

## **Exercise Prescription**

During this section, I will discuss some very basic ideas as to how to create your own resistance and cardio vascular programs. I will offer some ideas as to different exercise choices, how to progress and some guidelines as to how many and how often.

Please note that what I put in this section are only suggestions as to how to think about creating your own exercise program. It also should be noted that I do not recommend starting any exercise routine without first getting screened by a physician as well as someone who can evaluate your mechanical system to make sure you are in proper muscular balance (without compensatory movement patterns). You can find a recommended exercise specialist in the Exercise Professional section on my site (<http://thethoughtdiet.com/layout3/exercises/>).

I look at prescribing exercise much like a doctor would prescribe the proper medication to help someone get well. Knowing now all that I have learned about physics (internal and external forces), joint mechanics, neuro-physiology, and the “human factor” (see The Thought Diet), I have a hard time just shelling out exercises without having a known direction. So, without knowing you, your mechanical system, your health, or your emotional awareness, I can not “prescribe” anything for you but I can give you some insight so you can make more educated choices about how you want to proceed with your physical action.

### **Resistance training – getting started**

Before creating any kind of program you must first understand what your goals are. How do you want your body to look? Do you want to gain muscle, firm up, get lean, or all of the above? You also need to determine how much time you are committing towards your physical program per day and week. Lastly, where you start will also depend on what your current activity level is now.

But no matter where you are starting from I always recommend taking some time to learn the basic mechanics of the exercises you have chose. What I mean by that is now that you have a better understanding of who is doing what in your body, when you choose an exercise or a machine to work a certain part of your body you should be focusing not on the weights in your hands but rather, the motion your muscles are providing your joints. And once you’ve mastered any motion, you can then start focusing on the muscle doing the work—focusing on the action the muscle is creating (I will talk more about this later).

If this is your first time getting into a resistance training program (or even if you have done some before but have not done anything in some time) I would always suggest starting with free weights (i.e. dumbbells) and cabled resistance. As I mentioned before, learning a movement without the guidance of a machine offers your muscles and joints to work within the desired plane and apply the appropriate forces. Once you have mastered a movement moving to something stricter would be a logical transition.

## Frequency

The things you must consider within your workout design would be how frequent you are going to workout with resistance. I would suggest if you are starting fresh to give yourself at least two days a week to do resistance training. Doing upwards to three or four times a week is also an option if you have the time so as long as you are giving yourself ample time to recover between your workouts. I like starting clients out with two, maybe three, times a week so they can give themselves two to three days off for rest, which allows room to grow. Meaning, if they felt they were not getting the physical results fast enough, they have room to increase the amount of time in the gym. It's hard to add more if you are already at your maximum. Not to mention, if you are doing the mental activity you shouldn't have to do a ton of physical work to get to your goals. Less can be more but more can be fun if guided by inspiration.

Next, I would suggest starting off with about 30 to 45 minutes sessions. Your sessions should always consist of providing a few warm up sets (a set is one time through a specific number of repetitions). Starting out with a very light weight will offer a few things. One, it will help your nervous system connect to and recruit the proper muscles. Two, it will help you learn (if you are just starting out) or familiarize your muscles and joints with the motion you are going to load up. And three, it will prepare the joint for the stresses that they are going to be taking on in the upcoming sets. You will have prepared the joint by getting blood flow to the muscles, creating a neurological awareness and increase joint fluids that will act like lubrication so the joints can handle the stresses of heavier loads.

