

Advanced Cardiovascular Programs

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Personalized cardiovascular training is an untapped market in most clubs. As your clients improve their cardiovascular fitness level you need to add variety. Here you begin designing workout programs based on the goals you have for a particular day. Like weight training, you are now setting a goal for each workout. In weight training the goal might be legs, back or biceps for that day. Most people overlook this benefit of cardiovascular goal training because they are too focused on calorie burning or finishing up the 30-minutes they programmed into the equipment. Each work should have a specific goal, so I have come up with four possible goals for your cardio program:

1. Cardio-respiratory improvement

2. Strengthen/ toning

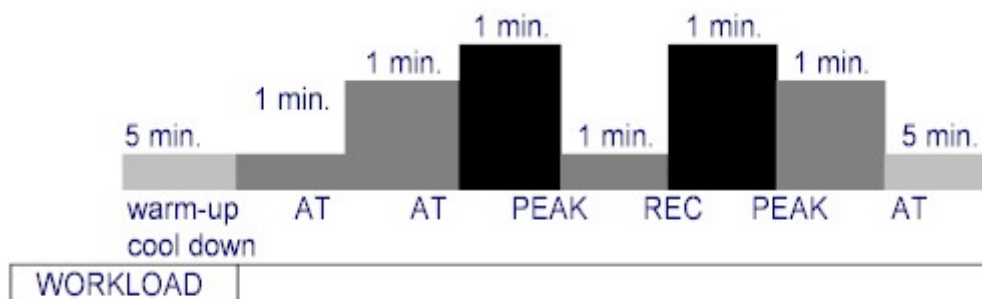
3. Improve Endurance

4. Recovery -“fat burning”.

These programs would use the same three-zone system that was described in the previous article on designing a cardiovascular base. In review the zone are as follows: To use the heart rate chart, take 220 minus your age then use 65% of that number for the “recovery zone”- zone one, 85% for the “anaerobic threshold”- zone two, and 90% for “peak”- zone three. *Note: Before undertaking any advanced workout, clients must first go through an extensive aerobic base building program.*

Cardio-Respiratory Exercise programs are designed to increase your overall cardiovascular fitness level. The main focus is to strengthen the heart and respiratory system by going to your PEAK- zone three. **Cardio-1** (below) is an example of true intervals, and you'll reach your peak two times during each interval. During the first five minutes use zone one to warm-up. Then, slowly increase the workload to climb through zone two over a period of two minutes until you reach your peak for the final minute. In this program, increase the workload every minute, and your heart rate should slowly increase. The goal is to get to the top of zone two at the end of the gray shaded area below. If you get to the top of zone two early, just keep the workload constant until it's time to go into zone three-peak. In the next minute you will climb to zone three. After a one-minute break at a lower workload, you'll go to zone three for one minute prior to reducing the workload and taking your heart rate back to zone two. After a few times of going through each workout, you'll have a feel of how fast to move the workload up and down. This entire process is considered one interval. After returning to your recovery or zone one for five minutes you'll move onto the next interval.

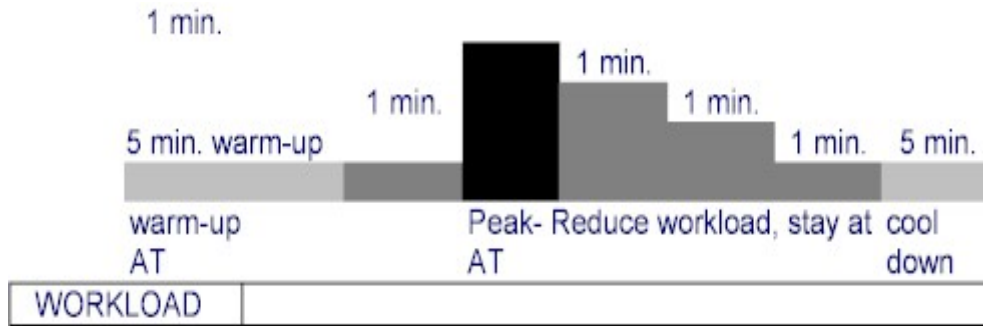
Cardio 1



With this program, the idea is to work on the heart and lungs, but for many people cardio-one burns out their legs before they truly start working on the heart. In program **cardio-2**, do a warm-up then increase the workload to a point where your heart rate will reach its peak, which should take one or two minutes. After reaching your peak, start to

reduce the workload so your heart rate will stay at the top of zone two. The heart rate should stay up there for the rest of the interval, but keep backing off the workload so you stay fresh. You'll feel it more in the heart and lungs, and not in the legs.

