

## PHYSICAL FITNESS

**Physical Fitness** – ability of body systems including muscles, skeleton and heart, to work together efficiently  
- it is hard to reach this level but you will have more energy to enjoy life with

**Total Fitness** - more than just physical fitness and exercise  
- whole person including physical, mental, social and emotional fitness  
- includes dental, nutrition, relaxation and sleep  
- each is dependent and related to the other

### **Benefits of Physical Fitness**

1. Improved Appearance – improved physical appearance will help self-esteem
2. Improved Self-control – possibly experience less stress and depression
3. Enjoy Life – will appreciate things around you and want to do things
4. Increased Level of Energy – will be well rested and actively doing things
5. Improved Physical Performance – play longer, better skill, more success
6. Increased Work Production – school or work production/alertness improves
7. Sleep Better – will be more relaxed to fall asleep faster and sleep better
8. Increased Life Expectancy – if the body's systems are cared for, they will last longer

### **Health Risk Factors**

1. Inactivity – will encounter more heart problems and diseases eliminated with exercise
2. Obesity – puts extra strain on the body's systems as well as one's social and mental health
3. High Blood Pressure & Cholesterol – will lead to heart and circulatory problems
4. Stress – needs to be relieved positively to avoid negative effects
5. Smoking – a negative habit that is 100% within your control
6. Heredity – family history can increase your risk of certain diseases
7. Age – the older you get the more at risk you are for certain diseases

### **The 11 Parts of Physical Fitness**

#### A. Health Related

1. cardiovascular fitness - ability to exercise entire body for long periods of time
2. strength - amount of force your muscles produce
3. muscular endurance - ability to use muscles many times without tiring
4. flexibility - ability to use joints through full range of motion
5. body fat – ratio of body fat compared to muscles, bone and other body tissues

#### B. Skill Related

6. agility - ability to change position of body quickly and control body's movement  
- wrestlers, divers, soccer players
7. balance - ability to keep upright posture while standing or moving  
- gymnastics, ice skating
8. coordination – integration of eye, hand, and foot movements  
- striking in baseball, golf, and tennis, kicking in soccer
9. power - ability to use strength quickly  
- shot put, discus, high jump, football, swimming
10. reaction time - amount of time it takes you to move once you realize you should  
- track, swimming, karate
11. speed - ability to cover a distance or perform a movement in a short period of time  
- run, throw, hit

### **Planning a Program**

#### A. Be medically prepared

1. schools and employers require physicals to see if you are disease free

2. before starting a program of vigorous exercise people over the age of 30 should have an exercise stress test
  3. undergo a fitness evaluation that test all of the Health Related Fitness Components
- B. Be smart
1. warm-up the heart and muscles before vigorous exercise
  2. start slowly - don't do too much too soon
  3. purchase proper and necessary equipment
  4. learn proper exercises and movements
  5. COOL-DOWN similar to how you did your warm-up
- C. Be aware of injuries
1. common - strains, sprains, blisters, bruises, fractures, dislocations, cuts
  2. overuse - from doing more exercise than used to like tendonitis

### The 3 Principles of Exercise

1. Overload - an increase in exercise or exercising more than you normally do
2. Progression - increasing exercise gradually
  - as your body adapts to your exercise load, increase your exercise slightly to a new level
  - a. threshold of training - minimum amount of overload to build fitness
  - b. target ceiling - maximum amount of exercise
  - c. target fitness zone - between threshold and ceiling
3. Specificity - doing specific activities to build specific parts of fitness

### The FIT Formula (ways to achieve the overload principle)

Frequency - how often you exercise, at least 3 sessions a week

Intensity - how hard you exercise, not too easy or hard

Time - how long you exercise, 15 minutes minimum

### Calculating Target Heart Rate Zone

Step 1  $220 - \text{age} = \text{Maximum Heart Rate (MHR)}$

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Step 2  $\text{MHR} - \text{Resting Heart Rate (RHR)}$

Step 2  $\text{MHR} - \text{RHR}$

Step 3 multiply by 60% (.6)

Step 3 multiply by 85% (.85)

Step 4 add RHR

Step 4 add RHR

Equals Lower Heart Rate Zone limit

Equals Upper Heart Rate Limit

\*\*When working out aerobically, the individual needs to keep heart rate within the calculated limits for the recommended time to achieve maximum health benefits.