbell Curl a1	5	5
Close Grip Bench a2	5	5
Military Press	5	5

Periodization Models

These periodization models are presented as examples only. While they can be used with success, do not rely on them for every client. Continually educate yourself in the fitness and strength-training field so you can design your own models and tailor them to each individual client. Remember, however, that above all a good periodization model is flexible. Do not be afraid to make adjustments mid-program if necessary.

Deconditioned:

8 weeks	4 weeks	3 weeks	2 weeks	4 weeks
Stage 1	Stage 1a	Stage 2	Stage 1a	Stage 2

2 weeks	4 weeks	2 weeks	3 weeks	3 weeks
Stage 1	Stage 2	Stage 1a	Stage 2	Stage 3

Beginner:

4 weeks	2 weeks	4 weeks	1 week	6 weeks
Stage 1	Stage 1a	Stage 2	Stage 1a	Stage 2

2 weeks	4 weeks	3 weeks	2 weeks	4 weeks
Stage 1a	Stage 2	Stage 3	Stage 1a	Stage 2

Intermediate:

3 weeks	3 weeks	3 weeks	1 week	4 weeks
Stage 1	Stage 2	Stage 3	Stage 1	Stage 2

4 weeks	3 weeks	3 weeks	1 week	6 weeks
Stage 3	Stage 2	Stage 3	Stage 1	Stage 2

Advanced:

2 weeks	3 weeks	3 weeks	2 weeks	3 weeks
Stage 1	Stage 2	Stage 3	Stage 2	Stage 3

2 weeks	4 weeks	4 weeks	3 weeks	3 weeks
Stage 1	Stage 2	Stage 3	Stage 2	Stage 3

Tailoring a Periodized Model to a Client's Goals

As noted earlier very few clients will fit perfectly into the above periodization model examples. Most clients will have some sort of specific goal that they are working towards, making it necessary for you to personalize their program. This is not as hard as it may seem, though. With a few minor adjustments you can quickly tailor a periodized program to any client.

You must first establish what the client's goal is. If you are dealing with a beginner, then their goals will usually be vague, most often revolving around "losing weight and toning up". More advanced clients will have more concrete goals, such as gaining 5 pounds of muscle or adding 25 pounds to their bench press. The more concrete the goal, the easier it will be for you to design a plan. Try to help those clients who do not already have them to form specific goals.

While we are on the subject of client goals, it must also be said that it is your responsibility to make sure that their goals are realistic and that the client is not putting their health at risk trying to achieve them. A great example is women who want to emulate the look popularized on the cover of Cosmo. Most women do not

possess the body structure or body type to achieve this look, yet many have dieted and exercised themselves to exhaustion trying to achieve it.

The same can be said for young men trying to emulate their professional bodybuilding heroes. Once again this is an unachievable look by most, especially without chemical enhancement, yet many people let this quest consume their entire existence, sometimes leading them to experiment with dangerous methods.

It is your job as a fitness professional to guide these clients towards realistic goals and safe exercise and dietary practices. Although a last resort, it may be necessary to drop a client if they absolutely refuse to follow a sound, safe exercise program. You could be held liable if something happens to them while they are working with you, so not only are they putting themselves in danger, but your career as well.

With that said, let's look at how to tailor a program for different goals. Simply put, spend more time in the stage that emphasizes the client's goal. If they want more muscle mass, then double up on the time spent in Stage 2. If they are trying to get stronger, then spend more time in Stage 3. If they are trying to improve aerobic capacity, then add a stage where aerobics are more emphasized than strength training. If they are an athlete and trying to improve relative strength, then do not spend as much time in Stage 2 and spend more time in Stage 3. Once you get a feel for what each stage does for a client you will know what stage(s) to emphasize for their goals.

Amplify your training knowledge even more with [ISSA's Elite Trainer course!](#) Earn the education that enables you to help more clients and make more money!

James Wilson

Optimize Your Programming



As certified personal trainers, we have an obligation to our clients—to encourage them, to make them better, to push them beyond their limits, and to keep them safe while doing it.

What makes us as fitness professionals different from the rank and file fitness enthusiast trying to help their friends is the knowledge and education we work so hard to keep up to date. And, that extensive knowledge of exercise science should be reflected in each exercise program we make for our clients. But all too often, we end up seeing the same techniques employed across the board, regardless of the individual fitness goals of the client in question. What we're going to do today is go over a method for optimizing your program to ensure you aren't just giving them the same old program they could get anywhere online.

You are the secret sauce. Equipped with the fitness tools you learned when getting your personal training certification, you stand in the unique position to affect positive change in the lives of your clients. And that's a special responsibility. Sometimes, though, even the best of us run out of creative juices. So, what do you do when you feel tapped out in terms of piecing together a unique program for each individual? The answer comes down to your process.

Making Artwork with a Fitness Program

For professional artists like musicians, illustrators, writers, etc., their ability to earn a living often comes down to having a process in place for creating. We can learn from this when structuring personal training sessions for our clients. Whether the workout program consists mainly of strength training, conditioning, balance training, or anything in between, it's important to remember that these concepts are the end result of the process, not the beginning.

Looking at each client as a blank canvas is an important component to putting a proper process in place. Whereas you can have a basic template to start with for a workout plan, the template should be more about analyzing where your client is and what their goals are, as opposed to having pre-planned workouts and the like as a “basic” or beginner section. Even those who are new to health and fitness will still be unique.

So, we're going to approach developing a personal training program from that perspective—the blank canvas. This is what will make your training sessions, and eventually your overall training program, so much more effective.

To Start, It's All About Listening

Anyone can go online and find a program for working out. What clients get from you that they can't get from random articles is your expertise, knowledge, and experience. Whether you're trying to be the rockstar trainer at your gym or trying to make your own personal training business succeed, everything begins with listening.

