

Zach Moore Training & Nutrition

The 15 Essential Exercise Principles For Building A Lean Strong Healthy Body.



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Introduction

In life, there is no greater gift you can give yourself than to build a body that is strong and stable, a body that is healthy and functional, and a body that lets you feel truly confident in the way you look.

Unfortunately, so many of us will reach a point in our lives where we will lose our strength, lose our stamina, and lose our ability to move without pain.

So many of us reach a point in our lives where our weight, cholesterol, and blood pressure will become dangerously high.

And so many of us reach a point in our lives where we will become unhappy with the way our body looks because of the body fat we've gained and the muscle tone we've lost.

For so many of us, at some point in our lives, these issues will become our reality.

But, thankfully, by incorporating regular exercise, you have the power to make profound changes to the way your body looks, feels, and functions.

By incorporating regular exercise, you can lose weight, build strength, and tone your body. You can increase your flexibility, improve your mobility, and reduce your chronic pain. And by incorporating regular exercise, you can improve nearly every aspect of your internal health.

But... something tells us you've heard this before.

At Zach Moore Training & Nutrition, the vast majority of the individuals we work with come to us because they *know* the benefits of exercise, they *want* to make exercise a regular part of their lives, but they are struggling with how *to actually do so*.

Our clients come to us because they are struggling with the fundamentals and have *key* questions such as...

- I know I need an exercise program built specifically for me, but what criteria should I base my program on?
- I am very concerned about getting injured when I exercise. How do I push myself while keeping myself safe?
- I have old injuries that are impacting my ability to move and exercise without pain. How should I address these issues?

- What types of exercises should I be doing? Should I be focused on weight training, cardiovascular training, or both?
- How hard and how often do I need to exercise to see results?
- I have limited time to exercise. How do I get the most out of my workouts in the least amount of time?
- My shoulders, neck, back, and hips have become tight, immobile, and painful. What should I do?

At Zach Moore Training & Nutrition we know how difficult and overwhelming trying to make exercise a part of your life can be. We hear your questions, we understand your concerns, and we are here to help.

My team and I have over fifty years of combined experience building and implementing the safest, most effective, and most sustainable exercise programs.

We have coached students ranging from former collegiate division one athletes, to weekend warriors, to students completely new to exercise.

And what our years of experience have taught us is that to build a lean, strong, healthy body safely and efficiently there is a core group of exercise principles you need to follow.

Now, we want to share these principles with you.

What you will find in the following pages is our team's guidance on how to build a lean, strong, healthy body outlined through fifteen critically important exercise principles.

These principles have formed the backbone of every program we have built for every student we have coached. These principles are responsible for so much of the great success our clients have achieved. And now we are excited to share these principles with you.

As we said, there is no greater gift you can give yourself than to build a body that is strong and stable, a body that is healthy and functional, and a body that lets you feel truly confident in the way you look.

So take these principles, apply them, and build for yourself the leanest, strongest, and healthiest version of you imaginable. We promise doing so will be one of the most fulfilling achievements of your life and will lay the foundation for your long-term health and happiness.

Principle One: Prioritize & Clearly Define Your Goals:

Prioritize Your Goals

When you are ready to start incorporating exercise into your life and start building a leaner, stronger, and healthier you, you may have a number of goals you want to achieve.

You may want to lose weight, get stronger, and tone your body. You may want to improve your mobility, your flexibility, and your balance. And you may want to build your stamina, reduce your chronic pain, and improve your health.

And you may want to address all of these goals all at once.

We hear you.

But to build an effective exercise program you have to *prioritize your goals*.

Now, prioritizing your goals is important for two reasons.

1. Different goals require different approaches. For instance the exercises and intensities used to lose weight are different from the exercises and intensities used to sculpt specific body parts, which in turn are different from the exercises and intensities used to reduce tightness and pain.
2. As a busy, hard working adult you are simply not going to have enough time to focus on every one of your goals at once.

What you need to do is identify your two goals that are *most* important to you *right now* and select your exercises and intensities to address those two goals first.

Once you have made significant progress in those two areas you can reprioritize and begin to dedicate time to secondary goals.

But chances are, especially in the beginning, working on your two main goals is going to require all of the limited time and energy you can dedicate to exercise.

So prioritize, focus, and address just your two main goals first.

Clearly Define Your Goals

Once you have identified and prioritized your two main goals, you have to specify them.

It is not enough to say, “I want to lose weight,” or “I want to be healthier” or “I want to get stronger.”

You need to be specific.

- If you want to lose weight, you need to specify how much you want to lose and in what period of time.
- If you want to get stronger, you need to specify the movements and parts of the body you want to strengthen.
- If you want to tone and sculpt your body, you need to specify the body parts you want to define.
- If you want to improve your flexibility, you need to specify which motions and parts of your body you want to improve.
- If you want to improve your health, you need to specify the metrics you want to improve. (For instance your blood pressure, your cholesterol, improving insulin sensitivity, etc.)
- If you want to feel better, you need to specify what that means. (For instance improving physical energy, mental acuity, reducing back, hip, shoulder or knee pain, etc.)

To accomplish your goals you need to choose the right exercises and the right intensities, but this is impossible if your goals are too vague.

Once you have identified and prioritized your two main goals, clearly define and specify them.

Then you'll be ready to start making some real progress.

Your Turn

Now it's your turn.

You know you need to prioritize your goals and then clearly define and specify them.

So let's do it.

First, use the space provided to outline your two main fitness goals and remember; be clear, be specific, and be detailed.

Next, write down why you want to achieve these goals. What is driving you?

And finally, write down the three main ways you think achieving your goals will benefit your body, your emotional well-being, and your life in general.

Primary Goal 1

Primary Goal 2

Why You Want To Achieve Your Goals

The Benefits of Achieving Your Goals

Principle Two: Only Use a Personalized Program Built Around These Six Criteria

Why You Need a Personal Program

Now that you have prioritized and clearly defined your goals, you are ready to start choosing your exercises and building your program.

Now, we know the idea of trying to build a safe and effective exercise program probably seems like an overwhelming task.

We hear you.

And we know that because of this you may be tempted to follow a pre-built, one size fits all program.

We understand.

But please, don't do that.

Pre-built, cookie cutter programs are inefficient and dangerous.

Think about this... A pre-built one size fits all program will tell you, someone with a unique body structure, injury history, and fitness level to do the exact same exercises and at the exact same intensities as someone with a completely different body structure, injury history, and fitness level.

How is that effective? How is that safe?

It's not.

That is why it is so important for you to follow a personalized exercise program.

How To Build a Personalized Program

To build a safe and effective personal exercise program, there are six key criteria you need to take into account.

1. Your Primary Goals.
2. Your Anatomy and Body Type.
3. Any Injuries That May be Impacting You.
4. Any Underlying Medical Issues That May be Impacting You.
5. Your Current Level of Fitness and Your Experience With Exercise.
6. Your Schedule.

Your Primary Goals

As we discussed in Principle One: Prioritize And Clearly Define Your Goals. Different goals require different approaches. If your goal is to lose weight, you are going to need to use different exercises and intensities than if your goal is to sculpt your body. And if your goal is to sculpt your body, you are going to need to use different exercises and intensities than if your goal is to reduce chronic tightness and pain.

Your Anatomy and Body Type

Your body is unique and has natural strengths and weaknesses. You may be naturally lean, but struggle to build and maintain muscle. You may be naturally strong and sturdy, but hold onto body fat more stubbornly. And each of us has different limb and torso lengths. Each of these unique characteristics will influence the exercises and intensities you need to include in your exercise program.

Any Injuries That May be Impacting You

The impact of any injuries you have suffered in the past and any chronic pain you still manage (whether slight or severe) will heavily influence what exercises and intensities you can, and need, to use.

For instance, if you have suffered a lower back injury or are affected by chronic lower body tightness, certain lower body exercises such, as squats and deadlifts, may be inappropriate for you. Or if you suffer from certain types of shoulder pain many overhead exercises may be inappropriate for you.

Any Underlying Medical Issues That May be Impacting You

Just as your injury history will influence the exercises and intensities you select, so will any underlying medical issues you may be dealing with.

For instance, if you are impacted by particularly high blood pressure, very high intensity cardiovascular exercise and heavy weight training may be too dangerous for you at first. As a result, you may need to focus on less intense exercise, emphasizing longer distances and more repetitions (as opposed to faster speeds and heavier weights) until you can reduce your blood pressure to safer levels.

Or if you are a women managing Polycystic Ovarian Syndrome, you may want to include more cardiovascular exercise than resistance exercise due to higher levels of androgen hormones.

Or if you are an adult over the age of forty-five, you may want to include more resistance exercise than cardiovascular exercise to stop the natural degradation of lean muscle, strength, and functional power that come with aging.

Your Current Level of Fitness and Your Experience with Exercise

If you are new to exercise, or are returning from a long layoff, many exercises and intensities will be too difficult for you at first. In this case, you'll want to choose basic exercises and manageable intensities so you can gradually build up your strength, conditioning, and expertise. Once you've built a strong base, then you can start incorporating more technically difficult and strenuous exercises.

Your Schedule

Your workout routines and the exercises you choose will be heavily influenced by how much time you have to exercise. The more time you can dedicate to exercise the wider the variety of exercise you can include. But if your time is limited, you have to be very selective and include only the most productive and effective exercises.

Your Turn

Now that you have a better understanding of the six criteria that will impact your exercise program, take some time to explore them in more depth.

Use the space below to describe your body type, your injuries, your medical issues, your experience with exercise, and your schedule.

And just as you did when describing your goals in section one, be clear, be specific, and be detailed. The more clear information you provide, the safer and more effective an exercise program you'll be able to develop.

(Since you already outlined your goals at the end of section one, there is no need to detail them here again.)

Your Anatomy and Body Type

Any Injuries That May be Impacting You

Any Underlying Medical Issues That May be Impacting You

Your Current Level of Fitness and Your Experience with Exercise

Your Schedule

Principle Three: Prioritize Your Safety And Long Term Health Above Everything Else

When you run, jump, and lift you force your muscles, tendons, ligaments, and bones to withstand various types of stress.

And when your body is forced to handle physical stress, including from exercise, naturally, there is at least some inherent risk of injury.

Now does the risk of injury mean you should avoid exercise altogether?

Of course not!

Incorporating exercise is one of the best decisions you can make for your body and is key for getting lean, building strength, and improving your health.

What the risk of injury does mean, though, is that *you need to be very careful when you exercise and you have to prioritize your safety and long-term health above everything else.*

Always Use *Excellent* Form

The most valuable action to take to ensure your safety and long-term health is to make sure you do every repetition of every exercise with excellent form. And if you reach the point where you cannot do another repetition with excellent form, stop!

We cannot stress this enough.

Exercise, whether cardiovascular work or resistance training, is fantastic for you, but only if you use excellent form.

When you exercise with great form you reduce your preventable injury risk to almost zero.

However, *if you continuously exercise with poor form you seriously risk suffering an acute injury or developing an overuse injury and chronic pain.*

Rule #1

To ensure you maintain excellent form when exercising, first, genuinely dedicate time to mastering the form of the exercises you plan to use.