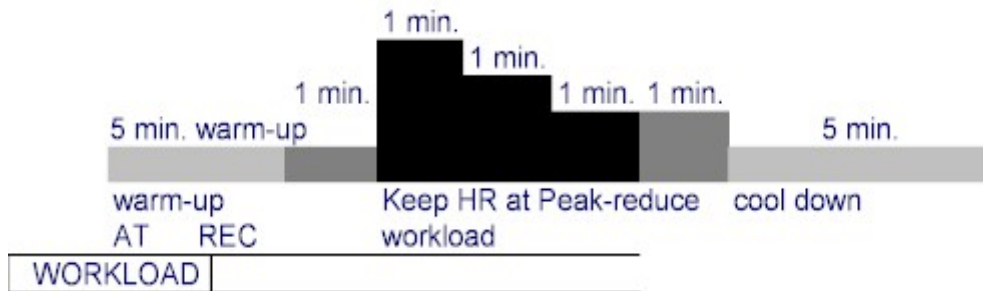
Cardio-2



Cardio-3: A more advanced workout that works by reducing the workload even slower so you can stay at your peak longer. A third type of cardio respiratory exercise program works on your recovery rate. Again, recovery rate is a very important factor in helping to determine fitness improvement and over-training.

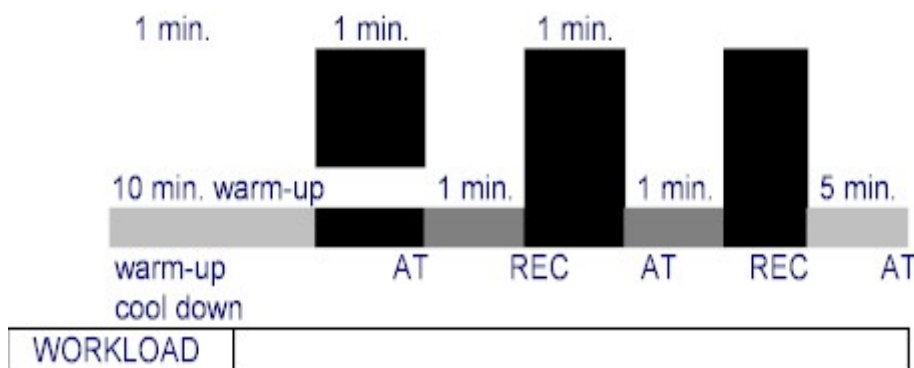
Cardio-3

15 minute workout



In **Cardio- 4**, warm-up and go into a series of sprints every minute. Increase the workload to bring the heart rate up to your peak, and then take a one-minute break. This break is what we call "active recovery." Bring the workload down to your starting workload, but your heart rate will not come all the way down. Use this active recovery heart rate as your gauge to prevent over-training by making sure you repeat to that heart rate before you start the next sprint, then increase the workload for the next minute. It might take a few sprints before you hit your peak – a series of three sprints is one interval. You will need to totally recover in your zone one before starting the second interval. This could be up to five- ten minutes.

Cardio-4



A more advanced program would have you go to your peak for two minutes then drop the workload to starting level for two minutes, then check your heart rate after the two minutes at the lower workload. Repeat the two minutes up and two minutes active recovery until your heart rate does not return to the “active recovery” rate (the rate you recorded after the first interval). Let your body tell you how many intervals to do each day. Working up to this two-minute sprint will give you best cardiovascular improvement.

