

Chapter 1 - Food Choices and Human Health

1. Malnutrition includes deficiencies, imbalances, and excesses of nutrients, alone or in combination, any of which can take a toll on health over time.

- a. True
- b. False

ANSWER: True

2. Chronic diseases such as heart disease and diabetes can be prevented solely by consuming a healthy diet through the lifespan.

- a. True
- b. False

ANSWER: False

3. The two most influential lifestyle factors that alter an individual's risk for developing a serious disease are nutrition and tobacco usage.

- a. True
- b. False

ANSWER: False

4. The human genome is 99.9% the same in all people.

- a. True
- b. False

ANSWER: True

5. Elemental diets help patients recover from nutrient deficiencies, infections, and wounds.

- a. True
- b. False

ANSWER: True

6. A whole, basic food becomes less nutritious when it is enriched or fortified.

- a. True
- b. False

ANSWER: False

7. Functional foods contain bioactive food components believed to provide health benefits beyond the benefits their nutrient content confers.

- a. True
- b. False

ANSWER: True

8. Foods that are associated with particular cultural subgroups within a population are called ethnic foods.

- a. True
- b. False

ANSWER: True

9. For a new finding to be accepted, the finding must be found repeatedly in various types of well-designed, unbiased

Chapter 1 - Food Choices and Human Health

studies that different researchers perform.

- a. True
- b. False

ANSWER: True

10. Fiber is not considered an essential nutrient.

- a. True
- b. False

ANSWER: True

11. A dietitian's ability to consider variations in a client's genome to more precisely meet an individual's nutrient needs in the future is called genomics.

- a. True
- b. False

ANSWER: False

12. The energy that you gain when you eat a bowl of strawberries comes from mechanical energy that the berries stored while growing.

- a. True
- b. False

ANSWER: False

13. Government agencies and professional associations are usually reliable sources of health and nutrition information for consumers.

- a. True
- b. False

ANSWER: True

14. Which of the following conditions is the most responsive to dietary changes?

- a. Osteoporosis
- b. Down syndrome
- c. Cancer
- d. Diabetes
- e. Iron-deficiency anemia

ANSWER: e

15. Which of the following diseases is responsible for the highest percentage of deaths in the United States?

- a. Alzheimer's disease
- b. Cancer
- c. Chronic lung disease
- d. Diabetes
- e. Heart disease

ANSWER: e

Chapter 1 - Food Choices and Human Health

16. The development of chronic diseases that have a connection to poor diet can be:

- a. completely prevented by following a healthy diet.
- b. unaffected by lifestyle choices.
- c. unaffected by genetics.
- d. completely prevented by altering genes.
- e. prevented or improved by making healthy food and lifestyle choices.

ANSWER:

e

17. Which of the following is not a controllable lifestyle factor that influences disease risk?

- a. Diet
- b. Sleep
- c. Smoking
- d. Genetics
- e. Physical activity

ANSWER:

d

18. Which of the following is not an affect that regular physical activity has on the body?

- a. Decreased bone density
- b. Reduced risk of cardiovascular diseases
- c. Faster wound healing
- d. Increased lean body tissue
- e. Improved mental functioning

ANSWER:

a

19. Which of the following is NOT a correct characteristic or outcome associated with *Healthy People 2030*?

- a. The aim is to help people live long, healthy lives.
- b. Americans report being more physically activity in their free time.
- c. The objectives are updated every 10 years.
- d. Obesity rates have declined slightly.
- e. The American diet continues to be low in vegetable consumption.

ANSWER:

d

20. Which nutrient do all B vitamins contain?

- a. Calcium
- b. Cobalt
- c. Iron
- d. Nitrogen
- e. Protein

ANSWER:

d

21. Which of the following nutrients is inorganic?

- a. Minerals
- b. Fats

Chapter 1 - Food Choices and Human Health

- c. Vitamins
- d. Carbohydrates
- e. Proteins

ANSWER:

a

22. Which term is NOT an accurate descriptor of protein?

- a. Macronutrient
- b. Energy-yielding
- c. Micronutrient
- d. Essential
- e. Organic

ANSWER:

c

23. Which nutrient is needed in the greatest daily quantity?

- a. Carbohydrates
- b. Water
- c. Fats
- d. Protein
- e. Minerals

ANSWER:

b

24. Which of the following contains calories and is not considered a nutrient?

- a. Alcohol
- b. Carbohydrates
- c. Fats
- d. Protein
- e. Water

ANSWER:

a

25. Essential nutrients are:

- a. nutrients that do not cause deficiency diseases if they are omitted from the diet.
- b. necessary nutrients that the body cannot make, or make in sufficient quantities, for itself.
- c. nutrients that the body can manufacture from raw materials.
- d. nutrients that must be obtained from supplements.
- e. necessary nutrients that cannot be obtained from the diet.