We know that performing repetition after repetition of a given exercise with light weights and at slow speeds isn't the most exciting way to train, but laying a strong foundation of form is critically important.

Rule #2

Second, if for whatever reason you just can't seem to nail the form for a given exercise, it's fine, just don't do that exercise.

Find another exercise that works the same muscles, that you can do with correct form, and use that exercise instead.

Rule #3

Third, do not compare the exercises you are doing, the weights you are using, or the speed at which you are going to other people in the gym.

Never try to measure up to or show off for others.

And never use weights that are too heavy, or speeds that are too fast, for you to be able to maintain excellent form.

Be Patient

We know you are eager to increase the intensity of your workouts and start seeing results as soon as possible. We hear you. But you have to be patient and take your time. Rome wasn't built in a day.

Take the time to master your form, always maintain your form, and when you can no longer do another repetition with excellent form, stop.

Follow these rules and you will lay the groundwork for a safe and sustainable exercise program and you will maintain your long-term health.

Your Turn

The best way to ensure your safety going forward is to learn from your past.

In the space below take some time, think about your exercise habits, and try to answer the following questions honestly.

There are no right or wrong answers here, just opportunities to learn from your past and apply your new knowledge going forward.

Do you take the time to master the form of a new exercise before increasing the difficulty or do you normally start to increase the difficulty before you have mastered the form?

Do you feel like you are able to perform the exercises you use regularly with excellent form every time? If not, what parts of the exercises you normally use do you struggle with?

Are there exercises you would like to start using, but don't feel comfortable enough with? Do you have a plan on how to learn these exercises?

Do you find you often use weights that are too heavy or speeds that are too fast for you to perform your exercises with excellent form?

Can you remember a time you did something unsafe in the gym? What were the reasons? What were the outcomes? What do you wish you had done differently?

Principle Four: Keep Your Exercise Program Simple. Master And Rely On The Fundamentals

You may be under the impression that to build a lean, strong, healthy body you have to include advanced and complex exercises in your workouts.

Exercises like Olympic lifts, kettle bell swings, and exercises like squatting on a balance board while holding a weight over your head.

Now, do these complex exercises have a place and provide value for advanced individuals looking for a particular and intense challenge?

Yes.

But do you *have to* include these types of exercises in your program to build a lean, strong, healthy body?

No.

In fact, the best, most effective, and safest exercise programs are often very simple in their approach, emphasizing basic exercises based on basic human movements. (For instance exercises such as squats, deadlifts, lunges, and hip thrusts for the lower body. Push ups, rows, overhead presses and pull-downs for the upper body. And plank based exercises for the core.)

The Power of the Basics

So what makes basic exercises so powerful for building a lean, strong, healthy body safely and efficiently?

- ***Basic exercises are less dangerous than advanced exercises.*** By emphasizing basic movements over advanced techniques you will significantly reduce your risk of injury.
- ***Basic exercises are (far) easier to learn than advanced exercises.*** By emphasizing basic exercises over advanced exercises you can increase the difficulty of your workouts sooner and get results faster.
- ***Basic exercises are the foundation upon which advanced exercises are based.*** Eventually, if you do want to add advanced exercises to your program, you'll need to master the basic exercises that precede them first. (For

instance, you have to learn to deadlift before you can learn to swing a kettle bell.)

Keep It Simple

We know that advanced exercises have a draw to them. They are impressive, elite athletes use them, and they are challenging.

But the vast majority of us are not elite athletes.

When you build your exercise program, keep it simple, keep it basic, and master the fundamentals.

By doing so you will significantly decrease your risk of injury and significantly increase the overall effectiveness of your exercise program.

Your Turn

Now that you understand why you should keep your exercise program simple and stick to the basics, think back on the exercises you have used in the past.

Have you ever tried to use an exercise you thought was too advanced for you? If so, why?

How did you feel while doing this exercise?

If you had used a simpler exercise how would that have changed your experience?

Principle Five: Always Listen To And Address Your Pain

The Role of Pain

Here at Zach Moore Training & Nutrition we cannot tell you how many times we have seen someone ignore an injury and try to push through pain.

Sometimes this occurred because the individual cared more about achieving his or her goals than about his or her long-term health.

Sometimes this occurred because the individual was in denial about the severity of his or her injury.

Sometimes this occurred because, although the individual understood that something was not right, he or she simply did not care to address the issue.

(For the record, these were not our clients. We would *never* let our clients do this. These were other individuals from other gyms my team and I frequented.)

But let us be as clear: ***Ignoring an injury and trying to push through pain is one of the worst exercise decisions you can make.***

Pain is your body's way of telling you that a muscle, tendon, ligament, bone, etc. has been physically damaged.

Pain is your body's way of telling you that it is unsafe to continue to use that damaged structure.

And pain is your body's way of telling you that you need to rest, heal, and rehabilitate that damaged structure.

Ignore these signals and you *will* cause further damage to your injured structure and you risk setting off what is known as an injury cascade.

From Bad to Worse

The first serious consequence of ignoring an injury and trying to push through pain is that you will continue to make your injury worse, potentially causing a catastrophic failure.

A perfect and unfortunately all too common example of this is how low level non-specific shoulder pain can evolve into a torn rotator cuff.

Often non-specific shoulder pain is simply the result of compression within the shoulder caused by tight chest, shoulder, and outside back muscles combined with weak rotator cuff and mid back muscles.

Now, if addressed early, non-specific shoulder pain can often be eliminated relatively easily with foam rolling, stretching, and basic strengthening exercises.

However, if left unaddressed, this combination of tight and weak muscles and the dysfunction they cause can lead to a shoulder impingement.

A shoulder impingement is a much more serious issue and occurs when the sub acromial space (the area just below your clavicle and above the structures of your shoulder joint) shrinks and causes compression of your rotator cuff tendons.

Taking it one step further, if a shoulder impingement is left unaddressed it will lead to rotator cuff sheering and can eventually lead to a full rotator cuff tear, a particularly serious injury that requires major surgery and a lengthy rehabilitation process to fix.

The Dreaded Injury Cascade

The second serious consequence of ignoring an injury and trying to push through pain is that you risk setting off what is known as an injury cascade.

An injury cascade is the phenomena of an initial injury contributing to a second injury, which in turn contributes to a third injury and so forth.

Injury cascades occur when you try to push through an injury because the damaged muscle, tendon, ligament, etc. is no longer physically capable of handling the stress you are forcing it endure.

As a result, complementary structures (muscles, tendons, ligaments, joints, connective tissues, etc.) are forced to handle more stress than they are physically capable of and they themselves become overburdened.

In turn, this overburden then causes a second structure to fail, which then forces the remaining structures to handle even more stress, which leads to even more structural failures, and so on.

Address Your Injuries and Listen to Your Pain

We understand you are eager to achieve your goals and, yes, taking time to address your injuries and pulling back when you feel pain will slow down your progress.

But failing to address your injuries and trying to push through pain is extremely dangerous.

So let us be clear: ***to build a lean, strong, healthy body safely and effectively you must address your injuries and stop when you feel pain.***

Your Turn

Now that you understand why addressing your injuries and listening to your pain is so important, it is time to start the process.

In the space below detail any injuries or issues that are impacting your ability to exercise and move freely and without pain.

Be as detailed as you can be.

Write down what caused your injury, how long it has been impacting you, during what motions you feel pain, and any other important details you can think of.

Injury / Issue #1

Injury / Issue #2

Injury / Issue #3

Injury / Issue #4

Injury / Issue #5

Principle Six: Make Resistance Training A Central Part Of Your Exercise Program

When the time comes to start incorporating exercise, your initial instinct may be to start with some form of cardiovascular exercise, perhaps running or spinning.

This initial instinct is solid as cardiovascular exercise helps improve cardiovascular health, and if done in very large quantities, can aid in weight loss.

However far too many individuals make the same critical mistake: They focus solely on cardiovascular exercise and fail to include resistance training in their overall exercise program.

But to build and maintain a lean, strong, healthy body, you have to make resistance training a central part of your exercise program.

Now, is cardiovascular exercise beneficial? Yes. And should it be included in your overall exercise program? Most likely. (Although as we will discuss in Principle Ten, probably not in the form you think.)

But neglecting resistance training is a critical mistake as resistance training endows key benefits that cannot be obtained any other way.

Benefit of Resistance Training #1: A Toned, Sculpted, and Attractive Body

Whether you are a man or a woman, the way you build a physically attractive body is to reduce your excess body fat and build, tone, and sculpt specific key body parts.

And whether you are a man or a woman, the only way to build, tone, and sculpt a specific body part is to build lean muscle throughout that body part.

And whether you are a man *or a woman*, the only way to build lean muscle throughout a specific body part is to resistance train that body part.

If you want a bigger chest, a stronger back, broader shoulders, and thicker arms, or if you want a higher, fuller, firmer butt and lean, toned, and sculpted legs, ***you must incorporate specific resistance training exercises that target and build lean muscle throughout the body parts you want to develop.***

(You also *must* follow the principle of progressive overload, which we will cover in Principle Eleven, and exercise the muscles you want to develop at least twice a week, which we will cover in Principle Twelve)

Benefit of Resistance Training #2: Increased Physical Abilities and Reduced Injury Risk

Resistance training is the key to building strength and neuromuscular efficiency. (Neuromuscular efficiency is the ability to connect to, use, and coordinate your muscles effectively).

Strong, responsive, and coordinated muscles are what enable you to perform essential every day activities such as standing up, walking, climbing stairs, carrying heavy bags, and picking up heavy boxes (to name just a few) safely and easily.

Strong, responsive, and coordinated muscles are what enable you to excel during athletic activities and run, jump, cut, twist, hit, and strike (a ball like a tennis ball or golf ball) with force, power, accuracy, and authority.

And strong, responsive, and coordinated muscles keep you balanced, keep your joints stable, and absorb impact when you move. All of which dramatically reduce your injury risk and the likelihood you will suffer from long-term chronic joint pain.

Benefit of Resistance Training #3: Increased Levels of Testosterone

Resistance training is the single the most effective way of naturally increasing your testosterone levels, which has key health benefits if you are a man *or a woman*.

Testosterone plays a central role in metabolism, enabling you to efficiently break down and use stored body fat to fuel activity. (This is essentially the process of how you lose weight.)

Testosterone plays a central role in building protein that can then be used to build new lean muscle. (This is a simplified description of a long process and complex relationship, but it accurately summarizes the gist of testosterone's relationship with lean muscle.)

Testosterone has a substantial impact on libido, sexual function, cognitive and neurological function, mood, and general energy levels.

And testosterone has a significant impact on the function of many other key hormones, in essence increasing their potency and effectiveness.

Make Sure You Resistance Train

When it comes to building a lean, strong, healthy body, resistance training is simply one of the single most beneficial and important activities you can engage in.

Resistance training will make you stronger, healthier, happier, sharper, and leaner and resistance training is the foundation of a toned and sculpted body.

Simply put, to build a lean, strong, healthy body, you must make resistance training a central part of your exercise program.

Your Turn

Now that you understand the many benefits of resistance training, think about the role resistance training plays in your exercise program.

Is resistance training already a central part of your exercise program? If not, why not?

