

## BODY COMPOSITION

### Body composition:

Measurement used to describe the percentages of fat, bone and muscle in human bodies.

- Fat weight- fat stored in fat cells around the body.
- Lean weight- all other tissues (organs, bones, blood, skin, and muscle)
- Approximately half of lean weight is muscle.
- As we age, 5 pounds of muscle loss, 15 pounds of fat gain each decade.

### Recommendations

- Healthy adult male 13-17% body fat
- Healthy adult female 20-21% body fat
- Male athlete 7-19% body fat
- Female athlete 10-25%

### Measuring Body Composition

- *Measurement calipers* (measure thickness of subcutaneous fat)
- *Bioelectrical impedance device* (resistance of electrical flow to estimate fat)
- *Water weighing* (underwater scale compares fat to lean)

### Body Mass Index:

Is a number calculated from a person's weight and height.

- Reliable indicator of fatness
- Used to screen for weight problems that may lead to health problems
- Body mass index does not measure specific body fat
- Highly trained athletes may have high BMI number (high muscle %)

### Adult Scale (age 20 and over)

Below 18.5= underweight

18.5-24.9 = normal

25.0-29.9 = overweight

30- above = obese

### Children Scale (age 2-19)

Less than 5<sup>th</sup> percentile= underweight

5<sup>th</sup> percentile up to 85<sup>th</sup>= healthy weight

85<sup>th</sup> percentile to 95<sup>th</sup> = overweight

Greater than 95<sup>th</sup> percentile= obese