ANSWER:

b

26. The most energy-rich nutrient is _____.

- a. carbohydrate
- b. fat
- c. protein
- d. water
- e. fiber

Chapter 1 - Food Choices and Human Health

ANSWER: b

27. Which of the following units is used by food scientists to measure food energy?

- a. Degrees
- b. Kilograms
- c. Grams
- d. Moles
- e. Kilocalories

ANSWER: e

28. Which of the following is a characteristic of alcohol?

- a. It is an essential nutrient.
- b. It provides water but not calories.
- c. It enhances the repair of body tissues.
- d. It is a key ingredient in dietary supplements.
- e. It provides calories.

ANSWER: e

29. Which of the following statements is true of an elemental diet?

- a. It supports life.
- b. It supports optimal growth.
- c. It supports long-term health.
- d. It enables people to thrive over long periods.
- e. It is better than real food.

ANSWER: a

30. Which nutrients provide the same number of calories per gram?

- a. Carbohydrates and fats
- b. Carbohydrates and protein
- c. Protein and fats
- d. Fats and alcohol
- e. Carbohydrates and alcohol

ANSWER: b

31. The major role of all vitamins and minerals in the human body is:

- a. to act as regulators in all body processes.
- b. to dissolve the other nutrients.
- c. to provide energy for body processes.
- d. to confer color and taste to food.
- e. to capture the sun's energy.

ANSWER: a

32. Which of the following is NOT a correct statement about phytochemicals?

Chapter 1 - Food Choices and Human Health

- a. They are found only in plant foods.
- b. They have chemical or physical properties in the body that influence disease risks.
- c. They impart color and taste to some foods.
- d. They are considered essential nutrients.
- e. They operate best in harmony with other compounds and nutrients in the body.

ANSWER:

d

33. Which of the following is an example of an ultra-processed food?

- a. A bag of baby spinach leaves that have been washed and trimmed
- b. A package of organic chocolate chip cookies
- c. A salad topped with diced tomato, sliced onion, and hard-boiled egg
- d. Pasteurized milk fortified with vitamins A and D
- e. Frozen unseasoned cauliflower rice crumbles

ANSWER:

b

34. The term “_____ foods” has no legal definition but is often used to imply wholesomeness.

- a. medical
- b. natural
- c. processed
- d. enriched
- e. functional

ANSWER:

b

35. Foods that have been subjected to the addition of additives, milling, or cooking are called _____ foods.

- a. processed
- b. medical
- c. natural
- d. organic
- e. whole

ANSWER:

a

36. Kimchi, is a regular dish served in Korea. Thus, kimchi is an example of a(n) _____ food of Korea.

- a. supplementary
- b. medical
- c. staple
- d. exotic
- e. ultra-processed

ANSWER:

c

37. Planning menus that include an assortment of foods to provide sufficient quantities of essential nutrients, fiber, and energy to maintain health and body weight is a principle known as _____.

- a. variety
- b. balance

Chapter 1 - Food Choices and Human Health

- c. moderation
- d. calorie control
- e. adequacy

ANSWER: e

38. A certain amount of fiber in foods contributes to the health of the digestive system. However, eating too much fiber leads to nutrient losses. The characteristic of diet planning illustrated by this statement is called _____.

- a. adequacy
- b. calorie control
- c. balance
- d. moderation
- e. variety

ANSWER: d

39. Which of the following is the least important factor when learning about your friend's heritage and developing cultural competence?