As it relates to your specific goals, do you think adding more resistance training would be beneficial? If so, how? And if so, can you identify specific exercises you think you should add?

If you would like to add more resistance training into your exercise program, do you have a plan for doing so? If so, what is your plan?

Principle Seven: When Resistance Training Emphasize Compound Exercises Over Isolation Exercises

Now that you understand the benefits and critical importance of resistance training (for both men *and* women) it is time to address the types of exercises you need to include in your resistance-training program.

Compound Exercises Versus Isolation Exercises

When it comes to resistance training there are two main types of exercises you can use: compound exercises and isolation exercises.

Compound exercises are exercises that include movement of and around two or more joints and work two or more muscle groups at the same time. For instance exercises like squats, deadlifts, lunges, push ups, rows, and lat pull downs are all examples of compound exercises.

Isolation exercises are exercises that include movement of and around one joint and work one muscle group at a time. For example exercises like bicep curls, triceps extensions, side shoulder raises, quadriceps extensions, and hamstring curls are all examples of isolation exercises.

Now the exact exercises you need to include in your resistance-training program are personal and dependent on the six criteria we outlined in Principle Two, but generally speaking to maximize the efficiency and efficacy of your exercise program you want to emphasize compound exercises over isolation exercises.

A good rule of thumb here (again, generally speaking) is to make at least 80% of your exercises compound exercise.

Why Emphasize Compound Exercises?

We advocate emphasizing compound exercises over isolation exercises for one very simple reason: ***by emphasizing compound exercises over isolation exercises you will build a better looking, stronger, and more coordinated body, and do so faster, more efficiently, and in less time.***

But what makes compound exercises so much more effective than isolation exercises?

1. **Compound exercises work multiple muscles simultaneously while isolation exercises only work one.** For example, when you perform a bicep

curl you are only working your biceps muscle. But when you perform a seated row, you are working your biceps, your forearms, and basically every muscle throughout your upper back. (Including your lats muscles, your upper, middle, and lower trapezius muscles, your rhomboids, and your rear shoulder muscles.)

2. **You can lift far heavier weights with compound exercises than with isolation exercises**, which, (as we will cover in depth in Principle Twelve) is key for developing strength and fully toning and sculpting your physique.
3. **Compound exercises build intramuscular coordination**, which is the ability to use multiple muscle groups at the same time and is essential for all types of movement, from standing up to jumping and sprinting.

When To Use Isolation Exercises

Isolation exercises do have their time and place.

For instance if you have a specific muscle or body part you want to train very intensely, and especially if you want to develop that muscle or body part without working the muscles surrounding it, isolation exercises can be a very effective way of accomplishing this goal.

In addition many rehabilitation and joint health exercises that need to be incorporated into your resistance-training program to ensure the long-term health of your joints and muscles are isolation exercises.

Emphasize Compound Exercises Over Isolation Exercises

The exact exercises you include in your exercise program need to be based upon your body, your goals, and your abilities.

But in general, to build a lean, strong, healthy body as efficiently as possible, emphasize compound exercises over isolation exercises at a ratio of about 80% to 20%.

By doing so you will work more muscles in a shorter period of time, you will work your muscles more intensely, and you will build vital intramuscular coordination.

Your Turn

Now that you understand the benefits of emphasizing compound exercises over isolation exercises, think about the exercises you use when you resistance train.

When you resistance train, do you mainly use compound or isolation exercises?

Are you following the 80%-20 rule?

If your exercise program incorporates proportionally more isolation exercises than it should, can you think of compound exercises you could incorporate to make it more effective?

Principle Eight: Incorporate Unilateral Exercises. AKA Work Each Side Of The Body Independently

Here at Zach Moore Training & Nutrition, when we analyze our new clients' existing exercise programs, we often see a similar mistake: an over reliance, or even an exclusive reliance, on what are known as bilateral exercises.

Bilateral exercises are exercises that work both the left and the right side of the body simultaneously.

Common examples of bilateral exercises include squats, deadlifts, push ups, and two-handed rows. (To name just four from literally hundreds of commonly used bilateral exercises.)

Now, bilateral exercises are great for building strength, power, and muscle tone, and great for maximizing work in short periods of time, but they have one major drawback.

Muscular Imbalances

An unfortunate consequence of being human is that the muscles on the left and rights sides of your body are often unequal in terms of strength, power, and stability.

These discrepancies occur as a natural byproduct of being one side dominant (right or left handed) but also develop as a result of injury.

If left unaddressed, these discrepancies lead to reductions in performance, an increased risk of injury, chronic tightness, discomfort, and pain.

Now, as we addressed in Principle Three, taking steps to prevent future injuries and address chronic issues are key parts of building an effective and sustainable exercise program.

One of the best ways to accomplish these objectives is to regularly include what are known as unilateral exercises in your exercise program, which are exercises that work the left and right sides of your body independently.

The Value of Unilateral Exercises

What makes unilateral exercises so valuable is that ***unilateral exercises enable you to train the muscles of your weaker and less stable side to its fullest capacities.***

When you perform a bilateral exercise, your stronger side naturally contributes more strength, power, and stability than your weaker side, essentially acting like a crutch your weaker side can lean on.

But when you use a unilateral exercise you expose your weaker non-dominant side to the full weight and balance demands of that exercise.

At first incorporating more unilateral exercises will be difficult and you may notice a significant difference between the left and right sides of your body.

This is normal and to be expected, but keep pushing. To balance your strength, stability, and reduce your risk of injury you need to use unilateral exercise and force your weaker, less stable side to adapt accordingly.

Examples of Easy To Use Unilateral Exercises

There are literally thousands of unilateral exercises you can use to train the various parts of your body, but for the sake of avoiding information overload we have decided to only list the most commonly used unilateral exercises for each body part.

For the Quads and Glutes:

1. Forward Lunges
2. Reverse Lunges
3. Static Lunges (Also known as Split Squats)
4. Rear Foot Elevated Static Lunges (Also known as Bulgarians Split Squats)
5. Step Ups.
6. Single Leg Leg Press

For the Hamstrings and Glutes:

1. Toe Touches (Also known as Single Leg Deadlifts)
2. Single Leg Hip Bridges
3. Single Leg Hamstring Curls

For the Chest and Shoulders:

1. Dumbbell Press
2. Dumbbell Incline Press
3. Dumbbell Shoulder Press
4. Dumbbell Lateral Raises

For the Back:

1. Single Arm Seated Rows
2. Single Arm Bench Supported Rows
3. Bench Chest Supported Dumbbell Rows
4. Single Arm Cable Rows
5. Single Arm Lat Pull Downs.

For the Arms:

1. Dumbbell Curls
2. Dumbbell Triceps Skull Crushers

Incorporate Unilateral Exercises

Bilateral exercises are great for developing strength, muscle tone, and maximizing work in short periods of time.

But you're human (hopefully...) and that means you have muscular imbalances, strength discrepancies, and stability differences between the left and right sides of your body.

To optimize your performance, reduce your chronic pain, and prevent future injuries you need to address these differences.

So be sure to include unilateral exercises in your exercise program. They are instrumental in addressing weak points, they balance your body, and they lay a sound foundation for future development.

Your Turn

Now that you understand the value of unilateral exercises, once again, think about your training program and the exercises you use when resistance training.

When resistance training, have you noticed any discrepancies in strength, stability, and stamina between the left and right sides of your body? If so, where?

When resistance training, do you regularly incorporate unilateral exercises or do you use almost exclusively bilateral exercises?

Given what you now know about the benefits of unilateral exercises, how do you think incorporating more unilateral exercises could benefit your body specifically? Are there specific areas of concern you feel could be improved with unilateral exercises?

Principle Nine: Never Round Your Lower Back When Lifting Weights

As we discussed in Principle Six, to build a lean strong healthy body you need to make resistance training a central part of your exercise program.

And as we discussed in Principle Three, when you resistance train you need to make sure you always perform every repetition of every exercise with excellent form.

Now to build a lean, strong, healthy body safely and efficiently there are many exercises to learn and techniques to master and we would need to write an entire book to address them all individually.

However there is one particular form fault that is both so dangerous and so common we felt the need to address it specifically: rounding your lower back when lifting weights.

What Happens When You Round Your Lower Back When Lifting Weights

When you round your lower back, (think bending over to touch your toes,) your intervertebral discs (the discs that sit between your vertebrae) are pushed backward in their respective space and toward the backside of your spine.

Now the various structures of your spine are designed to handle this basic and essential movement, (if they weren't we all would be in serious trouble) but only when this motion is performed without significant external load. (As in the difference between bending over to pick up a pencil versus bending over to pick up a barbell loaded with weights.)

However, when you bend over and round your lower back when picking up even a moderate amount of weight, the amount of pressure applied to your intervertebral discs is multiplied exponentially.

Over time, if you continually round your lower back when lifting weights, the cumulative stress will overload the casing keeping your discs in place and can cause one or more of your intervertebral discs to rupture. (This is what herniating a disc is.)

The Impact of a Herniated Disc

When an intervertebral disc ruptures, it protrudes into the space through which your primary lower body nerve runs. When this occurs your disc will pinch your nerve between it, and the back of your spinal column. And when your nerve gets pinched between your ruptured disc and the back of your spinal column it will cause

tightness, discomfort, and potentially extreme pain throughout the lower body. (Sciatica.)

Thankfully this scenario is completely avoidable.

How To Prevent a Herniated Disc

The key to preventing a disc herniation is to make sure you always keep your lower back tight, strong, and in a neutral position any time you perform an exercise that requires you to lift or handle weight from a bent over position.

Exercises like deadlifts or bent over rows for instance.

To do this, instead of simply bending over, you need to hinge at your hips, drive your butt back, and tighten your lower back and core muscles.

Never Round Your Lower Back When Lifting Weights

Without exaggeration the most important part of maintaining your long term health and function is maintaining the health and structural integrity of your spine.

This is why it is ***absolutely essential you do not round your lower back when lifting weights.***

Doing so leads directly to a herniated disc and the countless negative effects that follow.

When performing exercises that require you to lift and handle weight from a bent over position, always keep an active, straight, and neutral lower back.

Doing so will eliminate excess stress on your intervertebral discs and eliminate your risk of herniating a disc.

Your Turn

Now that you understand the extreme importance of maintaining a strong, active, and neutral lower back when lifting weights, think about how you approach the exercises you use that require you to bend your back while handling weight.

When performing these types of exercises is your lower back rounding or are you keeping it straight and firm?

When performing these types of exercises are you actively concentrating on your lower back position?

When performing these types of exercises, if your lower back regularly rounds, do you know how to keep it straight, active, and in a neutral position?

Have you ever suffered a lower back injury or suffer from regular lower back pain? Is this pain exacerbated when performing exercises that require you to bend over while handling weights?

Principle Ten: When Doing Cardio Emphasize Interval Training Over Steady State Training

To build a lean, strong, healthy, body, unless you are already particularly lean and in excellent cardiovascular health, you are most likely going to need to include some form of cardiovascular training in your exercise program.

Now when it comes to cardiovascular exercise, whether you prefer to run, bike, swim, row, or use the elliptical (or do your cardio in some other way) there are two main types of cardio you can choose from: steady state training and interval training.

