

Quiz 8

Name: _____

1. What is BMI (Body Mass Index) and what does it depend on?

Weight / Height² It only depends on weight and height. It is a statistical indicator based on the average body type of appropriate weight (underweight, healthy, over weight or obese)

2. What does it mean if a person's BMI is high or low?

It is an indication that they could have a % body fat that is too low or too high. But it's only an indicator it is not a measure. A person should have a body fat % measurement done to verify the BMI.

3. What is percent body fat?

This is the ratio of body fat to lean body mass. Lean mass includes bones, muscle and fluids.

4. What does it mean if a person's body fat is too high or too low?

Too low means they will burn muscle between meals which is not healthy. For women once the body fat falls below a certain threshold their reproductive system shuts down. Body fat that is too high puts strain on your heart and increases the risk of many diseases including cancer.

5. What can a person do to lose weight?

Eat less calories than they burn.

6. If a person eats the same amount of calories and exercises the same but changes the type of food they eat, can they gain or lose weight?

a. For example what if they eat more protein and less carbs (same calories)?

No because only the calories matter.

b. Or what if they eat all sugar and fat (same calories)?

No because only the calories matter.

7. Consider Heart Strength and Heart Strain.

a. What Factors make a heart stronger?

Regular aerobic exercise.

b. What makes it weaker?

A lack of exercise makes your heart weaker similar to any unused muscle in your body.

c. What factors put strain on your heart?

High percent body fat or extremely low percent body fat. High body fat causes your heart to work very hard to supply the large body and to transport the large body. Very low body fat means you're very likely to have to burn muscle (including the muscle

of the heart) to survive. You can also strain your heart by smoking, getting older, and high blood pressure.

d. **What can be done to reduce the strain on your heart?**

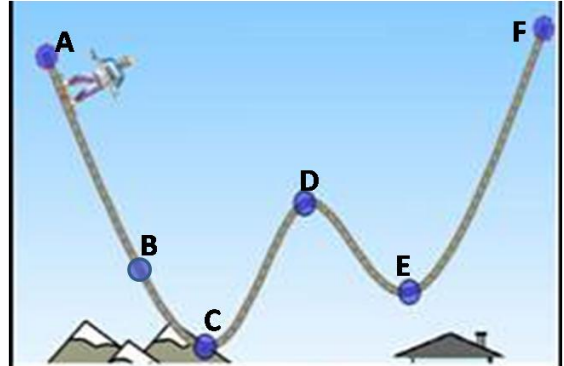
Keep your % body fat low but not dangerously low!

8. **Where is the Skater's kinetic energy the greatest? Why?**

At point C, because kinetic energy is the energy of motion. His lowest point is where he'll be moving the fastest so have the most kinetic energy.

9. **If there is no friction, will the skater get all the way to point F? Why?**

No he cannot because he's starting lower than point F. He can only rise to a point as high as he started, he cannot gain energy.



10. **When you lose 15 lbs, how does the majority of the mass leave your body?**

Mass leaves our bodies in several ways. The largest fraction is exhaled as Carbon. This is similar to plants which use photosynthesis to take in Carbon dioxide, keep the Carbon to create sugars and release the oxygen back into the air.