



Aerobic Exercise is a Building Block For Physical Fitness

We know that aerobic exercise is a cornerstone to keeping us physically fit. But, what exactly is it?

The American College of Sports Medicine (ACSM) defines aerobic exercise as "any activity that uses large muscle groups, can be maintained continuously, and is rhythmic in nature." It has also been defined as exercise that increases our need for oxygen, thus elevating our heart rate and breathing for a sustained period of time. So, to be training in our aerobic zone we must be exercising at a fast but stable rate where our hearts and lungs are working to keep up with our body's demand for the blood and oxygen necessary to continue exercising.

Aerobic exercise, often called cardio or cardiovascular exercise, has many forms (e.g., walking, jogging, running, dancing, rollerblading, bicycling, swimming, land and water aerobic classes, rowing, and stair climbing) and can be done everyday without even knowing it. Walking up the stairs instead of taking the elevator, riding bikes with your family, and running with your dog are all forms of aerobic exercise.

What are the benefits of aerobic exercise?

Regular aerobic exercise, performed most days of the week, improves muscular endurance and makes our cardiovascular system (our heart and lungs) and bones stronger. During exercise, our muscles demand more oxygen-rich blood and give off more carbon dioxide and other waste products. As a result, our heart has to beat faster to keep up. When we follow a consistent aerobic exercise plan, our heart grows stronger so it can meet the muscles' demands without as much effort. We'll breathe easier and our hearts will be much healthier, thus helping to reduce the risk of illness and premature death. We all, regardless of weight, age, or gender, can benefit from aerobic exercise.

Some specific ways that regular aerobic exercise improves our health:

- Reduces body fat and improves weight control
- Reduces resting blood pressure (systolic and diastolic)
- Increases HDL (good) cholesterol
- Decreases total cholesterol
- Improves glucose tolerance and reduces insulin resistance
- Decreases clinical symptoms of anxiety, tension and depression
- Increases maximal oxygen consumption (VO₂ max)
- Improves heart and lung function
- Increases blood supply to the muscles
- Enhances our muscles' ability to use oxygen

- Lowers resting heart rate
- Increased threshold for muscle fatigue (lactic acid accumulation)

How Much Aerobic Exercise Should We Do?

The guidelines for aerobic exercise follow the FITT principles (**F**requency, **I**ntensity, **T**ime and **T**ype).

Frequency is the number of aerobic exercise sessions we do per week. We should aim for at least 3 sessions per week with no more than 2 days off between sessions. But, 5 or 6 days of aerobic exercise a week with 1 to 2 days off is even better. Frequency is especially important when it comes to weight loss since more cardio sessions will help burn more calories.

Intensity is how hard we exercise during each session. Aerobic exercise should take place at a “moderate” intensity level (not too easy, not too hard). This intensity is ideal to obtain the general health benefits that come with exercise, and for weight loss. Common measures of exercise intensity and their recommended aerobic training zones are Heart Rate (60%-85% of our maximum), the "Talk Test" (able to talk but not sing), and Rate of Perceived Exertion (12-14 where 20 is maximal exertion).

Time is how long each exercise session lasts. When starting out, we should aim for 20 minutes per session and gradually work our way up to about 60 minutes. The further we go over 20 minutes, the more calories we'll burn and the more endurance we'll build. But, if we don't have time for a long session, several shorter sessions over the course of the day will give us similar benefits.

Type is an activity that counts as aerobic exercise. Any activity that meets the requirements for **F**requency, **I**ntensity, and **T**ime is aerobic exercise.

Getting the Most Out of Your Aerobic Workouts

Tips to help us keep our aerobic workouts safe, fun, and consistent.

- Engage in an activity we enjoy so we'll stick with it
- Warm up for 5-10 minutes before starting our main activity
- Start slowly, listen to our body, and work at a pace that feels good
- Cool down for 5-10 minutes after ending our main activity
- Stay hydrated by drinking water before, during, and after exercise
- Don't exercise through an injury; give it time to heal
- Stop exercising if we feel chest discomfort, lightheaded, or dizzy
- Avoid strenuous aerobic exercise during viral infections (e.g., the flu)

or upper-respiratory tract infections

- Vary our exercise program to avoid boredom and plateaus:

Participating in different forms of aerobic exercise, either within each session or day-

to-day, will keep our body surprised and constantly adapting. We'll work harder, burn more calories, prevent overuse injuries, and build more lean muscle

Reference: SparkPeople.com 2009; *Physical Activity and Health: A Report of the Surgeon General*, CDC, 1999.