Steady State Training:

- Steady state training is when you choose a specific speed and hold that speed (with no more than minor speed variations) for the entirety of your workout.
- The classic example of steady state training is getting on a treadmill, selecting a speed, and then running at that speed uninterrupted for a specific period of time.

Interval Training:

- Interval training is when you select two or more speeds and alternate between them for specific periods of time.
- For instance running at 8 mph for 30 seconds and then walking at 3 mph for 90 seconds.

Why Emphasize Interval Training?

Here at Zach Moore Training & Nutrition we strongly advocate emphasizing interval training over steady state training for four primary reasons.

1. When performed for the same amount of time, interval training has been shown to be superior to steady state training for helping individuals lose weight and improve many markers of health.
2. Many studies have found interval training to be superior to steady state training for weight loss and health management even when performed for *less total time*.

3. There is mounting scientific and anecdotal evidence that interval training leads to significantly fewer overuse injuries, such as tendonitis and IT band syndrome, than steady state training.
4. There is mounting evidence that interval training has a more profound impact on the expression of healthy segments of genetic code than steady state cardio training.

Does Steady State Cardio Training Have a Place?

While interval training has been shown to be superior to steady state training for achieving the vast majority of health and fitness goals, there are two occasions where we actually advocate for steady state training over interval training.

First, if you are completely new to exercise, interval training, even very gentle interval training may be too physically demanding. In this case we advise using steady state training for about the first month of your training regime and then switching over to interval training once you have built a foundation of cardiovascular endurance.

Second, if you are using exercise as a tool to fight depression, steady state training has been shown to have a greater impact on improving mood and fighting the symptoms of depression than interval training.

How To Use Interval Training

There is a common misconception that interval training has to be particularly intense and is by nature too intense for the majority of individuals.

For instance when most individuals think of interval training they think of exercises like running sprints or biking at an all out pace followed by long periods of near rest.

While these are both forms of interval training (often known as HIIT training, or High Intensity Interval Training) interval training itself can be used for individuals of nearly all exercise levels (except, as we stated, for complete beginners.)

The key with using interval training is to set your higher intervals to push *your* capabilities.

For example, if the fastest you can run on a treadmill is 5.5 mph, that's absolutely fine. Just use a speed close to that as your high interval speed and then recover from there.

Or if a brisk walk at a slight incline significantly challenges you, again that is absolutely fine.

What is important is that for your higher intervals you choose an overall intensity that challenges you, that challenges your breathing, and challenges your stamina.

Setting Up Your Intervals

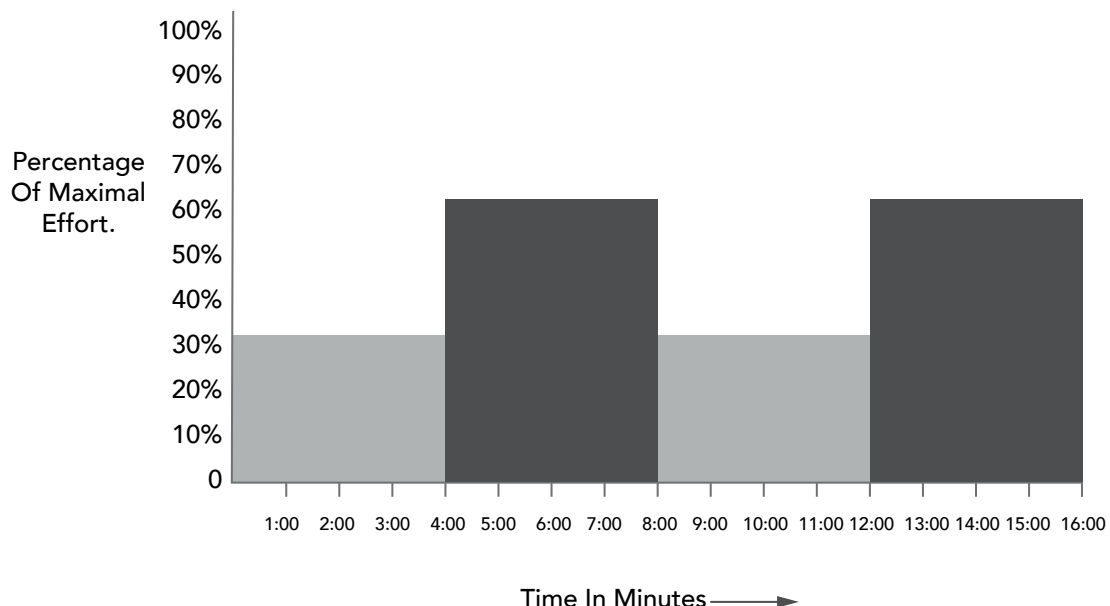
You can set up an interval training workout in literally limitless ways, but there are three basic and commonly used methods that we find work very well, each of which are appropriate for individuals of different fitness and experiences levels.

1. Slight variable intervals.
2. Moderate variable intervals.
3. High variable intervals. (This includes High Intensity Interval Training, known as HIIT, and all out intervals.)

Slight Variable Interval Training

During slight variable interval training, there is a small difference between your low and high intervals and the higher intervals are held for longer periods of time relative to moderate and high variable interval training.

Slight Variable Training

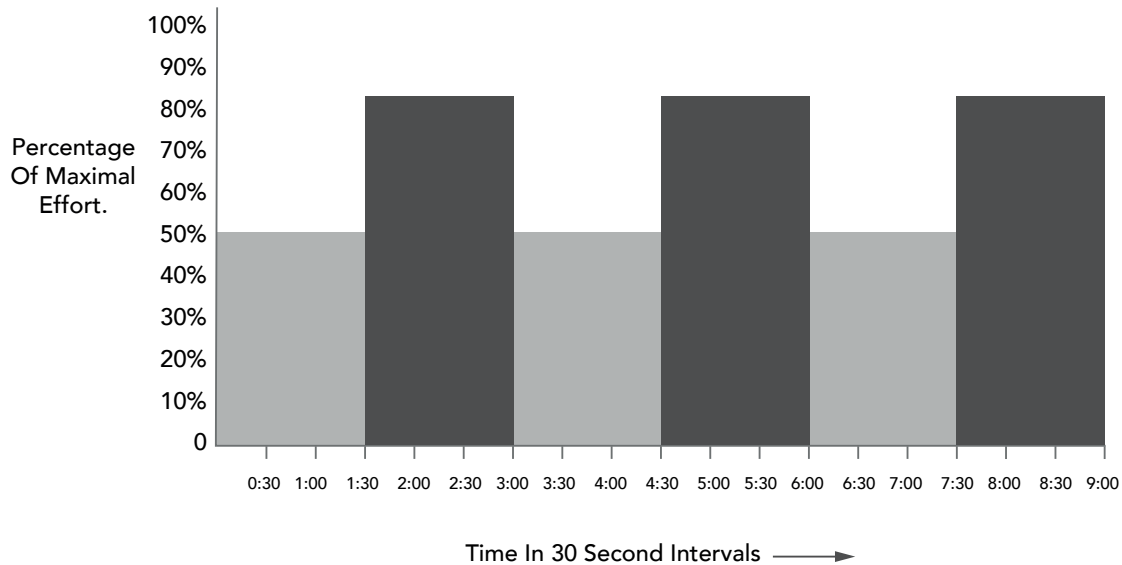


Slight variable interval training will give you a good blend between interval training and steady state training and is the first type of interval training to be used when you start to incorporate interval training into your exercise regime.

Moderate Variable Interval Training

During moderate variable interval training, the high intensity levels are performed at around 80% of your maximum speed and are usually held for around 1-2 minutes max.

Moderate Variable Training



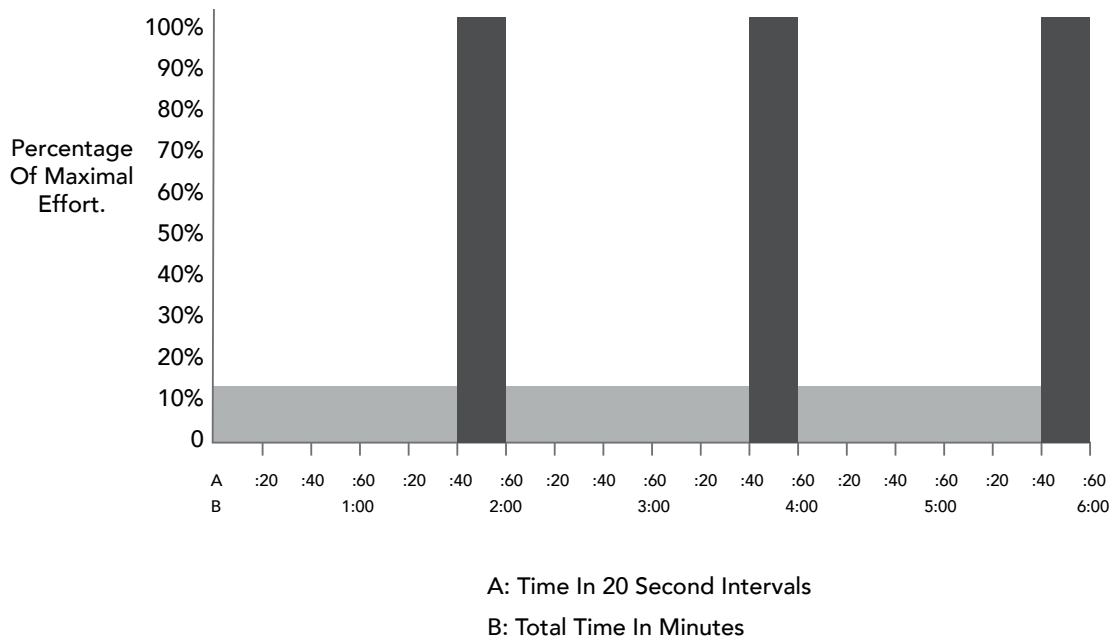
Moderate variable training intervals are great if you have already built a solid cardiovascular base, are comfortable with slight variable intervals, and are ready to start pushing your cardiovascular capabilities to the next level.

High Variable Interval Training

During high variable interval training, especially all out interval training, the high intensity levels are performed at 90-100% of your maximum effort and are usually held for around 10-40 seconds.

(Chart on next page.)

High Variable Interval Training



High variable interval training is the most advanced type of cardiovascular exercise you can perform and should only be used if you have experience with moderate variable interval training and are ready for an extremely intense exercise experience.

Emphasize Interval Training Over Steady State Training

For years steady state cardiovascular training was the go to method for improving cardiovascular health and improving endurance.

But the evidence is out: Interval training is superior for achieving nearly every type of health and fitness goal and produces fewer injuries than steady state training.

So when it's time to do your cardio, emphasize interval training over steady state training. You will achieve your goals in less time and stay safer along the way.

Your Turn

Now that you understand the value of interval training, think about how you approach cardiovascular exercise.

For your cardiovascular exercise, do you rely exclusively on steady state training or do you already incorporate interval training?

If you rely primarily (or exclusively) on steady state training for your cardiovascular conditioning, do you have injuries that are exacerbated by your steady state training? If so, which?

If you rely exclusively on steady state training, how do you think interval training could benefit you in terms of health and time management?