For the beginner, I suggest doing 1 to 3 sets not including one or two warm-up sets and a cool down set. For the first week, or until you have mastered the lighter weight, try not going beyond 50% of your total capable strength output and keep the sets to one or two. One way to determine this without having to do a one-rep maximum (lifting the heaviest weight possible for one rep—which is NOT advised if you have not learned the motion yet) is to assess how hard you are working. I like to use a scale called the Rate of Perceived Exertion scale (RPE scale). On a scale of 1–10, 10 being the hardest, rate how hard the activity is to do within your goal repetition range (I will discuss the ranges later in the chapter). If you are starting with a very light weight you will have some leeway in working yourself up to a more challenging level of resistance. For example, if you are doing a dumbbell chest press with 5 pounds and you rate that at a 2 and you have controlled that movement, use that as your first warm up set and move up say 5 more pounds. If you do not have control over the light resistance, even if it is a two on the RPE scale, do not move to heavier resistance until you have control of this level. You must earn the right to go heavier.

If you do move up to say 10 pounds and it is a challenge but you did not fail, chances are you will have been working at about a level of 5 or so. You should feel the muscles working and feel in control of the movement. Again, if this is your first week working out, either in a while or first time ever, use this first week to get acclimated—stay within the 50% effort range (again, only doing one or two sets). You will notice that even at this low level of intensity you will still be exerting effort and burning calories. If you come out of the gate too fast and do too much there is a good chance you might damage the

muscle too much and require more rest to allow for proper healing before you can get back to training (also see the free Stress Report on this site to understand the chemical ramifications of over-stressing your body). Lastly, even at lighter resistances, if you have not worked out recently, you may notice some minor muscle soreness. It doesn't take much when you are starting out.

Once you have gained control and are ready to move on to more resistance, you can start adding the third heavier set (which will now be considered your first hard working set). This set should be close to failing (if not totally failing) to do another repetition in your desired rep range. Do this for about two or three sessions and then add a fourth set (or second hard working set) towards failure (note: failure is an industry term. I prefer exhaustion). By bringing a muscle to failure you will be breaking down some of the muscle fibers, which will cause it to rebuild itself stronger and possibly bigger (depending on the rep range). Eventually you can start adding one more set to failure.

I also suggest for beginners and people with limited time to do a full body workout. This would consist of a few upper body activities, a few leg activities and some core work. When you have worked in the beginning stage for more than about 6 weeks, you should now be in the intermediate stage where you can start adding more exercises to your routine. Meaning, you can choose more than one exercise for the same body part (1-2 sets per exercise). Once you have become more advanced, you can start splitting your routines into doing different body parts on different days (will give more examples of all this later in the chapter), if you choose.

### **Repetitions, Sets and Rest**

There are many different repetition ranges (rep range) one could work in to help influence how the muscle system will respond. The goal of working in a rep range would be to have an appropriate amount of resistance so that by the time you reached the designated range you will be approaching full fatigue, or failure (unless, of course, you are doing a warm up set). For example, if you set your rep range between 12 and 15 you would want to have an appropriate amount of resistance so that you would not be able to exceed the maximum (in this case, 15) and would get to or beyond the minimum (12). If you were able to move beyond 15 without failure, you would want to increase the load for the next set. If you could not complete 12 then lightening the load for the next set would be advisable.

If you got beyond your rep range and didn't want to increase the load, you could decrease the amount of rest in between the sets. On the other hand, if you didn't reach your rep range and you didn't want to lighten the load, you could increase your recovery time to allow for full muscle recovery. Chances are if you could not get to the low end of the rep range on your first fully resisted set than it would only make sense to lower the weight. This principle of increasing your recovery time makes sense only if you are doing multiple sets and you have already achieved the desired rep range and perhaps did not allow enough time to fully recover.

The amount of rest between each set is also set based on the goal of the workout and the time available for your workout. There are many different variations of reps, sets, ways to

split up the exercises and how much time to give in between exercises. Below I have included a basic outline about sets, reps and time needed to recover from the work recommended for either a beginner or an intermediate. Note: the sets are listed for one specific muscle group for the purpose of the beginner. More advanced training can include multiple exercises for per workout (I will discuss in more detail later in the section).