- a. Learning about the culture's staple foods
- b. Being willing to try new foods and styles of cooking
- c. Learning to speak the native language in the culture
- d. Learning about your friend's cultural customs, values, and beliefs
- e. Understanding and accepting cultural preferences

ANSWER: c

40. What is the best source to use to gather valid nutrition information?

- a. Online articles
- b. YouTube videos from a doctor or healthcare professional
- c. Scientific research
- d. Health magazines
- e. Testimonials from trusted influencers

ANSWER: c

41. Which type of research studies populations and is often used to search for correlations between dietary habits and disease incidence?

- a. An intervention study
- b. A laboratory study
- c. A case study
- d. An epidemiological study
- e. A placebo-controlled study

ANSWER: d

42. A controlled clinical trial is a type of _____.

- a. case study
- b. epidemiological study

Chapter 1 - Food Choices and Human Health

- c. laboratory study
- d. meta-analysis
- e. intervention study

ANSWER:

e

43. Tonya's mother is worried about her daughter's sedentary lifestyle. She wants Tonya to start walking for 20 minutes each day. Tonya does not see any reason to increase her activity since she's always been healthy. Which stage of behavior change is Tonya in?

- a. Precontemplation
- b. Contemplation
- c. Preparation
- d. Action
- e. Maintenance

ANSWER:

a

44. Which of the following characteristics applies to the maintenance stage of behavior change?

- a. Admitting that change is needed and weighing the pros and cons of changing
- b. Striving to integrate the new behavior into daily life and striving to make it permanent
- c. Concentrating mainly on the strengths of the current eating pattern
- d. Avoiding changes in daily routine and specific behavior
- e. Committing time and energy to make changes in behavior

ANSWER:

b

45. Which food group ranks highest in nutrient density?

- a. Fruits
- b. Grains
- c. Vegetables
- d. Proteins
- e. Dairy

ANSWER:

c

46. Which of the following statements is true about the effect of genetics and nutrition on chronic diseases?

- a. Individuals with the same hair color are more likely to develop the same chronic disease.
- b. Good dietary choices are sufficient to prevent the onset of all chronic diseases.
- c. The possibility of developing chronic diseases depends on genetics and lifestyle choices.
- d. Nutrition does not have any effect on the risk of developing chronic diseases.
- e. One's lifestyle does not have any effect on one's risk of developing chronic diseases.

ANSWER:

c

47. One serving of macaroni and cheese contains 330 calories, 36 grams of carbohydrate, and 17 grams of fat. How many grams of protein does one serving contain?

- a. 8 grams
- b. 15 grams

Chapter 1 - Food Choices and Human Health

- c. 33 grams
- d. 67 grams
- e. 118 grams

ANSWER: a

48. How many calories are provided by a food that contains 22 grams of carbohydrate, 9 grams of protein, and 12 grams of fat?

- a. 172
- b. 208
- c. 217
- d. 232
- e. 387

ANSWER: d

49. A bowl of soup contains 25 grams of fat and provides 470 calories per bowl. What is the percentage of calories obtained from fat in the soup?

- a. 21%
- b. 37%
- c. 48%
- d. 52%
- e. 58%

ANSWER: c

50. Which of the following is true about intravenous nutrition?

- a. It allows the digestive muscles to rest so they are stronger for when real food is reintroduced.
- b. It should be continued even when it is possible for real food to be introduced.
- c. Compared to eating food, satiety is lower since gastric muscles do not stimulate the release of hormones.
- d. It offers emotional comfort similar to real food taken by mouth.
- e. The chemical composition does not provide all essential nutrients.

ANSWER: c

51. Which food does not contain phytochemicals?

- a. An orange
- b. A banana
- c. Broccoli
- d. An egg
- e. Walnuts

ANSWER: d

52. Most yogurts contain active, live bacteria cultures that research suggests can improve an individual's gut health. Thus, yogurt is considered a(n) _____.

- a. staple
- b. functional

Chapter 1 - Food Choices and Human Health

- c. fortified
- d. medical
- e. organic

ANSWER:

b

53. Which of the following is **not** a characteristic of a nutritious diet?

- a. It ensures that the same kind of food is eaten every day.
- b. It supplies adequate amounts of all essential nutrients.
- c. It has various foods in different proportions.
- d. It ensures limited intake of saturated fats, added sugars, and salt.
- e. It ensures that energy intakes do not exceed or fall short of energy needs.

