

CONCEPT: BODY COMPOSITION

- ◆ Ratio of _____ tissue to lean _____ in a human body.
 - Healthy body fat percentages: women _____% and men _____%.

Essential Fat

Fat necessary for normal body functions.

- ◆ Distribution of fat is also a health indicator.
 - Fat accumulation around abdomen carries a _____ risk than around hips and thighs.
 - Waist measurements associated with higher risk of chronic disease:

Women: > _____ in Men: > _____ in

Body Mass Index (BMI)

- ◆ **BMI:** measure of body weight relative to _____ and is correlated to amount of body fat.
 - Calculated using the following equations:

BMI Classification	
BMI	Weight Classification
< 18.5	Underweight
18.5 - 24.9	Healthy
25 - 29.9	Overweight
30 - 34.9	Obesity ____
35 - 39.9	Obesity ____
40+	Obesity ____

$$\text{BMI} = \frac{\text{weight in kg}}{(\text{height in m})^2}$$

OR

$$\text{BMI} = \left[\frac{\text{weight in lbs}}{(\text{height in inch})^2} \right] \times \underline{\hspace{1cm}}$$

- **Limitations:** does not consider age, sex and varying levels of _____ mass.

EXAMPLE


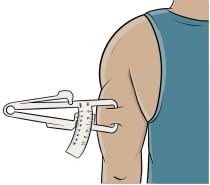


Zuri calculated their body mass index to be 31.2. Which classification does this fall under?

- | | | |
|--------------------|----------------|----------------------|
| a) Obesity class I | c) Healthy | e) Obesity class III |
| b) Overweight | d) Underweight | f) Obesity class II |

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Clinical Methods

◆ More _____ measurements of body fat commonly used in medical and professional settings.

Clinical Methods			
Bioelectrical Impedance Analysis (BIA)		Skinfolds	
	<ul style="list-style-type: none">▸ Low _____ current sent through the body.- Measures rate of electricity conducted through water.		<ul style="list-style-type: none">▸ Skin folds measured with a specialized _____.
Underwater (hydrostatic) Weighing		Bod Pod	
	<ul style="list-style-type: none">▸ Uses _____ displacement to measure body density.		<ul style="list-style-type: none">▸ Uses _____ displacement to measure body density.

EXAMPLE

Brittany is on a weight loss journey and her gym offers their members access to a device that estimates body fat percentage which she uses to track her progress. It involves sending very weak electrical current through her body with electrodes. Which body composition method is Brittany using?

- | | |
|-------------------------|--------------------------------|
| a) Hydrostatic Weighing | d) Thermoelectrical Resistance |
| b) Bod Pod | e) BIA |
| c) BMI | f) Skinfolds |

CONCEPT: BODY COMPOSITION

PRACTICE

Omar is a defenseman on a hockey team and has to train hard to target his strength, speed and balance. If he weighs 202 pounds and is 6'2" tall, calculate his BMI and suggest his likely body composition.

- a) Omar's weight falls under obesity.
- b) Omar is overweight.
- c) Omar has a healthy body weight.
- d) Omar is underweight.

PRACTICE

Miranda, who is a 34 year old woman, measured her waist circumference and recorded it as 40 inches. Select the correct option.

- a) Miranda is at a high risk of developing a metabolic disease such as type 2 diabetes.
- b) Miranda is not at risk for any health conditions.
- c) Miranda is at optimum health and weight.
- d) Miranda is at low risk for chronic diseases.

PRACTICE

A person with a high waist circumference to hip ratio:

- a) Is at a lower risk of bone fractures from trauma.
- b) Has more excess fat stored around hips than abdomen.
- c) Is at a higher risk of cardiovascular disease and diabetes.
- d) Is most likely at low risk of chronic and metabolic diseases.