<u>SETS</u>	<u>REP RANGE</u>	<u>REST</u>	<u>GOAL</u>
2-4	4-6	3-5 MIN	Power
2-4	6-8	2-3 MIN	Strength
2-4	8-10, 10-12	1-2 MIN	Hypertrophy*
2-3	12-15	30s-1 MIN	Endurance/ Toning
1-3	15-25	30s-1 MIN	S/A/A

\*Hypertrophy means muscular development

Note: whenever you take a muscle to failure, you want to give it at least 48 hours to rest before challenging it again.

These rest times are applicable when doing what is called “straight sets”, which is doing one set for a particular muscle group and resting without doing anything before doing another set. This is ideal for beginners when they are learning control. Once a beginner has learned to control their movements and has started to challenge himself or herself with resistance (going to failure) they could start doing what is called “split sets” or “super sets”. This is when you move between two or more different body parts.

For example, if you are doing a complete body workout that day, you could do one chest exercise and then move right into a leg exercise with no rest. Once you have completed the leg exercise you move right back to the chest exercise and so on. There is no perfect way to split up a workout in this manner as you could do your upper body exercises back and forth. The only considerations to make would be to leave the smaller arm exercises (like biceps and triceps) to be done after you have completed chest, lats and shoulders. This is because these muscles tend to get used during the bigger movements anyway.

You can also add in a cardiovascular activity like riding the bike during your rest period. This starts to get into what is called circuit training. Doing an entire round of all exercises or muscle groups before starting over with the first muscle group is also considered circuit training. You can go through the entire body doing one exercise for each body part before repeating. There are no limits to what you can mix and match during your workout. Circuit training and split training also offer a cardiovascular component that will help with overall energy expenditure.

For more advanced people, splitting the body parts between workout days allows for more attention to be placed on the muscles chosen for that days workout (not to mention, you get your rest time taken care of automatically). For example, you could choose to do your chest and lats one day, your shoulders and arms another and save the legs for a third day (adding core exercises where ever you wanted).

Again, there is no perfect way to split up the body. You could even do one half of the body one day and the other half the other day. And, if you were able to add a third day, you could repeat the first workout again and switch back and forth each week. In doing any kind of body split, you could add more exercises and, ultimately, more sets to target those muscles. Doing body splits like this will also require more recovery time between workouts so you could get away with only working that body part once that week. Lastly, if you are limited in how much you can dedicate towards your daily workouts, doing a split offers a great way to get in and out of the gym, leaving the other body parts for the next day.

### **Example Routines**

#### **Beginner**

<b>Muscles</b>	<b>Example Exercises</b>	<b>Sets</b>	<b>Reps</b>	<b>Rest</b>	<b>Days/week</b>
Chest	DB Presses, Cable Press	1-3	10-12 12-15 15-20	:30-1 Min	2-3
Lats/Upper Back	Pull Downs, Seated Rows	1-3	10-12 12-15 15-20	:30-1 Min	2-3
Shoulders	Side Raises DB Shoulder Press	1-3	10-12 12-15 15-20	:30-1 Min	2-3
Biceps	Standing DB Curls Seated DB Curls	1-3	10-12 12-15 15-20	:30-1 Min	2-3
Triceps	Push Downs Lying Extensions	1-3	10-12 12-15 15-20	:30-1 Min	2-3
Quads/Glutes	DB Squats, Leg Press, Knee Extensions	1-3	10-12 12-15 15-20	:30-1 Min	2-3
Hamstrings	DB Deadlift, Lying Curls	1-3	10-12 12-15 15-20	:30-1 Min	2-3
Abs	Crunches, Rotated Crunch	1-3	10-12 12-15 15-20	:30-1 Min	2-3
Spinal Erectors	Lying Back Extension	1-3	10-12 12-15 15-20	:30-1 Min	2-3

Note: choose one exercise for each body part. Once you have mastered that exercise, you can choose another to master. Again, these exercises are just samples and recommendations as to things to start with.