ANSWER:

a

54. You purchased an enriched food product. This means that the product _____.

- a. is devoid of nutrients
- b. is low in calories and nutrients
- c. could be either nutritious or not nutritious
- d. is inferior to similar products
- e. is intended for people with medical disorders

ANSWER:

c

55. The basis of a healthy, nutritious diet is one in which primarily _____ foods are consumed.

- a. fast
- b. medical
- c. natural
- d. organic
- e. whole

ANSWER:

e

56. Berries are a good source of vitamin C. Cold-water fish such as salmon are a good source of healthy fats containing omega-3 fatty acids, and dairy products are a good source of calcium. Consuming a variety of nutrient-dense foods such as these is one characteristic of a nutritious diet known as _____.

- a. adequacy
- b. calorie control
- c. moderation
- d. balance
- e. consistency

ANSWER:

d

57. Which of the following is described as a whole food?

- a. Ready-to-heat soups
- b. Strawberry yogurt
- c. Sweet potato fries

Chapter 1 - Food Choices and Human Health

- d. Dried beans
- e. Bottled smoothies

ANSWER:

d

58. Consuming sweets and foods with added sugars every day isn't recommended, but consuming them on occasion can be part of a healthy diet. This statement illustrates an important characteristic of a nutritious diet called _____.

- a. adequacy
- b. calorie control
- c. moderation
- d. variety
- e. balance

ANSWER:

c

59. What are the top two factors that influence food choices?

- a. Cost and health benefits
- b. Availability and taste
- c. Cost and emotional comfort
- d. Values and taste
- e. Cost and taste

ANSWER:

e

60. Your family always has rice available at every meal, just as it has been for every generation. This is an example of food selection because of _____.

- a. cultural tradition
- b. emotional comfort
- c. availability
- d. social pressure
- e. economy

ANSWER:

a

61. In a study, researchers examine the characteristics and history of three children who suffer from ongoing insomnia and who have low blood levels of vitamin D. They compare these observations and determine that exploring a connection between low vitamin D levels in children and insomnia warrants further research. This study is an example of a(n) _____.

- a. epidemiological study
- b. case study
- c. intervention study
- d. blind experiment
- e. laboratory study

ANSWER:

b

62. Research suggests that consumption of both fermented foods and high-fiber whole foods, such as vegetables, improves the diversity and number of beneficial bacteria in the gut. Researchers think that regularly consuming fermented foods has a greater impact on improving gut health compared to regularly consuming high-fiber foods. They want to test their

Chapter 1 - Food Choices and Human Health

hypothesis by comparing changes to gut bacteria in people who will consume fermented foods every day for six weeks with those who will consume high-fiber vegetables each day for six weeks. Which type of research design will the scientists consider?

- a. An epidemiological study
- b. A case study
- c. An intervention study
- d. A laboratory study
- e. A double-blind study

ANSWER:

c

63. Research often results in new questions that lead to additional studies and different study designs. Which describes a logical progression for how this process occurs?

- a. Epidemiological studies, case studies, intervention studies, controlled clinical trials
- b. Epidemiological studies, a meta-analysis, case studies, intervention studies
- c. Case studies, a meta-analysis, intervention studies, epidemiological studies
- d. Case studies, epidemiological studies, controlled clinical trials, a meta-analysis
- e. Case studies, controlled clinical trials, epidemiological studies, intervention studies

ANSWER:

d

64. A person with a heart disease is told to make some diet and lifestyle changes. He states, "I know that I should make changes because my father and brother both died of heart attacks. But I really like to have my big steaks for dinner." Which stage of behavior change does this example represent?

- a. Precontemplation
- b. Contemplation
- c. Action
- d. Maintenance
- e. Adoption

ANSWER:

b

65. An individual has started to set small goals after writing an action plan for change. Which stage of behavior change does this example represent?

- a. Contemplation
- b. Preparation
- c. Action
- d. Adoption
- e. Precontemplation

ANSWER:

b

66. A medium orange and a cup of orange juice each provide 80% of the recommended intake of vitamin C. The orange contains approximately 70 calories, while the juice contains 110 calories. With respect to vitamin C, the orange offers more _____.

