

# How to Design a Personal Exercise Program

## Certain essential components will make your training pay off

The following components are essential to a safe, effective cardio exercise program. While this sets a foundation for training it is not an exclusive list. New exercisers are encouraged to have a check-up and get a doctor's ok before beginning an exercise program.

### Determine your maximum heart rate

While there are complicated treadmill tests to objectively measure maximum heart rate, most people will use a simple calculation to estimate maximum heart rate. The easiest formula is simply to subtract your age from 220.

A new method, published in *the Journal of the American College of Cardiology*, estimates maximum heart rate with the following formula: 208 minus 0.7 times age. Now that you know your maximum heart rate you will determine your overall training goal, and set your exercise intensity accordingly.

### Intensity

Determining how hard to exercise is the basis for solid training.

Intensity simply refers to your heart rate during training. The appropriate exercise intensity depends upon your maximum heart rate, your current level of fitness and your goals.

### Training Zones

- If you are just starting an exercise program it is essential that you check with your doctor before beginning. After you get the go-ahead, it is recommended that you exercise between **50 - 60 percent** of your maximum heart rate.
- If you already exercise regularly and would like to continue increasing overall fitness, or improve your times, you should, exercise at **60 - 70 percent** of maximum heart rate.
- If your goal is to improve aerobic capacity or athletic performance, you will likely be exercising in the training zone, which is **75 - 85 percent** of maximum heart rate.

While these zones are general recommendations, it is important to understand that varying your training intensity is important no matter what your fitness level. There may be times when a highly trained athlete will train in the 50 - 60 percent zone (for recovery or long, slow, distance training, for example). Studies show that people who exercise at too high an intensity have more injuries and are more likely to quit.

Competitive athletes may need to add higher intensity interval training sessions on occasion to help train muscles to handle lactic acid.

### Type of exercise

For general conditioning choose activities that use large muscle groups and which are continuous in nature. Some good examples are walking, swimming, running, aerobic dance, stair climbing machines, ski machines, treadmills, cycling or exercise bikes.

For those who are seeking to improve athletic performance, you will also want to use sport-specific training. The principle of specificity states that to become better at a particular exercise or skill, you must perform that exercise or skill. Therefore, a runner should train by running and a swimmer should train by swimming. There are, however, some great reasons to cross train, and it is recommended for all athletes.

**Frequency of exercise**

How often you exercise will depend upon your level of conditioning and your goals, as well as the intensity of your training. The higher your intensity, the more you should rest, so your frequency should decrease accordingly. For general training, it is recommended that you exercise in your target range at least 3-5 times per week, with no more than 48 hours between sessions.

**Time of exercise**

General fitness can be improved in as little as 30 minutes 3 times a week. For improved conditioning, you should try to maintain 30-60 minutes of continuous exercise in your target zone each session.

**Warm up & cool down**

It is highly recommended that you include an easy warm up of 5-10 minutes, before moving up to your training heart rate. A 5-10 minute cool down after your training may result in faster recovery and less muscle fatigue. If you stretch, this is the best time because your muscles are warm and flexible and the risk of injury is low.