### Intermediate

Muscles	Example Exercises	Sets	Reps	Rest	Days/week
Chest	DB Presses, Cable Press, Push Ups, Bench Press, Machine Chest Press, Cable Fly	2-4	8-10 10-12 12-15 15-20	1-2 Min :30-1 Min	2-3
Lats/Upper Back	Pull Downs, Seated Rows, Bent Over Rows	2-4	8-10 10-12 12-15 15-20	1-2 Min :30-1 Min	2-3
Shoulders	Side Raises DB Shoulder Press, Rear Deltoid Raises, Front Raises	2-4	8-10 10-12 12-15 15-20	1-2 Min :30-1 Min	2-3
Biceps	Standing DB Curls, Seated DB Curls, Incline Curls, Preacher Curls, BB Curls	2-4	8-10 10-12 12-15 15-20	1-2 Min :30-1 Min	2-3
Triceps	Push Downs Lying Extensions, Rope Press Downs, Kickbacks	2-4	8-10 10-12 12-15 15-20	1-2 Min :30-1 Min	2-3
Quads/Glutes	DB Squats, Leg Press, Knee Extensions, Single Leg Squats, Lunges	2-4	8-10 10-12 12-15 15-20	1-2 Min :30-1 Min	2-3
Hamstrings	DB Deadlift, Lying Curls, Lying Hip Extension	2-4	8-10 10-12 12-15 15-20	1-2 Min :30-1 Min	2-3
Abs	Crunches, Rotated Crunch, Reverse Crunches, Planks, Stability Ball Crunches	2-4	8-10 10-12 12-15 15-20	1-2 Min :30-1 Min	2-3
Spinal Erectors	Lying Back Extension, Stability Ball Extensions	2-3	10-12 12-15 15-20	:30-1 Min	2-3

Note: You can choose two exercises for each of the body parts keeping the sets to 1 or 2 sets for each. I added more rest for the lower rep range as you will be going heavier and will need a bit more time to recover. You also may stick with one exercise per body part but may start choosing more challenging and advanced exercises—ones that include more balance and using machines.

### Advanced

Here are a few examples of splitting your workouts up into different days. Again, there is no perfect formula for this.

**Example one – three day split (can be put into 5 day rotation as well)**

**Day one**

Muscles	Example Exercises	Sets	Reps	Rest	Days/week
Chest	DB Presses, Cable Press, Push Ups, Bench Press, Machine Chest Press, Cable Fly, Single Arm Cable/Tubing Press, Stability Ball Push Ups	3-6	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-2
Lats/Upper Back	Pull Downs – (Wide Grip, Narrow Grip), Seated Rows, Bent Over Rows, Single Arm Bent Over Rows, Single Arm Cable/Tubing Rows/Pull Downs	3-6	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-2

**Day two**

Shoulders	Side Raises DB Shoulder Press, Rear Deltoid Raises, Front Raises, Cable/Tubing Raises (front, side, rear)	3-6	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-2
Biceps	Standing DB Curls, Seated DB Curls, Incline Curls, Preacher Curls, BB Curls, Alternating Curls, Single Arm Curls	3-6	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-2
Triceps	Push Downs Lying Extensions, Rope Press Downs, Kickbacks, Cable/Tubing Extensions, Alternating Extensions, Single Arm Extensions	3-6	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-2

**Day three**

Quads/Glutes	DB Squats, Leg Press, Knee Extensions, Single Leg Squats, Lunges, Walking Lunges, Reverse And Forward Step Lunges	3-6	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-2
Hamstrings	DB Deadlift, Lying Curls, Lying Hip Extension, Single Leg Dead Lift, Single Leg Curls	3-6	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-2
Abs	Crunches, Rotated Crunch, Reverse Crunches, Planks, Stability Ball Crunches, Leg Lifts	2-4	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-2

Spinal Erectors	Lying Back Extension, Stability Ball Extensions	2-3	10-12 12-15 15-20	:30-1 Min	1-2
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Note: I personally don't feel it is necessary to do low reps when targeting your abs or lower back muscles since these muscles tend to get used in most every exercise you do. I also recommend doing the abs and lower back exercises towards the end of your workout so you don't fatigue them and lose stability that is much needed during your other exercises.