Principle Eleven: Make Heavy Use Of Supersets and Circuit Training

As a busy hard-working adult who has to balance work, family, and social obligations, before even thinking about exercise, we think it is fair to assume that time is your most precious and limited resource.

This means to build a lean, strong, healthy body, you're going to need to get the most out of every one of your workouts.

Maximize Your Time By Using Supersets and Circuits

Far and away one of the most effective ways to maximize the amount of exercise you can do in the shortest period of time is to use supersets and weight circuits.

What are supersets and weight circuits?

A superset is when you select two different exercises that work different parts of the body and alternate between the two. For example alternating between sets of squats and rows.

Weight circuits are exactly like supersets, only you choose three or more exercises to rotate between, instead of just two. For example rotating between sets of squats, rows, *and* push ups.

(We're not really sure why they are named differently, but these terms are used so commonly we felt it was important to address both.)

The Benefit of Supersets and Circuits

The advantage of using supersets and weight circuits are as follows.

When you perform any weighted exercise you need time to rest the muscles you just used before you can effectively use them again, and generally speaking this rest period is about one to two and half minutes long.

(This is a simplification as your rest period will depend on a number of factors, but one to two and a half minutes is a good reflection of the average rest period for typical individuals with typical health and fitness goals.)

Now, if you perform just one exercise at a time, this basically means you're going to stand around doing nothing for that entire rest period.

(Maybe you check Facebook, maybe you check out that cute guy or girl on the other side of the gym, but you're not exercising.)

But if you add in another exercise, or exercises, that work different muscle groups, you may only need to rest for 30 seconds, or even less (just to catch your breath and recover mentally) before you can move on to the next exercise.

(Even though, when you rotate between exercises you are exercising almost continuously, because you are working different muscle groups, you are still able to fully rest each muscle group before you need to use it again.)

All this means that by using supersets and circuits you can easily double, triple, or even quadruple the number of muscle groups you can work, and the total amount of exercise you can do, in the same amount of time as if you had done just one exercise alone.

Setting Up Your Supersets and Circuits

So how should you set up a superset or circuit?

Lets say your primary fitness goal is to build lean muscle and tone throughout your whole body.

You could set up a three-exercise circuit comprised of one lower body exercise, one upper body push exercise, and one upper body pull exercise using the following specific exercises ordered as follows with a one minute rest in between each exercise.

Exercise 1: Lower Body Exercise: *Back Loaded Barbell Squats*

Exercise 2: Upper body Push Exercise: *Bench Press*

Exercise 3: Upper body Pull Exercise: *One Arm Dumbbell Rows*

Or lets say your primary fitness goals are to lose body fat and tone and strengthen your legs and core.

You could set up a six-exercise circuit comprised of two lower body exercises, two core exercises, and two cardio exercises using the following specific exercises ordered as follows with a thirty second rest in between each exercise.

Exercise 1: Lower body Exercise: *Goblet Squats*

Exercise 2: Core Exercise: *Russian Twists*

Exercise 3: Cardio Exercise: *Mountain Climbers*

Exercise 4: Lower Body Exercise: *Dumbbell Loaded Reverse Lunges*

Exercise 5: Core Exercise: *Single Leg Plank*

Exercise 6: Cardio Exercise: *Burpees*

The potential combinations are limitless. Especially when you consider that you can, and often should, use multiple circuits per workout session.

Use Supersets and Circuits

As we said, as a busy, hard working adult you have limited time to dedicate to exercise and you need to get the absolute most out of every minute you spend in the gym.

So make sure you use as many supersets and circuits as possible.

Doing so will enable you to maximize the amount of exercise you can do in your limited time and help you achieve your goals as quickly and efficiently as possible.

Your Turn

Now that you understand the value of using supersets and circuits, think about how you set up your workouts.

Do you normally do one exercise at a time or are you already using supersets and circuits?

If you normally do one exercise at a time, how much more exercise do you think you could do and / or how much time do you think you could save by incorporating supersets and circuit?

Given your goals, what are a few superset and / or circuit combinations you could put together to help you maximize your the time in the gym?

Principle Twelve: To Build Strength And Lean Muscle You Must Follow The Principle of Progressive Overload

When it comes to building an effective exercise program, you actually have a fair amount of flexibility regarding the specific exercises you decide to include.

For instance, if one of your primary goals is to strengthen and tone your lower body you can use traditional squats, split squats, reverse lunges, or step ups and accomplish the same goal.

But, whichever exercises you include in your program, ***to build strength, build lean muscle, and develop your body you must follow the principle of progressive overload.***

The Principle of Progressive Overload

The principle of progressive overload is the foundational rule governing strength and muscular development. It states that ***in order for a muscle to grow, strength to be gained, and performance to increase, your muscles must be forced to adapt to a level of stress, tension, and intensity that is above and beyond what your muscles have previously experienced.***

To translate that into English, what the principle of progressive overload is saying is that to build strength and lean muscle you must continuously increase the difficulty of your exercises until you have achieved the look and physical capabilities you desire.

How to Follow The Principle of Progressive Overload

To increase the difficulty of a given exercise you basically have one of two options.

1. Add more weight to that exercise.
2. Do more repetitions of that exercise.

Either way you are forcing your muscles to handle more stress than they have before in turn forcing them to adapt, grow, and get stronger.

To illustrate this point, again lets say one of your primary fitness goals is to build strength and tone throughout your lower body.

If you squat on a regular basis and consistently do three sets of ten repetitions while holding a thirty pound weight, if you want to see any new development in your legs you must either increase the weight (to lets say thirty-five pounds) or increase the number of repetitions (to lets say twelve repetitions per set.)

Next, once your legs have adapted to the new weight or repetition scheme if they are still not as strong or toned as you would like you'll need to either add more weight or repetitions again.

Finally, you'll need to continue this process until your legs (or whatever muscle group you are trying to develop) reach the aesthetic shape or strength level you desire.

So for this example while you may have started by doing three sets of ten repetitions of squats while holding a thirty-pound weight, you may need to slowly progress to three sets of fifteen repetitions holding a seventy-pound weight before you achieve your goals. (Or more likely, you will need to progress much further than that.)

The Impact of Not Following The Principle of Progressive Overload

What is the impact of failing to adhere to the principle of progressive overload?

1. You will not build strength.
2. You will not build lean muscle.
3. Your physique will not develop.

You will maintain the progress you have made up to that point, (which is very important) but ***you won't make any new progress.***

Why You Might Not Be Following The Principle of Progressive Overload

Here at Zach Moore Training & Nutrition we have found that failing to follow the principle of progressive overload is one of the most common reasons people don't achieve their fitness goals.

- For some people it is because they go to the gym and do the same workouts with the same weights and same number of repetitions basically every workout.
- For some people it is because they rely exclusively on group fitness classes that use the same bars or dumbbells for every class. (Even worse these bars often never even exceed ten pounds. Ten pounds is lighter than most two-month-old babies!)

- Many women don't follow the principle of progressive overload because they are afraid of lifting heavier weights because of a fear of getting too big and bulky. (Ladies we cannot stress enough how unlikely it is this will occur and how important it is you incorporate focused weight training into your fitness regime.)

You Must Follow The Principle of Progressive Overload

Whichever exercises you decide to include in your program, to build an effective exercise program and achieve your fitness goals you must follow the principle of progressive overload.

If you don't, even if you are logging long hours in the gym driving yourself at full steam, ***you will not progress and your body will not develop.***

To build strength, lean muscle, and develop your physique you must gradually add more weight or add more repetitions to the exercises you are using.

Doing so is the only way you will achieve your goals and build the body you desire.

Your Turn

Now that you understand the critical importance of progressive overload, think about your exercise routines and try to figure out if you have been following the principle of progressive overload.

Do you regularly do the same workouts using the same weights and number of repetitions?

Do you rely heavily or exclusively on group fitness classes? If so, do you think the classes you are attending are helping you follow the principle of progressive overload?

Over the weeks, months, or years you have been exercising, have you progressively added weight or repetitions to the exercises you have been using?

Over the weeks, months, or years you have exercised, have you seen your body develop the way you would have liked? If not, do you think failing to adhere to the principle of progressive overload may have been a reason?

Principle Thirteen: You Must Exercise The Muscles You Want To Strengthen, Develop, Or Tone every 48-96 Hours.

At its core, the foundation of building an effective exercise program comes down to three things.

1. Choosing the right exercises.
2. Choosing the right intensity levels. (As in choosing the right combination of weights and repetitions for resistance exercises and the right speeds and distances for cardiovascular exercises.)
3. Correctly scheduling your workouts.

Now the exercises and intensity levels you choose will need to be based on your goals, your anatomy, any injuries you may be dealing with, your current fitness level. (See Principle Two)

But whatever exercises and intensities you use, to build strength, lean muscle, and tone your body, in addition to following the principle of progressive overload (which we just covered in Principle 12) ***you must also exercise the muscles you want to develop once every 48-96 hours.***

Failing to do so will seriously undermine your ability to build strength, muscle tone and can lead directly to an injury.

The Muscular Reaction Process

To understand why you need to exercise the muscles you aim to develop every 48-96 hours, you need to understand how your muscles react and respond to exercise, which is summarized by the *muscular adaptation process*. (We'll keep our explanation quick and simple, we promise.)

The first thing that happens when you exercise is that you actually cause physical damage to your muscles. This damage is completely normal and is a key part of how your muscles grow, but as a result for about 24-48 hours after a workout the muscles you used will be weaker and less capable as they recover.

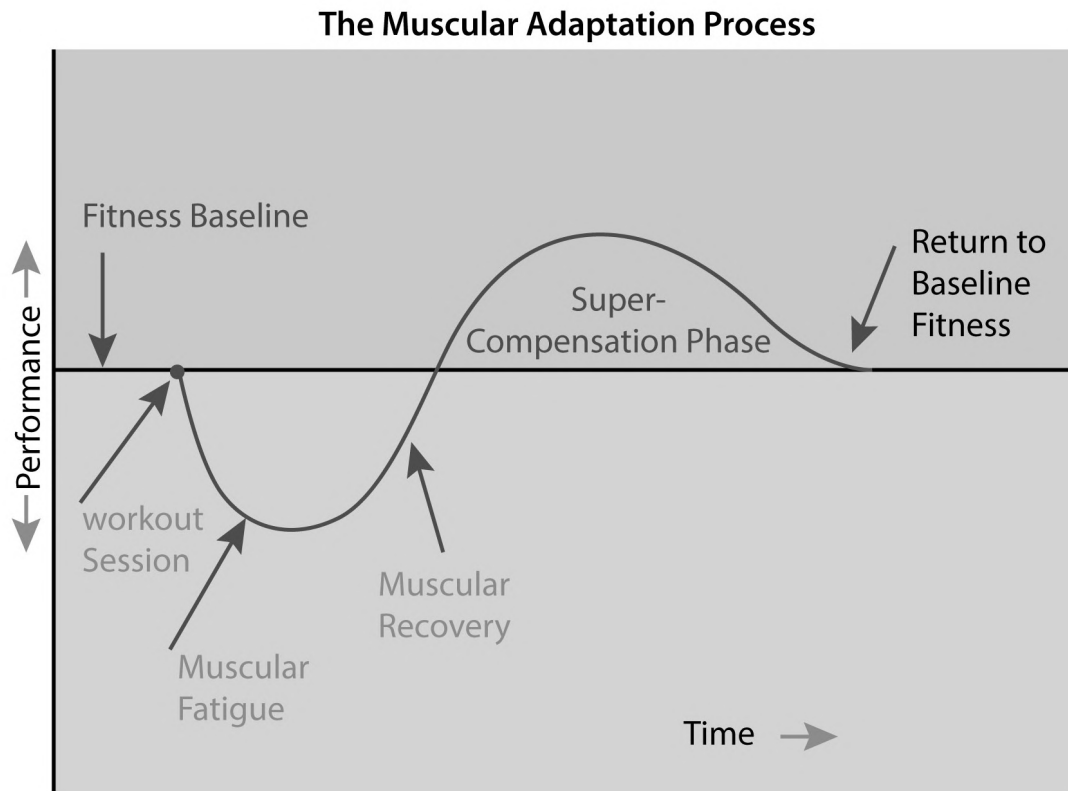
Sometime around 36-60 hours after your last workout though, your muscles will fully recover and enter a period of time where their capabilities are *greater* than they were before your last workout.

