

## 8.1 Carbohydrates, Fats, and Proteins

1. Food supplies your body with \_\_\_\_\_, substances that the body needs to regulate bodily functions, promote growth, repair body tissues, and obtain energy.
2. Six classes of nutrients
  - a. Carbohydrates
  - b. Fats
  - c. Vitamins
  - d. Proteins
  - e.
  - f.
3. \_\_\_\_\_, \_\_\_\_\_, and fats can all be used by the body as sources of energy.
4. The foods you eat are your body's \_\_\_\_\_.
5. \_\_\_\_\_ is the chemical process by which your body breaks down food to release this energy.
  - a. Metabolism also involves the use of this energy for \_\_\_\_\_ and repair of body \_\_\_\_\_.
6. The amount of energy released when nutrients are broken down is measured in units called \_\_\_\_\_.
7. \_\_\_\_\_ supply energy for your body's functions.
8. Simple carbohydrates are also known as \_\_\_\_\_.
9. \_\_\_\_\_ carbohydrates are made up of sugars that are linked together chemically to form long chains.
10. \_\_\_\_\_ is a type of complex carbohydrate that is found in plants.
  - a. High fiber diet
    - i. Helps prevent constipation
    - ii.
    - iii. May help prevent heart disease
11. The extra glucose is converted into a type of starch called \_\_\_\_\_.
12. It is better to eat foods rich in \_\_\_\_\_ carbohydrates rather than simple \_\_\_\_\_.
13. Fats are made of \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.
  - a. Fats supply your body with...
    - i. Energy
    - ii. Form your cells
    - iii.
    - iv. Protect your nerves
14. \_\_\_\_\_ have at least one unsaturated bond in a place where hydrogen can be added to the molecule
15. Fats that have all the hydrogen the carbon atoms can hold are called \_\_\_\_\_.
16. Too much saturated fat in your diet can lead to \_\_\_\_\_.

17. Nutritionists recommend that \_\_\_\_ to \_\_\_\_ percent of your calories come from fat, primarily unsaturated fat.
18. \_\_\_\_\_ is a waxy, fatlike substance that is found only in \_\_\_\_\_.
- a. Cholesterol helps the body to...
    - i. Make cell membranes and nerve tissue
    - ii.
    - iii. Substances that aid in the digestion of fat
19. \_\_\_\_\_ are made when manufacturers add hydrogen to the fat molecules in vegetable oils.
20. Trans-fat are found in margarine, \_\_\_\_\_, and commercially baked goods.
21. Proteins can serve as a source of \_\_\_\_\_.
22. The most important function of proteins is their role in the \_\_\_\_\_ and \_\_\_\_\_ of your body's tissues.
23. Proteins are long chains of smaller "links" that bound together \_\_\_\_\_.
24. The smaller substances are known as \_\_\_\_\_.
25. The nine amino acids that the body cannot manufacture are called \_\_\_\_\_.
26. Protein from animal sources is \_\_\_\_\_.
- a. It contains all nine essential amino acids
27. Most protein from plant sources is \_\_\_\_\_.
28. Nutritionists recommend that \_\_\_\_ to \_\_\_\_ percent of your calories come from proteins.

## 8.2 Vitamins, Minerals, and Water

29. One of the first discoveries of the importance of vitamins came in the 1700's by a Scottish doctor named \_\_\_\_\_.
30. Nutrients that are made by living things are required only in small amounts, and that assist many chemical reactions in the body are \_\_\_\_\_.
- a. Fat-Soluble Vitamins
    - i. Fat-soluble vitamins can be \_\_\_\_\_ by the body.
    - ii. Vitamins \_\_\_\_, \_\_\_\_, \_\_\_\_, and \_\_\_\_ are fat soluble vitamins.
    - iii. Sources of fat-soluble vitamins are
      1. Vegetable oils
      2. Liver
      - 3.
      4. Certain vegetables
  - b. Water-Soluble Vitamins
    - i. Water-soluble vitamins cannot be stored by the body.
    - ii. Examples of water-soluble vitamins are \_\_\_\_ and all of the \_\_\_\_ vitamins
    - iii. Sources of water-soluble vitamins are
      1. Fruits
      2. Vegetables
      3. Whole-Grain Foods