- a. balance
- b. nutrient density
- c. calorie density

Chapter 1 - Food Choices and Human Health

- d. moderation
- e. variety

ANSWER:

b

67. A false story has circulated for several years on the Internet about the chickens used by a popular national fried chicken chain. It claims that the chickens the company uses have been genetically modified to have no heads, beaks, or feet and are kept alive with feeding tubes. This story is an example of:

- a. an advertorial.
- b. an urban legend.
- c. an infomercial.
- d. anecdotal evidence.
- e. a blind study.

ANSWER:

b

68. A celebrity has a half-hour television show describing a new dietary supplement that they claim have made them much healthier. During the show, they describe how they have seen improvement in their skin, hair, and eyesight without going to the doctor. This show is an example of:

- a. an advertorial.
- b. an urban legend.
- c. an infomercial.
- d. valid nutrition information.
- e. a blind study.

ANSWER:

c

69. When determining if a website offers reliable nutrition information, it is best to avoid:

- a. websites that end in “org” and “edu.”
- b. sites that identify the authors’ names and credentials.
- c. links to other sites even on pages published by a reliable source.
- d. websites that are selling goods and services.
- e. websites that end in “gov”.

ANSWER:

d

70. A sign that nutrition information is unreliable is if:

- a. it is being made by an advertiser who is paid to make claims.
- b. the evidence used to support the claim comes from a university laboratory.
- c. it appears in a peer-reviewed scientific journal.
- d. is written by a public health dietitian.
- e. it has been reviewed by a medical board or accredited health professional.

ANSWER:

a

71. Characteristics of a legitimate and qualified nutrition expert include:

- a. graduation from an accredited university after completing a program of dietetics.
- b. completion of a medical degree.

Chapter 1 - Food Choices and Human Health

- c. use of the term “nutritionist” after the individual’s name.
- d. a Bachelor of Arts degree from a correspondence program.
- e. authoring news articles about nutrition.

ANSWER:

a

72. Describe the potential benefits of physical activity.

ANSWER: Some of the potential benefits of physical activity are as follows:

- Reduced risks of cardiovascular diseases, diabetes, certain cancers, hypertension, and other diseases.
- Increased endurance, strength, and flexibility.
- More cheerful outlook and less likelihood of depression.
- Improved mental functioning.
- Feeling of vigor.
- Feeling of belonging—the companionship of sports.
- Stronger self-image.
- Reduced body fat and increased lean tissue.
- A more youthful appearance, healthy skin, and improved muscle tone.
- Greater bone density and lessened risk of adult bone loss in later life.
- Increased independence in the elderly.
- Sound, beneficial sleep.
- Faster wound healing.
- Reduced menstrual symptoms.
- Improved resistance to infection.

73. Explain why a processed food may or may not be healthy. Give two examples of healthy and unhealthy processed foods.

ANSWER: The term “processed” refers to foods subjected to any process, such as trimming, milling, and cooking, as well as the addition of additives and alteration of texture. A processed food may or may not be nutritious, depending on the starting material and the type(s) of processing the food undergoes. Minimally or less-processed foods such as bagged salads, frozen vegetables, dry-roasted nuts, and canned beans are considered convenient, healthy forms of processed foods that can save busy cooks time when preparing and planning a nutrient-dense diet.

Unhealthy processed foods are foods that use manufacturing and industrial ingredients such as sugar, hydrogenated fats, salt, colorings, and flavorings to disguise or improve undesirable qualities of the original food. These processed foods differ greatly in taste, nutrition, and/or appearance in comparison to food prior to processing. Examples include many snack foods, cereals made with refined grains and contain added sugars, frozen pizzas, chicken nuggets, and sodas.

74. Is it possible to take dietary supplements in place of food? Why or why not?

ANSWER: Real food is superior to supplements. Most healthy people who eat a nutritious diet need no dietary supplements at all. Even if a person’s basic nutrient needs are perfectly understood and met, a dietary supplement taken in place of food still lacks something that foods provide. Hospitalized clients who are fed nutrient mixtures through a vein often improve dramatically when they can finally eat food. Real food is important to health, and it offers something that cannot be provided through a supplement alone.

75. Why does the variety of foods available to us today make it more difficult, rather than easier, to plan a nutritious diet?