(It is impossible to pinpoint exactly how long it will take your muscles to recover from a given workout, but a very good rule of thumb is the harder and heavier you worked out, the more damage you did to your muscles and the longer it will take for them to recover.)

This period is called the **muscular super compensation phase** and during this period of time your muscles are stronger, faster, able to handle heavier weights, and able to handle more strenuous workouts than they were before your last workout.

However, after about another 48 hours the muscular super compensation phase ends and your muscles lose their newfound strength and capabilities and return to where they were before your last workout.

(Yes, we know this is confusing. So here is a chart outlining the muscular adaptation process in visual terms.)



(Graph Based Upon Multiple Graphs Available In Common Training Literature.)

Applying The Muscular adaptation process Concept To Scheduling Your Workouts.

So how does the muscular adaptation process apply to actually scheduling your workouts?

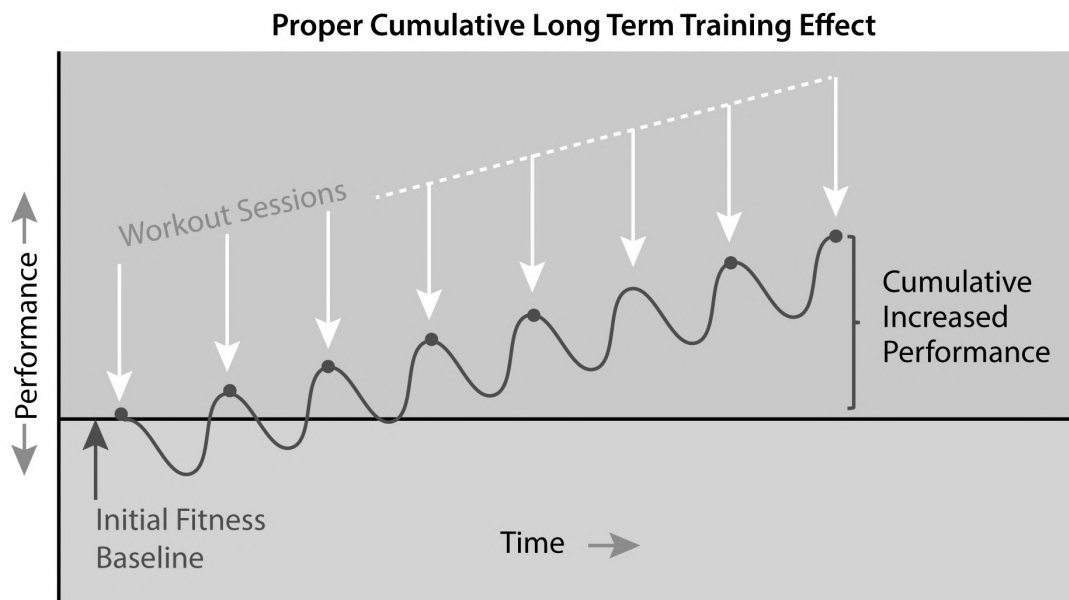
To build strength and muscular definition you need to schedule your workouts so that workouts that work the same muscles falls during the super compensation phase from your last workout.

Given the super compensation phase occurs from about 48-96 hours after your last workout, ***you need to schedule workouts that work the same muscles about 48-96 hours apart. Meaning once every two to four days.***

Scheduling your workouts this way will enable you to build off the gains you made from your last workout and start the whole muscular reaction process over again, but this time from a higher baseline.

Over time, it is the process of starting many consecutive workouts from gradually higher baselines that enable you to actually make progress, AKA build strength, add lean muscle, and tone your body.

(Once again, let's help clarify this confusing process with some helpful visuals.)



(Graph Based Upon Multiple Graphs Available In Common Training Literature.)

Exercising too soon after your last workout

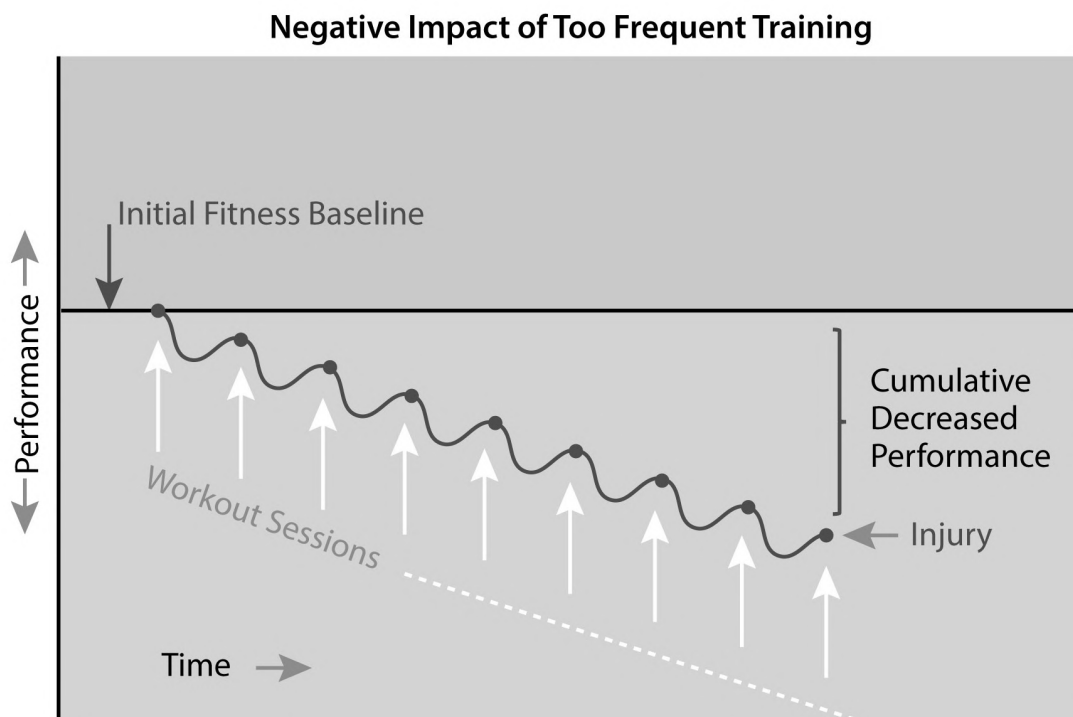
When you exercise too soon after your last workout (as in before 36 hours) you don't give your muscles enough time to adequately recover.

Now continuously exercising your muscles without letting them adequately recover leads to three serious consequences.

1. You seriously undermine the development of your strength and muscle tone.
2. You actually make your muscles smaller, weaker, and less toned.
3. You eventually suffer an injury.

These occur because when you continuously exercise your muscles without adequate recovery you end up starting each workout from a continuously lower baseline.

Over time, you essentially drive your muscles, your body, and your abilities into the ground.



(Graph Based Upon Multiple Graphs Available In Common Training Literature.)

Waiting too long to exercise after your last workout

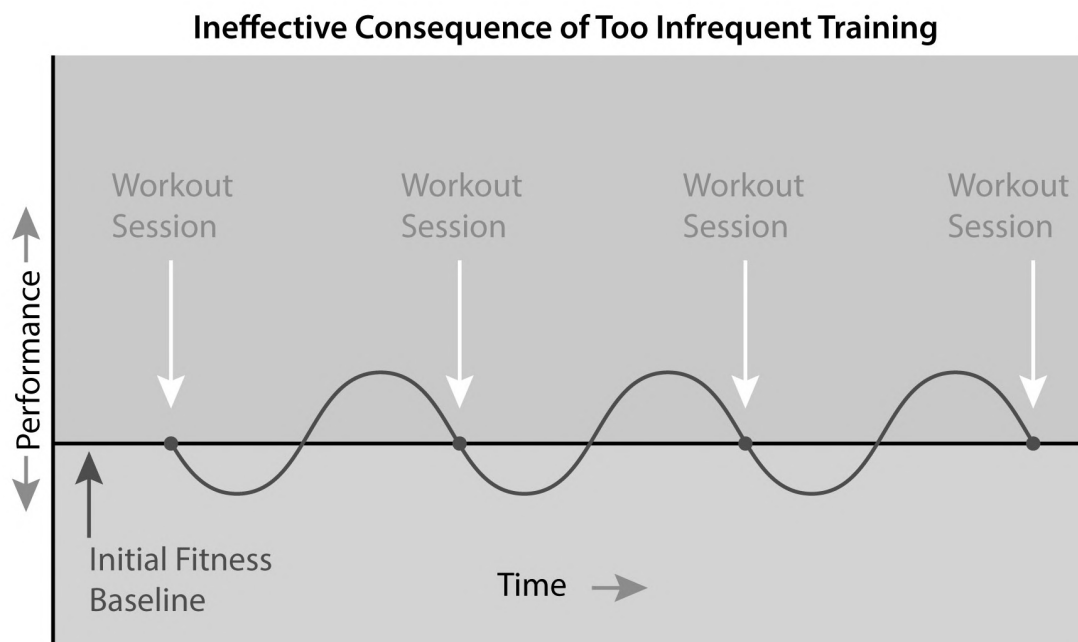
Waiting too long to exercise again after your last workout (as in longer than 96 hours) isn't nearly as dangerous as continuously exercising too soon after your last workout.

In this case your muscles have had time to adequately recover and therefore you won't degrade them through over use and there is no increased risk of injury.

However, ***if you regularly wait too long to exercise again after your last workout you will completely undermine your ability to build strength, tone, and definition.***

Remember, after about 96 hours the muscular super compensation phase ends and *if you have not exercised your muscles again within that time frame they lose the strength and size gains they made from your last workout.*

If you regularly wait too long to exercise again you will end up starting each workout from the exact same baseline. If this occurs you simply will not progress. You will not build strength, you will not build muscle, and you will not tone your body.



(Graph Based Upon Multiple Graphs Available In Common Training Literature.)

You Must Work the Muscles You Want to Develop Every 48-96 Hours.

Besides failing to adhere to the Principle of Progressive Overload, failing to exercise often enough is the primary reason so many individuals fail to build strength, build lean muscle, and build the body they desire.

