

# Exercise and Fitness

## Chapter 3 Lesson 2

# Benefits of Physical Health

- Exercise improves the physical part of your Health by building a strong body. Exercise can also help reduce the feeling of chronic fatigue, stiffness, and improve your motor response. In addition exercise improves your body's immune system and contributes to the functioning of your immune system, circulatory system, and respiratory system.

# Benefits cont.

- **Nervous System**- Exercise can improve your reaction time by helping you respond more quickly to stimuli. This is especially helpful when driving or cycling.
- **Circulatory System**- Regular exercise strengthens the heart to pump blood more efficiently, so that more work can be done with less effort.
- **Respiratory System**- With regular exercise your respiratory system begins to work more slowly and efficiently so that you take fewer more efficient breaths. Your lung capacity increases meaning you do not lose your breath as quickly when running.

# Exercise and Weight Control

- One out of every three adults and one out of every five children in the US are overweight or obese. This situation can be traced to overeating and a sedentary lifestyle- *a way of life that requires little movement or exercise.*

# Metabolism

- The problem of overweight is related to two concepts:
- Metabolism- *the process by which your body gets energy from food*
- Basal Metabolism- *the minimum amount of energy required to maintain the life processes of the body.*
- You get energy from food, and the energy value of food is measured in units of heat called *calories*. Your body requires a minimum number of calories each day to maintain itself. Any additional unused calories will be stored as body fat.
- Your metabolic rate increases when you exercise, meaning you burn more calories than when resting. The number of calories you burn during exercise depends on the nature of the activity.

# Weight

- Dieting, weight reduction, obesity, and exercise will be discussed more thoroughly throughout the course of the semester. For now you need to have a basic understanding of the following:
- If you take in fewer calories than you burn, you lose weight
- If you take in more calories than you burn, you gain weight.
- One pound of body fat equals 3,500 calories. In order to lose one pound of body fat a week without exercise you must eliminate 3,500 calories from your diet. By incorporating exercise into your daily regime you will increase your metabolic rate and burn calories more quickly while also increasing your overall health.

# Benefits of Mental and Emotional Health

- Exercise can contribute to mental health by helping to reduce emotional stress. Exercise can help you relax tense muscles and sleep better. Exercise increases creativity by releasing body chemicals that stimulate the body's creativity centers.
- Exercise can be a healthy outlet for tension, anger, and frustration. Being physically fit gives you a sense of pride and accomplishment. Getting fit and staying fit contributes to a positive self-esteem because you will look and feel better about yourself.

# Benefits of Social Health

- Exercise can improve your social health since in most cases working out is performed in a social atmosphere.
- Swimming laps at a pool, hiking, being a member of a school or recreational sports team are all activities that help build camaraderie.
- Following a fitness or exercise routine with someone else with a similar fitness profile can help motivate a person to continue an exercise program.

# Improving Cardio-respiratory Endurance

- All exercise falls into one of two categories. Aerobic, and Anaerobic exercise.
- Aerobic Exercise- *vigorous activity in which oxygen is continually taken in for a period of at least 20 minutes.*
- Examples: jogging, biking, swimming, dancing.
- Anaerobic Exercise- *involves intense bursts of activity in which the muscles work so hard that they produce energy without using oxygen.*
- Examples: 100-meter dash, weightlifting, calisthenics.

# Resistance Training

- Three main types of resistance training exercises:
- **Isometric Exercise**- *activity that uses muscle tension to improve muscular strength with little or no movement of the body part.*
- Example: pushing the palms of your hands together in front of you
- **Isotonic Exercise**- *activity that combines muscle contraction with repeated movement.*
- Example: push-ups, pull-ups, lifting weights
- **Isokinetic Exercise**- *activity that involves resistance through an entire range of motion.*
- Example: pushing or pulling against a lever on exercise equipment