The recovery workouts are designed to help increase the recovery time of the heart. Other than being a good indicator of good cardio fitness, these workouts will also help in your weight training. The stronger you can make the heart, the faster you will recover. This improves your weight training by letting the muscle recover and prepare for the next set.

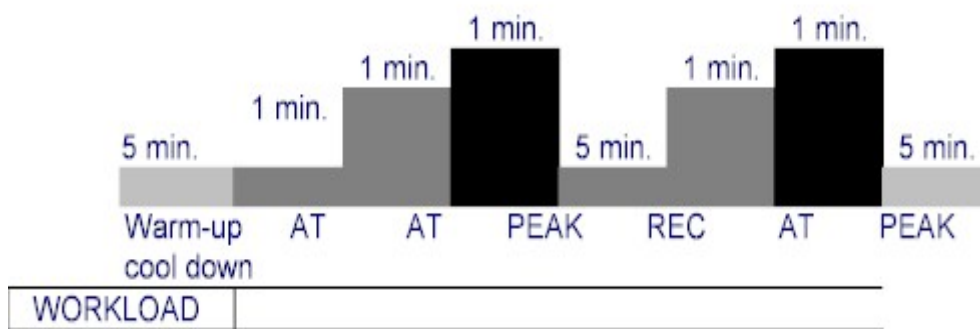
The primary benefit of cardio-respiratory exercise programs is that they work the heart with out burning out the legs. It's a great way to train for a 10K race once a week to help increase running times. If you train at the same pace all the time, you'll never increase your anaerobic threshold and you will not be able to increase your running speed. You can use any of the above workouts once a week to help that increase the cardio strength.

2. Leg Strength/ Toning

These programs are designed to help reach three different goals. For starters, they can help women who join fitness centers to lose weight and tone up their legs, but who waste a lot of time doing light leg exercises with weights. There is a time and a place for these leg workouts, but to truly tone the legs you have to do more. One of the best leg toning exercises is riding a stationary bike or using a stair-step machine. Leg strength/toning is also beneficial for the member who is trying workout in the cardio-respiratory programs, but who finds that their legs give out before their heart is properly trained. And, this workout is also great for getting members to cross-train. Cross training means using different types of cardiovascular equipment for your workout. Many people stay on the treadmill because they say they can't get past level two on the bike or the stair machine, but all this tells me is that they need to do leg strengthening exercises.

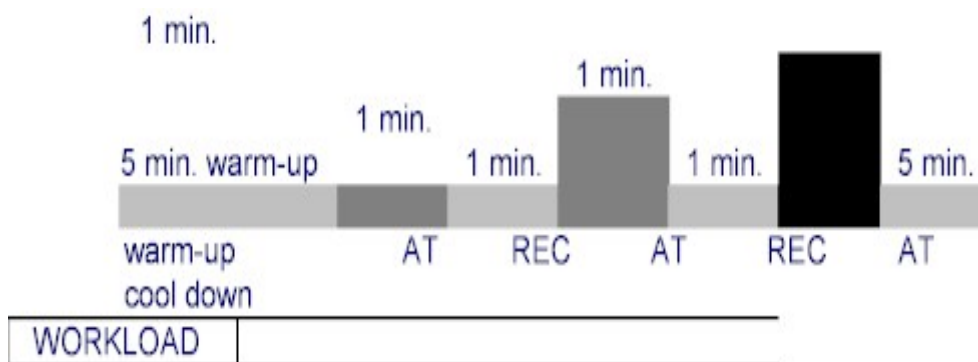
To improve the leg strength on a given piece of exercise equipment, use one of two types of intervals. In **Leg- 1**, slowly overload the legs until you get to your peak or until your legs burn out. After a short warm-up in zone one, increase the workload. For example, when biking you might start at level one and every 30 or 60 seconds, you increase by one level. The stronger you are, the longer this interval will last. Your goal is to work the legs for three to 10 minutes.