Also, mixing and matching any of the body parts throughout the week is perfectly fine and suggested to help mix things up. When working harder in the advanced stages, I always suggest the same warm up and cool down phases be added as well as taking a week or so to build up to the harder resistances upon starting a new routine.

Lastly, it is advised to give yourself a week of rest every 6 to 8 weeks to allow for your body to fully recover. This will also give you a chance to change up your routine and shock your body all over again. Rest is such a crucial part of any workout program as this is the time when your body is working hard to rebuild and grow. The actual resistance part of your workout is the breaking down part and time is always needed for your body to repair itself. Over-training will only slow your results down—more in this case is not necessarily better.

Lastly, in this advanced stage you can pick up to three exercises per body part.

### Example two – two day split

#### Day One

Chest	DB Presses, Cable Press, Push Ups, Bench Press, Machine Chest Press, Cable Fly, Single Arm Cable/Tubing Press, Stability Ball Push Ups	3-5	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3
Lats/Upper Back	Pull Downs – (Wide Grip, Narrow Grip), Seated Rows, Bent Over Rows, Single Arm Bent Over Rows, Single Arm Cable/Tubing Rows/Pull Downs	3-5	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3
Shoulders	Side Raises DB Shoulder Press, Rear Deltoid Raises, Front Raises, Cable/Tubing Raises (front, side, rear)	3-5	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3
Biceps	Standing DB Curls, Seated DB Curls, Incline Curls, Preacher Curls, BB Curls, Alternating Curls, Single Arm Curls	3-5	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3

Triceps	Push Downs Lying Extensions, Rope Press Downs, Kickbacks, Cable/Tubing Extensions, Alternating Extensions, Single Arm Extensions	3-5	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3
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## Day Two

Quads/Glutes	DB Squats, Leg Press, Knee Extensions, Single Leg Squats, Lunges, Walking Lunges, Reverse And Forward Step Lunges	3-5	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3
Hamstrings	DB Deadlift, Lying Curls, Lying Hip Extension, Single Leg Dead Lift, Single Leg Curls	3-5	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3
Abs	Crunches, Rotated Crunch, Reverse Crunches, Planks, Stability Ball Crunches, Leg Lifts	2-4	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3
Spinal Erectors	Lying Back Extension, Stability Ball Extensions	2-3	10-12 12-15 15-20	:30-1 Min	1-3

## Another example of a two day split

### Day One

Chest	DB Presses, Cable Press, Push Ups, Bench Press, Machine Chest Press, Cable Fly, Single Arm Cable/Tubing Press, Stability Ball Push Ups	3-5	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3
Shoulders	Side Raises DB Shoulder Press, Rear Deltoid Raises, Front Raises, Cable/Tubing Raises (front, side, rear)	3-5	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3
Triceps	Push Downs Lying Extensions, Rope Press Downs, Kickbacks, Cable/Tubing Extensions, Alternating Extensions, Single Arm Extensions	3-5	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3
Quads/Glutes	DB Squats, Leg Press, Knee Extensions, Single Leg Squats, Lunges, Walking Lunges, Reverse And Forward Step Lunges	3-5	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3

Abs	Crunches, Rotated Crunch, Reverse Crunches, Planks, Stability Ball Crunches, Leg Lifts	2-4	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3
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## Day Two

Lats/Upper Back	Pull Downs – (Wide Grip, Narrow Grip), Seated Rows, Bent Over Rows, Single Arm Bent Over Rows, Single Arm Cable/Tubing Rows/Pull Downs	3-5	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3
Hamstrings	DB Deadlift, Lying Curls, Lying Hip Extension, Single Leg Dead Lift, Single Leg Curls	3-5	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3
Biceps	Standing DB Curls, Seated DB Curls, Incline Curls, Preacher Curls, BB Curls, Alternating Curls, Single Arm Curls	3-5	6-8 8-10 10-12 12-15 15-20	2 Min 1-2 Min :30-1 Min	1-3
Spinal Erectors	Lying Back Extension, Stability Ball Extensions	2-3	10-12 12-15 15-20	:30-1 Min	1-3

