Chapter 10: Study Guide

- Overweight
- Obesity
- Body mass index (BMI)
- Fat-free mass
- Total body fat
- Adipose cell
- Underwater weighing
- Dual-energy x-ray absorptiometry (DXA)
- Air displacement
- Bioelectrical impedance
- Skinfold thickness measurements
- Energy
- Energy intake
- Adenosine triphosphate
- Energy output
- Basal metabolism
- Resting metabolic rate (RMR)
- Thyroid hormone
- Thermic effect of food (TEF)
- Nonexercise activity thermogenesis (NEAT)
- Energy Equilibrium
- Negative energy balance
- Positive energy balance
- Central body obesity
- Hunger
- Satiety
- Ghrelin
- Leptin
- Set point theory
- Appetite
- Bariatric medicine
- Liposuction
- Fad
- Underweight
- Eating disorders
- Anorexia nervosa (AN)
- Bulimia nervosa
- Female athlete triad

Concept Questions:

1. Which tissues comprise total body fat and which comprise fat-free mass?
2. Discuss conditions in which fat cells can increase in size and number.
3. Why is it necessary to have some body fat?
4. List three roles for subcutaneous fat.
5. What is visceral fat?
6. What is cellulite?
7. Describe at least two differences between brown fat tissues and white fat tissue.
8. Describe three different methods of measuring body fat, including drawbacks of each method.
9. Explain why a healthy woman has more body fat than a healthy man.
10. A young man’s body is 13% fat. According to information in Table 10.1, is he overweight, obese, or healthy?
11. Using the “rule of thumb” formula, estimate the daily basal metabolic energy needs of a woman who weighs 185 pounds.
12. List the four major ways the body uses the most energy on a daily basis.
13. For most people, which form of energy expenditure uses the most energy on a daily basis?
14. Discuss at least five factors that influence basal metabolic rate.
15. Of the four major ways the body uses energy, which one is most easily altered?
16. Explain the differences between TEF and energy needs for physical activity.
17. What is NEAT? List at least three ways the body expends energy by NEAT.
18. What happens to a person’s body weight when he or she is in a state of positive energy balance?
19. When is it desirable for a person to be in a positive energy balance state?
20. When is a person in a negative energy balance state?
21. A young woman’s BMI is 26.2. According to this information, is this woman likely to be healthy, overweight, obese, or extremely obese?
22. List at least six different serious health problems that are associated with having too much body fat and being obese in particular.
23. What is the “stigma” of obesity?
24. Which of the two major types of body fat distribution is more likely to pose serious health risks? Which chronic diseases are more likely to develop in people who have this pattern of excess fat deposition?
25. What is a quick and easy way to determine whether a person’s body fat distribution is likely to result in serious health problems, such as type 2 diabetes?
26. What is hunger? What is satiety?
27. Discuss the roles of leptin and ghrelin in regulating hunger.
28. Under what conditions would having “thrifty genes” benefit a person?
29. What is the set-point theory?
30. What is the difference between hunger and appetite?
31. Describe how the environment influences a person’s food intake and physical activity level.
32. Provide at least three examples of ways that socioeconomic, psychological, and societal factors can influence eating behavior.
33. What are the four key elements that are necessary for weight loss and maintenance?
34. List at least six features of reliable weight-loss plans or programs.
35. What questions would it be wise for consumers to have answered before they join a weight-loss group or plan?
36. List at least three steps that members of the National Weight Control Registry often take to maintain their reduced body weights.
37. Explain how orlistat (Xenical) can aid weight-loss efforts.
38. Describe the two most common types of bariatric surgery in the United States. Why is bariatric surgery effective? Compared to gastric stapling procedures, what is a major advantage of gastric banding?
39. What is liposuction? List three risks associated with this procedure.
40. What is a “fad” diet? List at least four typical features of fad diets.
41. Why do fad diets and dietary supplements promoted for weight loss appeal to overfat people?
42. Identify at least four popular weight-loss supplements and indicate whether each supplement is safe and effective.
43. Discuss at least three features or claims that are commonly used in ads for weight-loss products or services.
44. List at least three health conditions that are often associated with underweight.
45. Discuss at least three measures an underweight person can take to gain lean mass safely.