Leg 1



If you are unable to exercise for three minutes, then start with the **Leg-2** program. This program begins with a warm-up like the Leg-one program, but after adding a level of resistance, you return to the first level. The increase will last for 30 to 60 seconds, so time in recovery should also be 30 to 60 seconds when you first start. After the 30- to 60-second recovery, add additional resistance. An example of this program would be to start the warm-up on a bike at level one for five minutes, then change to level two for 30 seconds, go back to level one for 30 seconds, proceed to level three for 30 seconds, then do 30 seconds at level one before going to level four. This program is designed to overload the legs slowly, and you'll want to continue this interval until you reach a level that burns out your legs, or, makes you hit your peak heart rate. The goal is to work your way up to be able to exercise for a longer period of time at the higher levels, with less rest in between, until you are doing the Leg one program.

Leg 2



Remember that with the leg-strengthening program, you are not concerned with your heart rate except for not allowing yourself to go past your peak. The goal is to work the legs hard for a long period of time.

3. Endurance

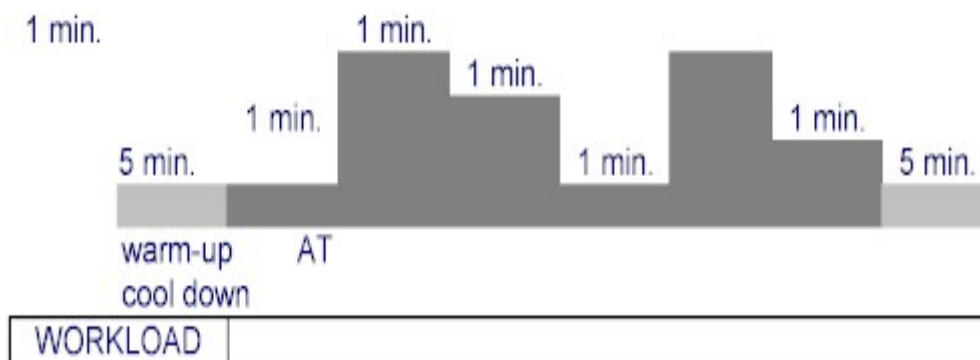
Endurance workouts are what most aerobic class participants and cardiovascular equipment users working out at a level for a longer period of time are doing. These people are staying around their anaerobic threshold, which is a good program for maintaining your fitness level, or to use a few times a week to stay in the zone two. Too many people just stay in this zone and they hit a plateau.

This is the most frustrating part of working out for most people. You come in five to seven times a week and feel like you're working hard during each workout, but you don't seem to improve. You could be working at a very high heart rate, but that just means you have a high anaerobic threshold. This is good, but in order to improve, you must go up to your peak. One reason for not improving is because you never let your body truly recover – you're starting the workout tired and finishing the workout tired. You don't have the energy or strength to go to your peak. This is over-training.

We can use weight training as an example of this type of over-training. We've all been told that to wait at least 48 hours in between weight training exercises. If you do a muscle group like biceps everyday, for example, you will slowly see your weights and reps decrease because of muscle fatigue. Your heart is a muscle and your legs can only train so long before they need rest. As a result, if you keep doing the same cardiovascular exercise at the same level, you won't see any gains and you might even see a decrease.

A good example of an endurance exercise would be program **Endurance 1**. In this beginner's program, you stay in zone two for the entire workout. In more advanced workouts, you might do short sprint at your peak, but for most part you will stay in zone two. Note: I also like to use aerobic exercise classes for endurance days a couple of times a week.

Endurance 1



4. Recovery

You can use Recovery in one of two ways. First, you recover in between each of your true intervals. Second, you must recover in between your high intensity days. Recovery programs are designed for active rest – basically, some people have to workout everyday or they don't feel good. Recovery workout should be done at least once a week and basically, this is just a walk. To truly increase fitness levels you must give your body the proper rest. During your recovery days you could be using a high percent of your calories from fat. I also stress one true recovery day each week, when you do no physical activity whatsoever.

These programs should help you design some new and varied workouts for your clients. The best way to use the above programs would be to use one of the cardio-respiratory or leg strengthen/ toning programs one day per week. Fill in the rest of the week with group exercise classes or zone two training to improve endurance. And remember not to forget to included essential recovery -"fat burning" - days.

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