Note: With any of the splits, I have put only one to three times per week for that area, not total number of workouts that week. That will be determined by your time commitment and availability. Again, you can mix and match any of the body parts on any day. Lastly, it is only recommended to do three to five total sets but if you work out with total focus using intention to really fatigue the muscles, it may not be necessary to do so many sets. Again, more is not always better.

No matter which workout you start with or choose to do it is always recommended that you progress into your workout with joint specific activity and a cool down using the same motion with light weight (your initial warm up weight/resistance should work well). Also, doing anyone of these routines with short bursts of cardio activity or doing different resistance exercises back-to-back or in a circuit will add a greater cardiovascular component to your workout. You can add a one minute or two minute cardiovascular intervals in between each exercise, after each super set or after each round of a circuit. There is no specific way of getting it right. Creativity is up to you or your trainer.

## Cardiovascular Activity

Cardiovascular activity is fairly simple. It's anything that you do repetitiously for an extended period while maintaining a specific level of heart rate activity that uses oxygen as its primary source of energy. Things like walking and running are good examples of cardiovascular activity. The main purpose of cardiovascular activity is not only to help

your cardiovascular system (heart, lungs and circulatory systems) remain conditioned and active, but also to help burn extra calories to achieve a healthy caloric deficit to assist in burning fat for fuel. I must also mention there are many other reasons for cardiovascular activity like training for a sport or an event but the main focus of this section is to give you some guidelines to help you in your body image goals—that is, if cardiovascular activity is something you are inspired to do as doing anything less then inspiring may work against you (see Stress Report).

The main thing with doing any kind of cardiovascular activity is to keep your heart rate at a certain level throughout the entire duration of the exercise, except for your warm up and cool down (or better stated, warm down). There is a basic formula that has been created to help you determine your appropriate heart rate range. The easiest formula to help you determine your target heart rate zone (will discuss the zones in more detail in a minute) is:  $(220 - [\text{your age}]) \times 55-75\%$ .

The range of 55-75% should keep you in an aerobic capacity. If you work in higher ranges you will typically be burning more glucose (sugar stores) than converting stored fat into energy. This is not to say that you won't burn glucose during lower levels of activity nor does it suggest that you won't create a fat burning scenario if you go into higher ranges. The purpose of keeping your heart rate range in the aforementioned zone is to keep it simple and give room for expansion.

Ultimately, as I mentioned earlier, the goal is to create a healthy caloric deficit that will elicit, either during your activity and/or after your activity, a metabolism of stored energy—i.e. fat. It is much healthier to create an energy deficit through activity than it is reducing your caloric intake to create the same deficit. Traditionally, it is in a minor caloric deficit (no more than 250 or so a day) that you will start to consume stored energy for fuel to make up the difference of calories consumed and calories expended during a day. Note: This is the physical perspective to go along with the non-physical perspective established in the main part of The Thought Diet. The non-physical action is more important than the physical action in order for the physical action to make a substantial difference.

For beginners I suggest starting with a heart rate range between 55-65% for no more than 20-25 minutes three times a week. This time does not include a warm up, which is the time you slowly work yourself up to your target rate (should take 5-10 minutes), or a warm down (working back to your starting rate). This can simply be measured by wearing a heart rate monitor or taking your pulse (measure at your wrist with your index finger and your middle finger—count for 10 seconds and multiply by 6. You can also count for any length of time so as long as the multiplying number works out to be 60 seconds).

