

## **FITNESS/EXERCISE RELATED VOCABULARY**

**Aerobic activity-** Long duration exercise that relies on the presence of oxygen for the production of energy; it may also control body weight, reduce the percentage of body fat, improve the circulatory functions, and reduce blood pressure. Examples include aerobic dance, aqua aerobics, cycling, jogging, power walking, recreational dance, in-line skating, step aerobics, kickboxing, and super circuit.

**Anaerobic activity-** Short duration exercise completed without the aid of oxygen; it is used to build muscle mass and to improve one's ability to move quickly and to deliver force.

**Basic resistance principles-** Resistance is the weight or force that is used to oppose a motion. Resistance training increases muscle strength by putting the muscles against a weight, such as a dumbbell or barbell. The basic principles of resistance training include: type of lift, intensity, volume, variety, progressive overload, rest, and recovery.

**Biomechanics-** It is the study of human movement and how such movement is influenced by gravity, friction, and the laws of motion. It involves the analysis of force, including muscle force that produces movements and impact force that may cause injuries. It explains why motor skills are performed in certain ways in order to improve their efficiency and effectiveness.

**Body composition-** This is the makeup of the body in fat free mass (muscle, bone, vital organs, and tissues) and fat mass.

**Components of physical fitness-** Aerobic capacity, muscle strength, muscle endurance, flexibility, and body composition.

**Cool down exercises-** Five to ten minutes of light to moderate physical activity. It maintains blood pressure, helps enhance venous return, and prevents blood from pooling in the muscles.

**Core muscles-** These are the abdominal, back, hip, and pelvic floor muscles.

**Dehydration-** Loss of water and important blood salts like potassium and sodium which are essential for vital organ functioning.

**Ergogenic aids-** substances, devices, or practices that enhance an individual's energy use, production, or recovery.

**Flexibility-** This is the ability to move joints of the body through a normal range of motion.

**F.I.T.T. principles/concepts-** Inter-related and inter-dependent rules for gaining and maintaining physical fitness: They are FREQUENCY, INTENSITY, TIME AND TYPE of exercise.

**Frequency-** A principle of training that establishes how often to exercise.

**Health-related physical fitness-** Consists of those components of physical fitness that have a relationship with good health. The

components are body composition, aerobic capacity, flexibility, muscular endurance, and strength.

**Healthy fitness zone-** The lower and upper ranges of performance on physical fitness test(s) that have been identified as being related to good health.

**Healthy target heart rate zone-** A safe range of activity intensity that can be used to enhance the level of aerobic capacity

**Hyper-extension-** This is a greater than normal straightening of an extended limb.

**Hyper-flexion-** This is a greater than normal stretching or straightening of a flexible limb.

**Individuality-** A principle of training that establishes an exercise program must take into account the specific needs and abilities of the individual(s) for whom it is designed.

**Intensity-** This is a principle of training that establishes how hard to exercise.

**Large muscle groups-** These are the muscles that work together and have a large mass relative to other muscle groups in the body. Examples of large muscles groups are the arms, back, and legs.

**Mode/type-** a principle of training that establishes the specific activity to use to gain a certain effect. For example: to improve one's ability to run 3 miles faster, you would need to do frequent endurance type cardiovascular activity. Whereas, to improve your vertical leap, you would do more anaerobic and explosive type activities such as plyometrics, short sprints, and resistance training.

**Moderate physical activity-** moderate-intensity physical activity generally requires sustained rhythmic movements and refers to a level of the effort a healthy individual might expend while walking quickly, dancing, swimming, or bicycling on level terrain, for example. A person should feel some exertion but should be able to carry on a conversation comfortably during the activity.

**Muscle endurance-** The ability of a muscle to avoid fatigue.

**Muscle strength-** The ability of a muscle to exert force.

**Overload-** A principle of training that establishes a minimum threshold to obtain a benefit.

**Perceived exertion index-** A way of rating how hard you feel your body is working during physical activity. It is based on physical sensations you experience, including increases heart rate, increased respiration or breathing rate, increased sweating, and muscle fatigue.

**Physical fitness-** This is a positive state of well-being with a low risk of premature health problems and the energy to participate in a variety of physical activities. It is influenced by regular, vigorous physical activity, genetic makeup and nutritional adequacy.

Plyometric exercise- a rapid powerful movement preceded by a preloading counter movement which creates a stretch-shortened cycle of the muscle.

Principles of training/principles of exercise- Principles to follow in planning an exercise program to affect physiological changes in the human body related to health and performance including: frequency, individuality, intensity, mode/type, overload, progression, regularity, specificity and time.

Progression- A principle of training that establishes increases in the other elements addressed in the principles of training to provide improvements over a period(s) of time by essentially making the exercise harder. (This is usually best done in a gradual manner.)

Recovery rates- The time necessary for an exercise- induced elevated heart rate to return to a normal resting heart rate.

Regularity- A principle of training that establishes exercise on a regular schedule. A pattern of physical activity is regular if activities are performed most days of the week, preferably daily; five or more days of the week, if moderate-intensity activities are chosen, or three or more days of the week, if vigorous intensity activities are chosen.

Resistance principle- The principle that the use of some implement, devise, or simply bodyweight as a resistance can enhance some physical characteristics like strength or muscular endurance.

Specificity- A principle of training that establishes a particular kind of activity for each component of physical fitness.

Time- A principle of training that establishes the amount of time for each exercise period.

Vigorous physical activity- Vigorous-intensity physical activity generally requires sustained, rhythmic movements and refers to a level of effort a healthy individual might expend while jogging, participating in high- impact aerobic dancing, swimming continuous laps, or bicycling uphill, for example. Vigorous intensity physical activity should increase heart and breathing rates.

Warm-up exercises- Low intensity exercises that prepare the muscular/skeletal system and heart and lungs(cardiorespiratory system) for the hard work to follow.

Weight-bearing activities- Any activity in which one's feet and legs carry their own weight. Examples include walking, running, tennis, aerobic dancing.