

COMPONENTS OF FITNESS/DEFINITIONS

Definitions & Components of Fitness

What is physical activity? Physical activity is defined as bodily movement produced by skeletal muscles that result in energy expenditure (using calories).

What is fitness? Fitness is defined as the ability to perform moderate-to-vigorous levels of physical activity without undue fatigue and the capability of maintaining this capacity throughout life. The *Principle of Overload* states that by making a particular system work harder (overload), such as the cardiovascular system, on a regular basis, that system will become more fit.

What are the components of fitness? There are four components of fitness as listed below. Although you may get more of an aerobic workout by bicycling (cardiovascular exercise) you may also strengthen the muscles in your lower body because of the resistance in pedaling (strengthening exercise). However, in order to increase your level of fitness in one of these components, you should utilize specific activities for that particular component. This is referred to as the *Principle of Specificity*.

Components of Fitness



1. Cardiovascular Fitness

The ability of the heart, lungs, blood vessels to deliver an adequate supply of oxygen to exercising muscles. Cardiovascular exercise utilizes the heart, lungs, and large muscle groups, such as running or walking.

2. Muscular Strength and Endurance



Muscular strength and endurance improves when a resistance is placed against particular muscles or groups of muscles, as in weight training.

Muscular Strength: the maximum amount of force a muscle or muscle group can develop during a single contraction.

Muscular Endurance: the number of repeated contractions a muscle or muscle group can perform against a resistance without fatiguing.



3. Flexibility

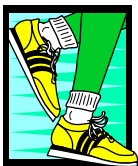
The ability to move a joint through its full range of motion; the elasticity for the muscle.

Referred to as the “range of motion” of a joint (e.g. knee or shoulder). Flexibility improves with activities such as stretching or yoga.

4. Body Composition

The amount of lean mass relative to the amount of body fat on a given individual. Although all activity will use calories, cardiovascular exercise is considered to be the most “fat burning” activity.

Any increase in frequency, intensity, or time, will cause you to increase your fitness level within any component. This is known as the *FITT Principle*.



F = frequency, or how many times per day or per week the activity is performed

I = intensity, or how hard the activity is performed (light, moderate, or vigorous)

T = time, or how long the activity is performed

T = type, or the mode of activity that is performed

Please note that in any activity there is relative risk of injury, or in some cases even heart attack. Caution is placed on increasing very slowly, and over time, as to prevent these risks. This is known as the *Principle of Progression*.

COMMON PHYSICAL ACTIVITY QUESTIONS & ANSWERS

How much physical activity is enough?

If you are inactive, doing anything is better than nothing! The Surgeon General recommends that all Americans accumulate at least 30 minutes of moderate-intensity activity on most days of the week. Individuals who already include moderate activity in their daily lives can see additional health and fitness improvement if they increase the duration of their moderate activity and/or include vigorous activities 3-5 days per week. Find activities that you enjoy and a partner if you need the support.

When I'm walking or doing other activities, how do I know if I am working at a moderate level?

There are many ways of measuring the intensity of physical activity. One of the easiest is the talk test. Just carry on a conversation while you are exercising. You should be able to talk normally without feeling like you are out of breath. However, if it is too easy to talk, you should pick up the pace. If you can't talk at all, slow down!

What's the best fat-burning exercise?

Aerobic activity is the best type of exercise for burning fat. Common aerobic activities include jogging, biking, swimming, and cross country skiing. Aerobic activities are those that are continuous, involve large muscle mass, and increase both the heart rate and breathing rate (cardiovascular).

Will sit-ups slim my waistline?

Spot reduction is a common fitness myth. The fact is you can't reduce fat in any particular area. Your body stores fat all over and when energy is needed, your body retrieves it from all over. Sit-ups tone and develop muscles, but aerobic activity is needed to burn your body's fat stores.

Why should I do muscle strengthening exercises?

Any resistance type of exercise, like weights, stretch bands or tubing, even using soup cans, will help to maintain your muscle as you age. Otherwise, you will become weaker and less functional as you get older. Strengthening exercises will also help strengthen bones. This can help to prevent osteoporosis, and enable you to do physical activities in your daily life – at any age! Be sure you wait at least a day before working the same muscle group. A common routine is to work your upper body one day and your lower body the next. It's never too late to begin this type of exercise, you will get benefits at 20 or 70 years old!

How can I effectively lose weight in a healthy manner, and keep it off?

The biggest thing to keep in mind when trying to lose weight is to take into account the calories you're taking in and the calories you're expending. 3,500 calories equals a pound. Visit www.mypyramid.gov to figure out your estimated caloric needs. Keeping a log of all the food you're eating a day is an easy way to see how many calories you're taking in, and where calories can be cut. Work on getting all your servings of fruits and vegetables and try to cut back on fats. You should lose no more than 2 pounds a week; anything more is not the ideal way to lose weight and will most likely result in weight gain later on. Avoid crash diets or fad diets, as these often result in quick weight loss in an unhealthy manner; the dieter will most likely gain back all the weight lost plus some.