I also recommend starting on a piece of equipment that will be easy to maintain your activity level and is low impact, such as a stationary bike, stair climber or elliptical machine as well as choosing something you will enjoy (for the mental part). Walking either on a treadmill or outside will work just as well so long as you are mechanically sound (again, a mechanical screen would be very advantageous here). Walking and running are considered somewhat advanced exercises due to the amount of ground-force

reactions (the foot hitting the ground and your body having to resist the force of impact throughout the entire body—as a large amount of muscles from the foot and ankle complex all the way up through the shoulders and neck need to be working efficiently to provide smooth and efficient movement) that are being distributed throughout the body.

Another way of measuring your activity level during cardiovascular activity would be to use the same aforementioned RPE scale. You can correlate the percentages with the scale. For example, if you plan to remain between 55-65%, your rating on the scale should be around a 6 (at a 6 or 7 you should just be breathing heavier but not out of breath enough to where you could not hold a conversation). Using this scale alone, or in conjunction with your heart rate, will tell you when you have become conditioned enough with the activity (meaning you have adapted to the movement enough for it to no longer be a great challenge) you can increase the work load by increasing the resistance of the machine or in the case of an elliptical, you might be able to change the stride length or angle. If you are walking or running on a treadmill, you would change the incline.

I usually recommend people to change the apparatus/stimulus every two weeks. That way, the body is continuously being shocked and never really has time to adapt to the exercise. Switching between three different types of cardiovascular activities (one every two weeks) would be a great way to not only keep things interesting but a great way to shock your body—again, choosing activities that you enjoy. By the time you get back to the first activity your body will have most likely unlearned the movement as it has had to learn two new movements over the past month. Switching activities is very useful when trying to burn extra calories but not so advantageous when training for an event or sport. The idea of training over and over again with any stimulus is that your body will build a tolerance to that movement and over time will become more efficient at it—adapting to it. When trying to reduce body fat or get leaner, you would be at a greater advantage if you did not become better or more efficient at doing the activity.

At some point you may need/want to increase your cardiovascular activity to help stimulate more change. There are many things you can change in order to shock your system again. For one, you can increase the effort up from 55-65% to 60-70% or even up to 65-75%. You can also increase the amount of time you are in your target zone but I recommend starting with increasing the heart rate first—more work, less time. I already mentioned you could change the type of activity you do. Lastly, you could also change the amount of days you are doing cardiovascular activity. Start with adding one day—you want room to be able to grow. If you start out with 40 minutes of cardio, five days a week, where do you go from there?

For those who are a bit more advanced and what a greater challenge, doing some interval training may shock things up a bit. For example, say you are using the stair stepper machine and you are comfortably working at a level 7 (on the RPE scale), which, for the sake of having some numbers to play with, could be moving at about 60 feet per minute (most machines measure vertical feet climbed). You could stay at this level for 3 or 4 minutes and then for one minute raise the machine up to 80 feet per minute (bringing you up to about an 8 or a 9 on the RPE scale). Then bring the level back down to 60 or so for another 3 or 4 minutes to recover. Once you have recovered, hit it again. You can do any combinations of the interval. You could go up to a 9 or a 10 for 30 seconds or a minute

and spend the next five or minutes recovering. You could go up to an 8 for 3 minutes and down to a 6 for three. There's no magic in this.

The only thing I must add here is please make sure you are healthy enough to do this type of activity. This is something you work up to after you have been given the go ahead from your doctor or trained cardiovascular specialist and you have been doing cardiovascular activity for some time.

Lastly, the asset of doing intervals is in the recovery period after you have completed. Your body will be in a higher state of recovery and will/may continue to burn calories at a higher level. Note: getting to this level of activity is usually not necessary if you align yourself mentally first. I use this with my clients who feel they need something different or need to be challenged more.

*To have an in-depth look into your joint/muscular system (and to have any imbalances treated) I recommend seeking out a Muscle Activation Techniques Certified Specialist. To find out more about the technique and to locate a specialist go to [www.muscleactivation.com](http://www.muscleactivation.com) or check out my list or resources (link here). Of course, any specialized physician/orthopedic physician, physical therapist or chiropractor can also evaluate your mechanical system.*