

# Module XIX – Nutrition & Exercise

## A. Introduction

### 1. *Benefits of physical activity*

#### *a. Improved*

- 1) mental outlook and capacity
- 2) self-image
- 3) self-confidence

#### *b. Increased*

- 1) lean body mass (decreased body fat)
- 2) bone mass
- 3) heart, lung and muscle function

#### *c. Reduced risk for*

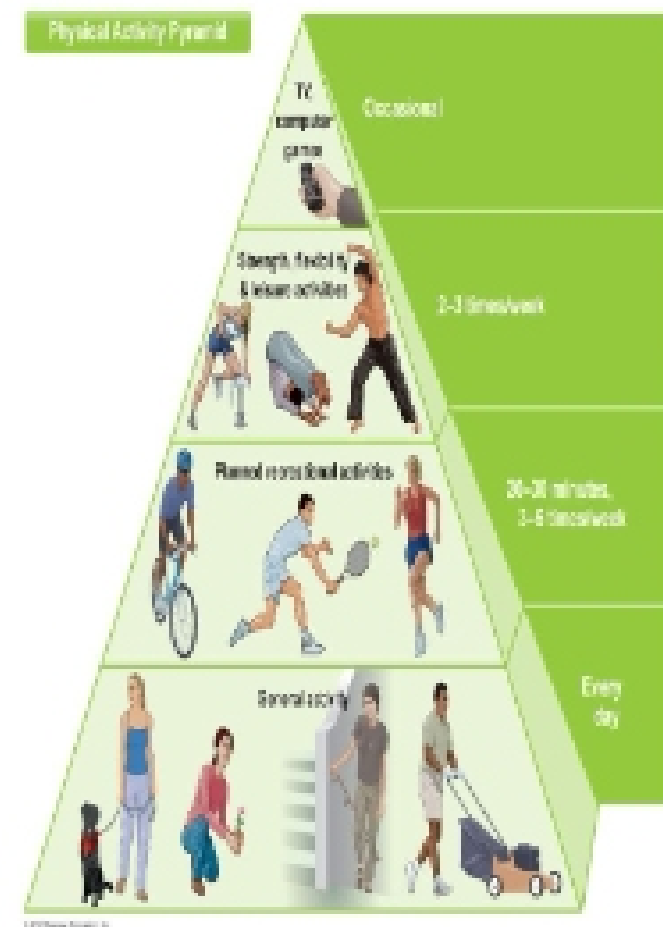
- 1) CVD (higher HDL, Lower LDL)
- 2) Hypertension
- 3) Diabetes
- 4) Cancer



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## 2. Components of fitness

- a. **Flexibility**
- b. **Strength**
- c. **Muscle endurance**  
**Increased muscle function due to an increase in muscle mass**
- d. **Cardiovascular endurance**  
**Ability to utilize oxygen**



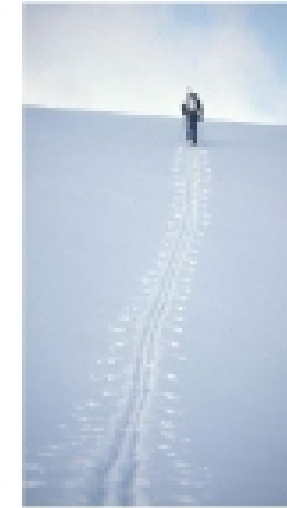
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## B. Metabolism

### 1. *Aerobic vs. Anaerobic*

#### a. *Anaerobic*

- 1) Energy production does not need oxygen, but lactate can build up
- 2) Increases muscle strength and mass



#### b. *Aerobic*

- 1) Uses oxygen for complete metabolism to CO<sub>2</sub>
- 2) Used for fatty acid oxidation
- 3) Increases cardiovascular fitness

