

Components of Fitness Study Guide

Cardiovascular Fitness

Cardiovascular fitness refers to your ability to work continuously for extended periods of time (for example, walking briskly for twenty to forty minutes, cycling 5 to 10 miles, or in-line skating for thirty minutes to an hour). To develop it you must: use large muscle groups (legs), be steady and constant, and be uninterrupted for 20 minutes or longer. Your level of cardiovascular fitness depends on the ability of your heart to pump large amounts of blood to the muscles and organs of your body. It also is related to how well your lungs function and how well your blood vessels can deliver blood (oxygen) to your body. Examples of cardiovascular fitness activities might include walking, hiking, jogging, dancing, skipping rope, rowing, swimming, skating, and endurance games or sports.

Moderate to high levels of cardiovascular fitness are associated with increased longevity and reduced risk for cardiovascular disease and other hypokinetic conditions. Moderate to high levels of cardiovascular fitness are also associated with improved functional health.

Cardiovascular fitness can be improved simply by accumulating several minutes per day of activity in play, games, sports, work, getting to school, recreation, or planned exercise. Your cardiovascular fitness level is also determined to some extent by other factors, such as age, heredity, gender, activity level, and body composition.

Flexibility

Flexibility refers to the range of motion that your joints have during movement. Skin and connective tissue (such as tendons and ligaments) can restrict normal flexibility if not used regularly. Injured joints and excessive body fat can also restrict normal flexibility. Adults often lose their normal levels of flexibility because of the aging process and decreased participation in physical activities and exercise. Poor flexibility is associated with the development of many types of injuries, including lower back problems, muscle pulls, and muscle strains.

Good functional health depends on your improving or maintaining the range of motion (varying degrees of motion allowed) of your joints. You can do this by engaging in stretching activities that increase your muscular strength and muscular endurance, as well as improve your flexibility.

A moderate to high level of flexibility is important to you for efficient daily physical movements and can help reduce your risks for muscle and bone injuries. Moderate to high levels of flexibility can improve performance fitness and reduce some types of muscle soreness following physical activity or exercise. Stretches should be static, not ballistic, and be held for at least 30 seconds at a time.

Muscular Strength

Muscular strength refers to the maximal force that you can exert when you contract your muscles. Example: Bench-pressing one time as much weight as you can. Your muscular strength will vary according to several factors, such as your age, gender, genetic makeup, and conditioning level. A moderate to high level of muscular strength helps reduce your risk for muscle, bone, and joint injuries.

You can develop and maintain muscular strength in a variety of ways, such as doing weight training, calisthenics, or work that requires heavy lifting. Gains in muscular strength can occur rapidly, particularly if you have been very sedentary.

Muscular strength is also important to help you move efficiently and reduce your energy cost. Energy cost refers to the amount of energy required for you to perform different physical activities or exercise. You have heard the saying "If you don't use it, you lose it!" This saying especially applies to the elderly, who become sedentary and lose their muscular strength. When you lose muscular strength, it has negative effects on your functional health level.

Muscular Endurance

Muscular endurance refers to your ability to contract your muscles several times without excessive fatigue. Moderate to high levels of muscular endurance enhance your muscular strength and allow you to do more work without getting tired than you could if you led a sedentary lifestyle. Like muscular strength, muscular endurance is important to help you move efficiently and reduce your energy cost for physical activities or exercises. Physical activities such as doing sit-ups, push-ups, or work that requires repetitive heavy lifting can help increase your muscular endurance.

Body Composition

Body composition is the proportion of lean tissue (muscle) as compared to fat tissue in the body. It is influenced by heredity, fitness and diet. People need fat for energy, insulation, protection and vitamin storage.