What are their goals? What is their motivation? Have they tried to achieve these goals before? What about injuries or health conditions? This might seem obvious, and many trainers ask these questions, but unfortunately, many are only passively listening, just waiting for their opportunity to get in their pitch as opposed to learning about what their clients need.

Some would say that you should begin with a fitness assessment right out of the gate. But, what's the good of a standard fitness test if the client can't perform some of the exercises within your assessment? Furthermore, being a trainer isn't only about doling out workout routines. It's also about being your clients' source of accountability.

So, pay attention to what they tell you. Try to investigate their triggers. Where are they vulnerable? What causes them to eat off their nutrition plan? What makes them skip workouts? What workouts do they hate and thus avoid? And what are some strategies they can employ to push through these moments?

Most clients end up terminating their relationship because they fail to get results or because they feel stagnant. Learning about them and what can make them successful will allow you to nip issues in the bud long before they get to this point. Focus on maximizing their health and well-being. Listen well, and you'll be well on your way to a positive beginning.

Start with a Plan

Like with the artists, you need to develop a process. Whereas your programming shouldn't be templated, your process very much can be. Once you've listened to your client and learned about their goals and needs, you can start with the physical aspect of fitness training. From their goals, needs, and preferences, you can start developing a workout program that will be the winner.

Overall, a successful process, or plan, will usually look something like this:

1. Listen to their goals and needs.
2. Determine exercise metrics in alignment with their goals.
3. Put those exercise metrics together into a fitness assessment.
4. Based on performance in the assessment, develop programming targeted to improvement.
5. Re-test them at regular intervals.
6. Adapt your programming based on performance.
7. Repeat as their fitness level improves.

Furthermore, you want to incorporate elements of their life in the plan.

- Do they spend eight hours a day sitting? See what you can do to encourage them to move throughout the day.
- Do they already take their dogs for walks? Try to get them to stretch that out a little bit, getting every bit of physical activity you can out of them when they aren't with you.

Make sure you are targeting your approach to their day-to-day lives as well as what they're doing in the gym.

This type of customization is the nature of what makes your training certification so valuable. Give them in your sessions [what they can't get anywhere else](#).

Finding the Right Metrics

Standard fitness assessments test for things like target heart rate, physical strength, balance, and endurance. These elements are all great in generalized fitness, but ultimately, what are your clients' goals? This will allow you to develop your own fitness assessments that are targeted towards your client seeing the improvements they want to see.

Now, sometimes, you have to push back a little bit. If you're dealing with someone who only wants to bulk muscle, yet hasn't ever really performed proper strength training, they're going to need to start with something much more basic. One way to handle this is to show them the road map. Let them know that in order to get into the type of training they're asking for, they're going to need to start with the basics. Otherwise, there could be a serious risk of injury. Make sure they're heard, but also make sure to manage their expectations.

So, if you have a client who is looking to lose body fat, you know the exercise route to this is going to involve increasing their basal metabolic rate via resistance training. As such, think of exercises that are resistance-

based and easily performed at regular intervals. This could be push-ups or squats if they've never touched a weight before, or if they have more experience, it could include some more advanced strength and conditioning exercises. The important part is that it should be tailored to what they're seeking.

Don't ignore the basics of what the fitness assessment is also tracking. In this technique, we're just recommending that you adjust what you do to make it as relevant as possible to your client's goals. This will help to ensure the client understands you have heard them and are working with them towards their specific, unique goals.

Programming for Success and Communication

Again, this comes down to a process. You don't exactly have a blank canvas now, with the fitness assessment you've conducted, you now know where they stand. And this should guide your programming from day one. Every aspect of the fitness assessment should be targeted and improved, but you should also direct more attention to the elements of the fitness assessment to which they performed worst.

Make sure that, in each step of the process, you're explaining to them what you're doing and why. Demystifying the personal training experience for them will make them more confident in your abilities and will make your process easier for the client to understand, increasing the likelihood of their adoption and success.

The fitness industry has a problem with common "rinse, recycle, repeat" where everything is a one-size-fits-all template. This might work for larger group training systems, health clubs, and other such businesses, but they're targeting a more general consumer. When someone opts to use a personal trainer's services, they're looking for your unique style. Imagine how you would feel paying more for a service and still just getting the status quo. Show them your attention to detail in what they're wanting. Demonstrate your expertise by tailoring their program to their life.

Just remember, at the end of the day, follow the process. Re-administer the fitness assessment at the right periods, every six weeks or so. This is a great way to see where clients are improving, as well as to see where you need to adjust your programming to meet their goals.

If they're strengthening in one area and staying stagnant in another, it's time to tweak your exercises to whatever will improve that performance. This process is involved, but it's going to give your clients a practical way to not only see their improvement but to feel it as well.

Coach Clients to Success

Fitness coaching is such an important element of what we do as personal trainers. Coaching is where the programming meets the real world. They will likely be sore in ways they haven't been before. Do not forget to incorporate techniques for proper recovery. This way, they will get both the results they're looking for as well as the energy to take on your next session.

And don't forget that you can find clients for anything fitness related. Often, runners will think that they don't need to spend time in the gym to improve their personal record or to make a difference on their 10k run time. This is where you can use your knowledge and expertise to show them that time with you can [make that difference happen](#).

Coaching is a specialization that ISSA offers, and learning to specialize here can make a huge difference in how you interact with your clients and change their lives.

Inspired and motivated to make a difference? Don't let anything stand in your way! Learn how to take your personal training career online with the [ISSA Online Coaching Certification](#). It's the fastest way to jumpstart your training business and earn money from home!