Chapter 1 - Food Choices and Human Health

ANSWER: About 100 years ago, there were relatively few food choices available, and the available foods were mostly whole foods. The number of foods supplied by the food industry today is astounding. Tens of thousands of foods now line market shelves—many are processed mixtures of basic food, and some are constructed entirely from highly processed ingredients. Ironically, this abundance often makes it more difficult, rather than easier, to plan a nutritious diet.

76. Identify and briefly describe the five characteristics of a nutritious diet.

ANSWER: A nutritious diet is an eating pattern that has five characteristics: adequacy, balance, calorie control, moderation, and variety. Adequacy is the dietary characteristic of providing all of the essential nutrients, fiber, and energy in amounts sufficient to maintain health and body weight. Balance is the dietary characteristic of providing foods of a number of types in proportion to each other, such that foods rich in some nutrients do not crowd out the diet. Calorie control is the dietary characteristic of controlling energy intake. Moderation is the dietary characteristic of providing constituents within set limits, not to excess. Variety is the dietary characteristic of providing a wide selection of foods.

77. Identify at least five factors that drive food choices and give an example of each.

ANSWER: Many factors such as cultural, psychological, physical, social, and philosophical factors influence people's food choices. Some of these factors are as follows:

- Advertising: The media have persuaded you to consume these foods.
- Availability: They are present in the environment and accessible to you.
- Cost: They are within your financial means.
- Emotional comfort: They can make you feel better for a while.
- Habit: They are familiar; you always eat them.
- Personal preference and genetic inheritance: You like the way these foods taste.
- Positive associations: They are eaten by people you admire, or they indicate status, or they remind you of fun.
- Negative associations: They were forced on you, or you became ill while eating them.
- Region of the country: They are foods favored in your area.
- Social norms: Your companions are eating them, or they are offered, and you feel you can't refuse them.
- Values or beliefs: They fit your religious tradition, square with your political views, or honor the environmental ethic.
- Weight: You think they will help to control body weight.
- Nutrition and health benefits: You think they are good for you.

78. Describe why people should not make changes in their diet based on the results of a single research study.

ANSWER: Nutrition science is an active, changing, and growing body of knowledge. One study does not "prove" or "disprove" anything. Only when a finding has stood up to rigorous repeated testing in several kinds of experiments performed by several different researchers is it finally considered confirmed. Even then, strictly speaking, science consists not of facts that are set in stone but of theories that can always be challenged and revised.

79. Explain the concept of nutrient density and give an example.

ANSWER: Nutrient density is determined by the amount of nutrients relative to the energy content of a food. A nutrient-dense food provides vitamins, minerals, and other beneficial substances with relatively few calories. Consider calcium sources, for example. Ice cream and fat-free milk both supply calcium, but a cup of rich ice cream contributes more than 350 calories, whereas a cup of fat-free milk has only 85—and almost double the calcium. Fat-free milk has a high nutrient density, whereas ice cream has a low nutrient density. Among foods that often rank high in nutrient density are the vegetables, particularly the nonstarchy vegetables, such as dark leafy greens (cooked and raw), red bell peppers, broccoli, carrots, mushrooms, and

Chapter 1 - Food Choices and Human Health

tomatoes.

80. Describe how you would determine whether an Internet site offers reliable nutrition information.

ANSWER: To determine whether an Internet site offers reliable nutrition information, ask some of the following questions: Who is responsible for the site? For example, “gov” and “edu” indicate government and university sites, which are usually reliable sources of information. Do the names and credentials of information providers appear? Many legitimate sources provide e-mail addresses or other ways to obtain more information about the site and the information providers behind it. Are links with other reliable information sites provided? Reputable organizations almost always provide links with other similar sites because they want you to know of other experts in their area of knowledge. Caution is needed when you evaluate a site by its links, however. Anyone, even a quack, can link a webpage to a reputable site without the organization’s permission. Is the site selling a product or service? Commercial sites may provide accurate information, but they also may not, and their profit motive increases the risk of bias. Does the site charge a fee to gain access to it? Many academic and government sites offer the best information, usually for free. Some legitimate sites do charge fees, but before paying up, check the free sites. There’s a good chance you’ll find what you are looking for without paying.