We understand you may crave variety in your workouts and we understand that spacing your workouts out in such a way that requires you to exercise on a Friday or a Saturday may not be ideal.

We hear you and we completely understand... but your body doesn't.

Your body only cares if you are following the primary rules that govern muscular development.

So make sure you are spacing your workouts out accordingly and exercise the muscles you want to develop every 48-96 hours.

Doing so will enable you to build the muscle, strength, and tone you desire without over working your body and will ensure you are starting each workout from a new baseline of physical capabilities.

Your Turn

Now that you understand why you need to exercise the muscles you want to develop every 48-96 hours, think about the way you regularly schedule your workouts.

Do you regularly exercise the muscles you want to strengthen, develop, and tone every 48-96 hours?

If not, are you regularly exercising too soon or waiting too long? How do you think this is impacting your body and your results?

If you are not exercising the muscles you want to strengthen, develop, and tone every 48-96 hours, how can you change your workout schedule to ensure that you are?

Principle Fourteen: Myofascial Release Your Most Problematic Muscles At Least Twice A Week.

Regular exercise is one of the single best things you can do for your body. Regular exercise builds strength, builds lean muscle, helps you lose weight, and dramatically improves your health.

But regular exercise does have one unavoidable drawback: *regular exercise causes muscle tightness and sharp painful bundles of tissue called knots.*

If left unaddressed, chronically tight and knotted up muscles lead to two serious consequences.

1. They significantly increase your risk of injury.
2. They cause chronic discomfort and pain.

As we have talked about many times throughout this guidebook, to build a safe and effective exercise program and a lean, strong, and healthy body, you need to address your pain and make avoiding injury your top exercise priority.

And this is why it is so important that you myofascial release on a regular basis.

What is Myofascial Release?

Myofascial release is the process of applying physical pressure to a muscle with the goal of breaking up the knotted segments of that muscle.

The two most common examples of myofascial release are massage and foam rolling. (Foam rolling is when you lie on a long foam cylinder, called a foam roller, and roll your muscles up and down and side to side to break up your knots.)

How Knots Form

Keeping things very short and sweet, each of your muscles is made up of millions of small individual segments that link together when your muscles contract, and detach from each other when your muscles relax.

Unfortunately your muscles don't work perfectly and over time, through countless contractions, some of these segments won't properly detach when your muscles relax.

When enough of these undetached segments occur in the same area and jumble together, they form a knot.

Why Knots Matter

Knots themselves matter for two primary reasons.

1. *Knots cause chronic tightness throughout the muscles they affect.* In turn, this chronic tightness keeps your muscles from elongating and moving properly and causes unsafe compression throughout your joints leading to joint degradation, pain, and increased risk of injury.
2. *Knots, are in and of themselves, very sensitive, uncomfortable, and painful.*

How Myofascial Release Works And How To Do It

Myofascial release works in a very simple way: By applying physical pressure to a knotted segment of muscle you are able to physically break apart the undetached portions and allow your muscle to return to its proper length.

To myofascial release, simply take a firm object (for instance, a foam roller, softball, or lacrosse ball) and place that object between the muscle you want to release and a hard surface. (The floor or a wall.)

Next, slowly press your weight press down upon the object to create physical pressure on your muscle. Then roll your muscle along your object until you find a particularly sensitive area.

Once you have, focus directly on that area and roll over it very carefully, using small motions and making sure to roll up and down and side to side.

Now, this process is not going to be comfortable. In fact it is going to be particularly uncomfortable and potentially moderately painful.

We know the idea of deliberately causing yourself discomfort and pain may seem unnatural and counterproductive, but moderate levels of discomfort and pain when myofascial releasing are completely normal and safe.

The pain you feel when you myofascial release is a byproduct of applying pressure to such tight, knotted and unhealthy (and thus sensitive) bundles of muscle.

In fact, a good rule of thumb when myofascial releasing is that if you are not feeling at least a moderate level of discomfort, you are either not targeting the right area or you are not applying enough pressure to that area.

All this said, you do not want the pain to become too intense. So, another good rule of thumb when myofascial releasing is for the discomfort level not to pass beyond a 7 or 8 on a scale of 1-10. You also must be able to breath deeply and calmly throughout the entire rolling process.

If at anytime the pain passes an 8 out of 10, or the pain becomes too intense for you to breath deeply and calmly, simply take some pressure off the object and pull the intensity back a bit.

Myofascial Release Versus Stretching.

But why is myofascial release so important and can't you just stretch your knots out?

While stretching is an important tool to include in your toolbox, stretching has one major drawback when compared to myofascial release: Stretching does not release knots.

Yes, stretching will elongate your muscles and provide temporary relief from the discomfort of tightness, but it will do so by stretching the healthy segments of your muscles, leaving your knots intact.

Myofascial release is the only way to physically break apart your undetached segments of knotted muscle and enable your muscles to feel and function their best.

How Often Should You Myofascial Release?

The more often you myofascial release the better. In fact, given the way muscles benefit from myofascial release, you can myofascial release as often as every day. (High level athletes often myofascial release multiple times a day.)

However, we know you are not a professional athlete and have realistic time limitations. Therefore we recommend you try to myofascial release your most problematic areas at least twice a week.

And how much time should each releasing session last?

Again, the more time you can dedicate to releasing the better, but you can *significantly* reduce your tightness, pain and injury risk by releasing your most problematic areas for just 2-3 minutes per area per session.

Myofascial Release on a Regular Basis

Regular exercise is the key to building strength, building lean muscle, and toning your body. But regular exercise is not without consequence and will inevitably lead to muscle tightness and knot development.

If left unaddressed your tight muscles and knots will reduce your physical abilities, increase your risk of injury, and cause discomfort and pain.

So be sure to myofascial release on a regular basis.

Focus on the most sensitive areas of the muscles you use the most and foam roll or massage them for two to three minutes each twice a week.

This small extra investment of time will *significantly* increase your performance, reduce your risk of injury, and reduce your chronic tightness, discomfort, and pain.

Your Turn

Now that you understand the value and importance of myofascial release, think about the tightest and most problematic parts of your body and the methods you use to loosen up, reduce chronic pain, and prevent future injuries.

Do you have specific muscles or regions of your body that are chronically tight or in pain? If so, which?

How have you tried to alleviate these parts of your body? Have you relied primarily on stretching? Have you tried foam rolling or massage?

How have your problematic areas responded to the methods you have used to alleviate them?

Do you feel comfortable with foam rolling and self massage or do you feel like you need further instruction to apply them correctly?

Principle Fifteen: Record Your Workouts And Track Your Progress

The final piece to building a lean and strong body effectively and efficiently is to accurately record your workouts.

Now we know the idea of writing down each exercise you do, the sets, the reps, and the weights, or the speed, the distance, and the time, can seem like a pain.

We hear you, but...

Why You Have to Accurately Record Your Workouts

Accurately recording your workouts is extremely important because as we established in Principle Twelve, to progress toward your goals you have to follow the principle of progressive overload.

And the only way to be sure you are following the principle of progressive overload is to compare data from one workout to the last, which is only possible if you have accurate data to compare.

How To Record Your Workouts

In terms of how to actually record your workouts, you have a few options.

First, there are now hundreds of apps you can download that will enable you to quickly and easily record your workouts, the exercises, and the intensities you've used right into your phone.

Second, you can create a simple spreadsheet with Google Sheets (or other spreadsheet program that is dual accessible on both your phone and computer) and record your workouts there.

Third, you can use our template. Email us and we will gladly send you the templates we use to record our clients' workouts.

Accurately Record Your Workouts.

As we said, we know the idea of writing down every exercise you do and the number of sets, repetitions, and the weights you used may seem like a pain.

Again, we hear you.

But the reality is if you are serious about achieving your goals you need to make sure you following the Principle of Progressive Overload and the only way to be sure you are is to have accurate data to analyze.

So whether you download a fitness app, create your own spreadsheet, or use our templates, make sure you take the time to record your workouts.

Doing so is the only way to ensure you have the data you need to ensure you are progressing forward.

Your Turn

Now that you understand the importance of recording your workouts, think about how you record your workouts.

Do you regularly record your workouts?

If you do not regularly record your workouts, how do you choose the weights and number of repetitions you use for your resistance workouts and the speed and distance you use for your cardiovascular workouts? Do you think your method is safe and optimally effective?

What would be the easiest way for you to record your workouts?

The Next Step: Your Complimentary Training Sessions

What We Believe

At Zach Moore Training & Nutrition we believe one of the best investments you can make is to invest in your long-term health and happiness.

We believe one of the greatest decisions you can make is to decide to build a body that is strong and lean, a body that moves freely and without pain, and a body that lets you feel truly confident in the way you look.

And we believe that when you are ready to invest in yourself you deserve a great coach. A coach who understands your goals, a coach who understands your motivations, a coach who knows your body inside and out, and a coach who is as dedicated to your success as you are.

Your Complimentary Training Sessions

From our years of coaching experience, we know how difficult it can be to incorporate regular exercise and how many questions you may have. That is why it is our pleasure to offer you two complimentary sessions with our team.

Complimentary Phone Consultation

Your first complimentary session will be an initial phone consultation. This session will give you the opportunity to speak with one of our team members to discuss in depth your goals, motivations, current and past exercise routines, and any injuries or pain that may be impacting you.

Complimentary Training Session

Your second complimentary session will be a full one on one personal training session. This session will give you the opportunity to work one on one with one of our team members to learn the specific exercises you need to include in your program, the proper form for these exercises, and how to set up your workouts to ensure your long-term results and safety.

What We Want For You

At Zach Moore Training & Nutrition our mission is to teach, coach, and support and what we want is for you to have access to the best health and fitness information available. We want you to have the skills to apply that information. And we want you

to build for yourself the leanest, strongest, healthiest body possible because we want to see you as healthy and happy as you can be.

Take the information provided in this guidebook and apply it, take advantage of your complimentary sessions and meet with us, and Invest in health, your fitness, and your body. We promise, doing so will be one of the greatest decisions of your life and will lay the foundation of your long-term health and happiness.

Our very best,

Your Exercise Coaching Team,

Zach Moore Training & Nutrition.

Testimonials

Since founding Zach Moore Training & Nutrition, our team has had the pleasure of working with many fantastic clients and we are very proud of all our clients who have worked so hard to achieve their goals. In the following pages you will find what just a few of our clients have to say about our time training together and the impact it made on their lives.

J.B.

Partner Financial Services Firm

“Since I started working with Zach and his team I have lost over fifteen pounds of fat, lost over three inches from my stomach, two inches from my waist, and lost over an inch from my legs. “

I started working with Zach in late 2016 when I realized that between my intense financial job, raising two young children, and my extended time away from weight training, I was not going to be able to push myself hard enough (or safely enough) to get back into the type of shape I wanted to be in.

Coming from an intense sports background I needed someone who could push me hard, but who also understood that as a full time professional and mother I needed my exercise and dietary routines to around my life.

(As much as I would have loved to go back to training seven days a week and eating perfect all the time, my priorities had changed “just” a little bit since my younger twenties.)

After interviewing Zach, doing an initial consultation, and then an initial training session I knew Zach was going to be the right fit.

