# *Physical Fitness and You*

Chapter 3 Lesson 1

# *What is Physical Fitness*

- Definition: *The ability to carry out daily tasks easily and having enough reserve energy to respond to unexpected demands.*
- Physical Fitness consists of the following five components: *body composition, flexibility, muscular strength, muscular endurance, and cardiorespiratory endurance.*

# *Benefits of Physical Fitness*

- Your level of fitness effects all aspects of your health, physical, social, and mental emotional. Physical fitness has many benefits including the following:
- **Physical Health**
- Reduces your chances of acquiring diseases such as cardiovascular disease and obesity.
- Allows you to be more active and capable at any age
- Gives you higher energy levels for longer periods.
- Improves your posture

# *Benefits of Physical Fitness cont.*

- **Mental and Emotional Health**
- Makes you intellectually more productive
- Provides relief from stress
- Helps control depression
- Gives you a sense of pride and accomplishment for taking care of yourself
- Contributes to positive self-esteem because you will look and feel better about yourself.
- **Social Health**
- Reduces stress that can interfere with good relationships
- Gives you the opportunity to interact and cooperate with others
- Builds self confidence making you better able to adapt to social situations

# *Basic Components of Physical Fitness*

- **Body Composition-** *the ration of body fat to lean body tissue, including muscle, bone, water, and connective tissue such as ligaments, cartilage, and tendons.*
- **Flexibility-** *the ability to move a body part through a full range of motion.*
- **Muscular Strength-** *the amount of force a muscle can exert.*
- **Muscular Endurance-** *the ability of the muscles to perform difficult physical tasks over a period of time without causing fatigue.*
- **Cardiorespiratory Endurance-** *the ability of the heart, lungs, and blood vessels to send fuel and oxygen to the body's tissues during long periods of physical activity.*

# *Measuring Body Composition*

- **Skin Fold Test**- using an instrument called a skin fold caliper the skin and underlying fat tissue in the upper arm and calf are pinched to record the percentage of body fat. Males with 25% or more body fat and females with 30% or more body fat are said to be at risk for developing cardiovascular problems. (Very rough/inaccurate)

  **Underwater Weight Test-** an individual will first exhale all air in the lungs and then sit on a scale completely submerged underwater for a period of roughly 5 seconds. They will then subtract their weight underwater from what they weigh outside of water to determine body fat percentage. (moderately accurate)

  **Body Impedance-** electrodes are attached to both the hands and feet sending current through the body which then electronically determines percentage of body fat. This device is most widely used now in doctors offices and is considered the most accurate.

# *Measuring Flexibility*

- Flexibility is important because it helps you reduce muscle strains and lower back problems. The are a number of different stretching exercises you may do to stretch almost every skeletal muscle in your body. There is only one standard test for flexibility called the sit and reach test.
- The sit and reach test requires an individual to sit on the floor with legs together and extended in front of the body while both feet are flat against a box. On top of the box is a 3 foot measure in inches extending beyond the level of the feet. An individual will reach as far as possible and a number will be recorded in correlation to how far the person was able to reach. This number is used to determine an individuals overall flexibility.

# *Measuring Muscular Strength*

- Muscular strength is vital to activities involving lifting, pushing, and jumping. When you have good muscular strength you are able to conserve energy and perform daily tasks more efficiently.
- Because the body has many different muscle groups there are various exercises that can be done to determine body strength. Two of the most widely accepted tests are push-ups for upper body strength, and curl-ups which measure abdominal strength.

# *Measuring Muscular Endurance*

- If you are in the healthy range for doing push-ups and curl-ups, you should have good muscular endurance. While muscular strength deals more with ones ability to move heavy objects for a minimal number of repetitions, muscular endurance is the ability to move minimal weight for a high number of repetitions.

# *Measuring Cardio-respiratory Endurance*

- If you can run a mile or walk all day without becoming overly tired, you have adequate cardio-respiratory endurance. One way to measure cardio-respiratory endurance is to find your pulse recovery rate.
- Step Test- stand next to a platform 12 inches high and consistently step up and down alternating feet at a rate of 24 steps per minute for 3 minutes. Then find your pulse on your wrist and count the number of heartbeats in 1 minute. Use the scoring chart on the next slide to determine your Cardio-respiratory endurance.

# Scoring Chart

| Number of Heartbeats | Rating |
| --- | --- |
| 85-95 | Excellent |
| 96-105 | Good |
| 106-125 | Fair |
| 125 or more | Needs Improvement |

# *Discussion*

- What sports or activities require more muscular strength than muscular endurance?
- List some specific jobs that require varying degrees of muscular strength and/or endurance.