4. And many other foods

31. Vitamins called \_\_\_\_\_ help protect healthy cells from the damage caused by the normal aging process as well as from certain types of cancer.
- Vitamin \_\_\_\_ and \_\_\_\_ are two of the most powerful antioxidants.
32. Your body requires only small amounts of \_\_\_\_\_, which are nutrients that occur naturally in rocks and soil.
33. \_\_\_\_\_ is important in blood clotting and the functioning of your nervous system.
- A lack of calcium can sometimes lead to \_\_\_\_\_, a condition in which the bones gradually weaken.
34. \_\_\_\_\_ and \_\_\_\_\_ work together to maintain water balance in the body.
35. \_\_\_\_\_ is necessary for healthy red blood cells.
- If a person's diet does not include enough iron, he or she may develop \_\_\_\_\_, a condition in which the red blood cells do not contain enough hemoglobin.
36. Sodium is important in several body processes, including the functioning of the \_\_\_\_\_ and \_\_\_\_\_ balance.
37. Too much sodium can cause a problem with \_\_\_\_\_.
38. An excess, or overdose, of vitamins or minerals may damage your \_\_\_\_\_.
39. About \_\_\_\_ % of your body weight is water.
- Nearly all of the body's chemical reactions, including those that produce energy and build new tissues, take place in a \_\_\_\_\_ solution.
40. \_\_\_\_\_ is the process of maintaining a steady state inside your body.
- Water contains dissolved substances called \_\_\_\_\_ that regulate many processes in your cells.
41. \_\_\_\_\_ is a serious reduction in the body's water content.
- Symptoms include weakness, rapid breathing, and a weak \_\_\_\_\_.
42. Every day, you need at least ten \_\_\_\_-ounce cups of water if you are a female 14-18 years old.
43. Males in the same age group need \_\_\_\_ cups of water per day.
44. A sports drink is not necessary if you exercise for \_\_\_\_ minutes or less.

### 8.3 Guidelines for Healthful Eating

45. The \_\_\_\_\_ for Americans is a document developed by nutrition experts to promote health.
- Make Smart Food Choices
    - Choose a \_\_\_\_\_ of foods.
    - Include plenty of whole-grain foods, vegetables, and \_\_\_\_\_.
    - Choose low-fat or nonfat milk and milk products.
  - Balance food and physical activity
    - Maintaining a healthy weight is a matter of balancing the \_\_\_\_\_ you take in with how active you are

- c. Get the most nutrition out of your calories
    - i. Choose foods that are \_\_\_\_\_ - \_\_\_\_\_.
    - ii. Nutrient-dense foods contain lots of vitamins and minerals relative to the number of calories.
  - d. Handle food safely
46. Make half the grains you eat \_\_\_\_\_ grains. Whole grains contain the entire grain kernel — the bran, germ, and endosperm.
- a. Examples
    - i. Whole-Wheat, rye, pita, rolls, or tortillas
    - ii. Macaroni, spaghetti, rice noodles
47. Vegetables
- a. Dark green vegetables: \_\_\_\_\_, kale, mustard, or collard green
  - b. Orange vegetables: carrots, \_\_\_\_\_, sweet potatoes
  - c. Dry beans and peas
  - d. Starchy vegetables: potatoes, \_\_\_\_\_, lima beans
48. Fruits
- a. Apples, bananas, mangoes, oranges, papayas, grapes, and \_\_\_\_\_.
  - b. Limit your fruit juices
49. Oils-consume most of your fats from fish, nuts, and vegetable oils.
50. Dairy
- a. Milk, yogurt, or \_\_\_\_\_.
51. Protein
- a. Choose low-fat or lean meats and poultry.
  - b. Vary your protein by choosing
    - i. Fish, nuts, \_\_\_\_\_
52. Using the Food Guidelines
- a. Don't skip breakfast. Choose whole-grain cereals, low-fat milk or yogurt, and fruit.
  - b. Lunch-Focus on whole grains, fruits, and \_\_\_\_\_.
  - c. Dinner-Trim excess fat from meats. Instead of fried meats or fish, try them \_\_\_\_\_.
53. Snacks
- a. Try satisfying your sweet tooth with \_\_\_\_\_ instead of cookies.
  - b. Make a whole-wheat bagel, not a donut, your after-school treat.
54. Eating Out
- a. Substitute low-fat milk, water, or fruit juice for \_\_\_\_\_ and \_\_\_\_\_.
  - b. Select the \_\_\_\_\_ in place of fries or onion rings. But go easy on dressing dressings, cheese, bacon bits, and croutons.
  - c. Choose a \_\_\_\_\_ chicken sandwich instead of a burger.