Since I started working with Zach I have lost over fifteen pounds of fat, lost over three inches from my stomach, two inches from my waist, and lost over an inch from my legs.

I have also gained almost five pounds of muscle which, when combined with my fat loss, has really brought out the tone in my legs and my glutes. (Exactly what I was looking for!)

As a coach, Zach is tough, but fair and trust worthy. He pushes me, but always emphasizes proper form over lifting more weight or doing more reps. By the end of our workouts I’m totally spent, but I never feel like he has pushed me too far. And on the odd day that I just don’t have “it” Zach backs off just enough so that I can get through.

One thing that really separates Zach from other trainers I have met is that as a nutritionist, Zach is always on me about my eating. He is always following up on what I’ve eaten, how much I’ve eaten, and he is always guiding me and pushing me to make better decisions. He has also introduced me to an excellent home meal delivery service Kettlebell kitchen, which as really helped me and my family get more real, whole foods into our diet.

Away from our sessions Zach is very responsive to my emails and texts and he tries the best he can to be flexible with our sessions. And when Zach's schedule gets too full to accommodate any last minute scheduling changes (between work and my children, scheduling can get tough sometimes) Zach has a great trainer, Joe Ferraro, who has helped train me. This has been great as Joe brings an extra set of eyes to my workouts and having a second trainer to work with has made maintaining a flexible training schedule much easier.

Overall working with Zach has been exactly what I was looking for when I decided it was time to start working with a trainer.

I have gotten the results I wanted and had an excellent overall experience along the way.

Zach and Joe are also both very smart and fun, which to me is really important because if I'm going to spend an hour with someone, I better enjoy their company!

If you are looking for a trainer to help you reach your goals, who will push you in and out of the gym, and who will be as invested in your success as you are, Zach (and Joe) is absolutely one of the best you will find.

Harsh H.

Financial Analyst Credit Suisse

***“My whole life I’ve wanted to be in great shape. I worked with Zach for five months and got into the best shape I’ve ever been in.*”**

I found Zach in February 2016 and started working with him twice a week. In early April 2016 though I realized I wanted to return home to India, planned my move for early June, quit my job, and started working out with Zach five days a week.

Between April 13, the day I quit my job, and June 3rd, our last session before I returned to India, I lost 4.3 pounds of fat, gained 9.3 pounds of muscle, gained 3 inches in my shoulders, 2.75 inches in my chest, 1.5 inches in my arms, 2.4 inches in my legs, and lost 3.25 inches in my stomach. My bench press went up by over 40 pounds, my squat increased by over 50 pounds, and I went from not being able to do more than 2 pull ups to being able to do multiple sets of 8. By June 3rd my body looked totally different. Much bigger where I wanted to be bigger, and much smaller where I wanted to be smaller.

When I first started working with Zach I had terrible form on my major lifts and when I would try to press dumbbells they would shake everywhere. One thing I think was great about working with Zach was that he took the time to teach me the correct form for all the lifts we used in our program. And I’m not exaggerating when I say Zach was on me about my form on every single rep every time we worked out. The workouts themselves were hard, but smart. Whenever I asked Zach “Why are we doing...” he always had a reason. And whenever I asked Zach a question about something he was not 100% sure about, he would say so, then go home and research it. He never just made up an answer.

Finally Zach helped me a lot with my diet. In the beginning Zach made me take pictures of everything I ate and send them to him. Then he would send me an email with feedback. Taking the pictures and getting real feedback really helped me figure out what I should be eating and how much of it I needed to eat.

If you are looking for a personal trainer I can’t recommend Zach highly enough. He is a true professional. He is smart, very knowledgeable, and he was really dedicated to my program and my results. And Zach is a lot of fun to work with and that makes a big difference when you’re with someone for an hour or more at a time.”

Jaclyn S.

Investor Relations Third Point

“Zach Moore Training is personal training the way it needs to be. Extremely effective, compassionate, and safe. Personal Training at its absolute best.”

I first started training with Zach about one year ago after experiencing frustration with many of the fitness professionals I had previously encountered. Many don't invest in creating programs that provide incremental improvement or they encourage dangerous practices for people new to the personal training world. Zach and his team's practices need to be the gold standard for the industry.

Zach has a unique and unparalleled skillset created through a confluence of a deep wealth of knowledge, a true passion for safe fitness, and an unwavering dedication toward fully understanding his clients.

Zach's educational credentials speak for themselves. He also practices a pursuit of lifelong learning in order to keep fully informed of recent developments within his domain.

He uses this impressive knowledge as a base to create uniquely smart, informed, and holistic programs for his clients that incorporate cardio, interval training, strength training, and nutrition.

Zach tailors his workouts to best suit your goals and your skillset. He will work with you to safely reach the next level of fitness and conditioning. He always emphasizes correct form so you will never feel uncomfortable or unsafe. Zach also knows when it is appropriate to challenge you without being overbearing so that your training never feels stale or complacent.

Additionally, Zach is highly empathetic. He uses this skill to ascertain what is important to you as his client, how and why fitness helps you to achieve your personal goals, and how to best influence you to make continuous progress. He truly takes the time to understand what motivates you and works tirelessly to encourage you in that customized way.

The results speak for themselves. One year in, I am the leanest and strongest I have ever been. Routine training with Zach provides incentive for me to exercise on my own so that I can reach the next level during my next session with him. His encouragement has motivated me to make real change to both my daily routine and my dietary habits.

Zach is a true professional: he is never late to a session and is quick to respond to emails sent off session. On a personal note, Zach is extremely intelligent, a great conversationalist, and a truly engaging guy. The hour you spend with him will fly by and you will learn something from him every time. He is personable, fun, and has great taste in music. I cannot recommend Zach and the Zach Moore Training team enough."

Rifat C.

Vice President J.P. Morgan

"I worked with Zach for almost two years and in that time lost over 40 pounds, (20% of my original body weight) put on 10 pounds of muscle, lowered my cholesterol, and lowered my resting heart rate."

When I met Zach I was about 8 years out of college, out of shape, working long hours and eating badly. I also had a knee injury that I picked up towards the end of college. I was trying to get in shape and was generally failing. I would work out for a few weeks, lose 5-7 pounds, stop and gain it right back. I am sure this story is a familiar one for many people. Eventually, realizing that I was not getting results on my own, I reached out for help and met Zach.

From day one, Zach was very effective working around my knee injury. He has an encyclopedic (and up to date) knowledge of different kinds of exercise routines that kept the sessions fresh and interesting – something I wasn't having much success with on my own. He helped me find the fitness and nutrition program that was right for my lifestyle and fitness goals – tweaking it from time to time to keep me on the right track. Via our training sessions and fitness related discussions – I eventually re-learned how to be healthy, how to eat better (no dieting) and how to maintain a good fitness level while still working the same long hours.

Lastly, Zach also has a very positive and easygoing personality, which makes him a great person in general to train with. I recommend him without any reservation."

Richard M.

Aurthor of the International Bestseller and Dreamworks Movie Production *The Hundred Foot Journey*

“It sounds like I am exaggerating, but Zach literally changed my life.”

It started in late 2013 when I was on a business trip in Palm Springs, and had a sinus infection and was loaded up on antibiotics, plus all the other back and leg pains that wracked the body of this sedentary 53 year-old workaholic writer. My wife, tired of my sniffing and moaning, told me when we got home, it was time for me to really invest in my health.

After doing some research into Manhattan’s many personal trainers and personal training gyms, I came upon Zach’s webpage, reached out to him, and as they say, the rest is history. He not only came to build me up physically in the gym of my building, but as he is also a nutritionist, he had me taking iPhone snapshots of what I ate – making me conscious of the excessive portions I was eating. I dropped the unnecessary carbs from my diet and reduced my overall portion sizes, but other than that, I still had my vino and (modest sized) gourmet meals.

In a month and a half, I dropped 21 pounds, coming down to 169 pounds. It was, between the twice-weekly work out sessions with Zach and the food monitoring, all relatively easy. Instead of hobbling down Park Avenue as I walked to work, I found myself strutting my stuff like I was Anthony in Saturday Night Fever. Friends started asking me – “What are you doing?”

Here it is today, and I am fitter than I was when I was in my early 30s. I feel decades younger and my chronic aches and pains have disappeared. I’ve kept the weight off and am still growing stronger as Zach keeps gently pushing me to the next level. I still see Zach every week and I cannot recommend him enough. He has deep and excellent technical knowledge and a truly wonderful bedside manner that is devoid of judgment and never makes this old geezer feel like a doof.

An exceptional trainer, coach, and person. Truly. Zach has built up my raw strength and stamina and greatly increased my flexibility, undermining that stiffness and rigidity that comes when you enter your 50s and start to age quicker.”

Selena G.

Resident Physician Mt. Sinai St. Lukes Hospital

“Over the course of 11 months training with Zach I lost 35 pounds, gaining muscle, strength, and (whether it’s cheesy or not, it’s completely true) confidence in myself and my abilities.”

I was lucky enough to find Zach and his team through a colleague who knew I was looking to make a change in my life. I had always been somewhat overweight (5’4, 160lbs) and in recent years had fluctuated to more than slightly overweight (175lbs).

I had never been an active person, never involved in sports, and had barely ever gone to the gym consistently. But I came to a point in my life where I wanted to change all that and I knew that if I had someone to help me, someone to push me, support me, and teach me, that maybe I could finally lose weight and have more stamina. So after failed gym memberships, trying all sorts of “diets,” and all of the other things that weren’t working, I found Zach.

From our first session together, I felt so motivated and encouraged. Zach never made me feel overwhelmed or pressured; he made me feel empowered, teaching me things I never thought I was capable of doing. I proceeded to see Zach 3-4 times a month (though if I could have afforded it, I would have seen him 2-3 times a week) and in that time he taught me multiple different exercises and routines, always ensuring my safety with each new technique.

Zach also helped me tailor my diet to be more healthy, but at the same time filling and realistic. I faltered a few times here and there with my confidence and with sticking to the new diet, but overall, I felt better than I ever had before.

If you are ready, if you are motivated, and if you want to change your life for the better, I would absolutely recommend Zach to be your personal trainer. He was instrumental in helping me change my life.”

Andrew B.

Venture Capitalist

"I have worked with various trainers over the past ten years. Zach is by far the best of the bunch."

I have had the good fortune to work with Zach over the past five and a half years. When I began working with Zach, I was 38 years old, weighed 200 lbs and had a body fat percentage of 22%, Now I weigh 215lbs and have dropped my body fat percentage to 16%. So I have lost 10lbs of fat and gained 25 lbs of muscle."

Zach is an amazing trainer due to his knowledge of physiology, weight training, nutrition and his ability to listen extremely well so he can tell you better ways to train in a language that you will understand.

Zach wants you to reach your fitness goals, but equally as important, he wants you to get there while avoiding injuries. He knows when to push you but also when to lighten things up with humor. He's never pushed to sign up for more weekly sessions with him. We talk about my workouts outside of my sessions with him and he varies the sessions and suggestions so there is no monotony. I can't recommend Zach strongly enough.

Contact Us

For more information, to schedule your complimentary training sessions, or if you have any other questions, you can reach us via email, phone, or through our website. We look forward to hearing from you!

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