

Unit 1 - Key Nutrition Concepts and Terms

1. Plant foods such as grains and vegetables leave a higher carbon footprint compared to animal foods such as dairy and meats.

- a. True
- b. False

ANSWER: False

2. Nutrition is an interdisciplinary science that includes biological, chemical, physical, and food sciences, as well as mathematics and statistics.

- a. True
- b. False

ANSWER: True

3. Many children living in food-insecure households may be adequately nourished; however, as a group, they are at higher risk of poor school performance as well as social and behavioral problems.

- a. True
- b. False

ANSWER: True

4. Broccoli is an example of energy-dense food.

- a. True
- b. False

ANSWER: False

5. Inadequate diets may produce a spectrum of signs and symptoms related to multiple nutrient deficiencies.

- a. True
- b. False

ANSWER: True

6. Food security is access at all times to a sufficient supply of safe and nutritious foods.

- a. True
- b. False

ANSWER: True

7. Vitamins and minerals supply a major portion of calories to the body and are called energy nutrients.

- a. True
- b. False

ANSWER: False

8. Intake of energy-dense diets can be a contributor to the development of diabetes.

- a. True
- b. False

ANSWER: True

9. Essential nutrients are nutrients that are synthesized by the body from components of food in our diet.

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- a. True
- b. False

ANSWER: False

10. Empty-calorie foods provide few calories and high amounts of nutrients.

- a. True
- b. False

ANSWER: False

11. Both essential and nonessential nutrients are equally important to growth and health.

- a. True
- b. False

ANSWER: True

12. Calories are a unit of measure that used by itself allow one to assess a food's healthfulness.

- a. True
- b. False

ANSWER: False

13. Delayed sexual maturation and stunted growth are symptoms of a(n) _____ deficiency.

- a. selenium
- b. iron
- c. zinc
- d. vitamin D
- e. calcium

ANSWER: c

14. Which of the following is a result of vitamin A deficiency in the diet?

- a. impaired wound healing
- b. weight loss and depression
- c. weak bones and bowed legs
- d. mouth ulcers and loss of teeth
- e. impaired ability to see in dim light

ANSWER: e

15. The current RDAs referenced in the DRIs reflect nutrient intake levels that protect _____ from developing deficiency disease and that also reduce the risk of common chronic diseases.

- a. almost all healthy individuals
- b. patients recovering from surgery
- c. all adults
- d. individuals with chronic health problems
- e. individuals over the age of 55

ANSWER: a

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16. An example of malnutrition is _____.

- a. rheumatoid arthritis
- b. migraine headaches
- c. scurvy
- d. asthma
- e. lupus

ANSWER:

c

17. Essential nutrients _____.

- a. are obtained from the food we consume
- b. should be consumed in lower amounts than nonessential nutrients
- c. are generally manufactured by the body
- d. are less important than nonessential nutrients
- e. are not obtained from the food we consume

ANSWER:

a

18. The body can protect itself from excessively high levels of vitamin _____ by excreting the excess in the urine.

- a. A
- b. C
- c. D
- d. E
- e. K

ANSWER:

b

19. Those at higher risk of becoming inadequately nourished include _____.

- a. pregnant and breastfeeding women
- b. women and men between the ages of 65 and 80
- c. athletes and individuals who exercise regularly
- d. teenage boys and young adult men
- e. teenage girls and young adult women

ANSWER:

a

20. An example of a nonessential nutrient is _____.

- a. calcium
- b. cholesterol
- c. iron
- d. folate
- e. sodium

ANSWER:

b

21. An example of a nonessential nutrient is _____.

- a. fiber
- b. folate

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- c. zinc
- d. vitamin K
- e. vitamin C

ANSWER:

d

22. Which of the following phytochemicals imparts a red color to tomatoes and acts as an antioxidant?

- a. anthocyanin
- b. beta-carotene
- c. kaempferol
- d. ellagic acid
- e. lycopene

ANSWER:

e

23. Various types of sulfur-containing phytochemicals present in vegetables such as _____ help prevent a number of different types of cancer in people with specific gene types.

- a. potatoes
- b. carrots
- c. onions
- d. broccoli
- e. spinach

ANSWER:

d

24. Which of the following phytochemicals imparts an orange color to carrots?

- a. lycopene
- b. beta-carotene
- c. anthocyanin
- d. phycocyanin
- e. kaempferol

ANSWER:

b

25. Which of the following phytochemicals imparts a blue color to blueberries?

- a. beta-carotene
- b. xanthophyll
- c. anthocyanin
- d. phycocyanin
- e. lycopene

ANSWER:

c

26. An example of a metabolic process is:

- a. the excretion of vitamin C in urine.
- b. bone growth.
- c. catching a cold.
- d. waking up from a night of deep sleep.

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- e. the formation of energy from carbohydrates.

ANSWER:

e

27. The equivalent of 1 ounce is _____ tablespoons (liquid).

- a. 1.5
- b. 2.0
- c. 2.5
- d. 3.0
- e. 3.5

ANSWER:

b

28. Which nutrient is a source of fuel for the body?

- a. vitamins
- b. minerals
- c. proteins
- d. antioxidants
- e. water

ANSWER:

c

29. Which sequence of events correctly describes the development of a nutrient deficiency?

- a. tissue stores of the nutrient are depleted; blood levels of the nutrient decrease; physical signs and symptoms; long-term impairment of health
- b. physical signs and symptoms; tissue stores of the nutrient are depleted; impaired cellular functions; long-term impairment of health
- c. long-term impairment of health; physical signs and symptoms; tissue stores of the nutrient are depleted; blood levels of the nutrient decrease
- d. decreased nutrient availability to cells; long-term impairment of health; physical signs and symptoms; tissue stores of the nutrient are depleted
- e. impaired cellular functions; blood levels of the nutrient decrease; tissue stores of the nutrient are depleted; physical signs and symptoms

ANSWER:

a

30. Which of the following foods is a nutrient-dense food?

- a. sausages
- b. hard-boiled eggs
- c. biscuits
- d. jelly
- e. coffee

ANSWER:

b

31. Which of the following foods is an example of empty-calorie foods?

- a. cheese twists
- b. yogurt
- c. lean meat

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- d. dried beans
- e. collards

ANSWER:

a

32. Which of the following foods is an example of energy-dense food?

- a. low-fat soy milk
- b. broccoli
- c. pizza
- d. bananas
- e. breads

ANSWER:

c

33. Proteins are made up of "building blocks" called _____.

- a. starches
- b. fatty acids
- c. amino acids
- d. cholesterol
- e. fiber

ANSWER:

c

34. Chronic diseases _____.

- a. are contagious
- b. can always be cured
- c. usually develop quickly
- d. include hypertension and cancer
- e. are not influenced by diet

ANSWER:

d

35. Low-calcium diets and poor vitamin D status are related to the development of _____.

- a. hyperlipidemia
- b. osteoporosis
- c. hyperglycemia
- d. tooth decay
- e. asthma

ANSWER:

b

36. Which of the following is a function of folate?

- a. It synthesizes fatty acids.
- b. It enhances mineral absorption.
- c. It metabolizes carbohydrates.
- d. It prevents vitamin B₁₂ toxicity.
- e. It aids in protein synthesis.

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ANSWER:

e

37. DRI stands for _____.

- a. Dietary Reference Intakes
- b. Daily Required Intakes
- c. Daily Recommended Intakes
- d. Dietary Recommended Ingestion
- e. Dietary Reference Ingestion

ANSWER:

a

38. DRIs are _____.

- a. based on less conclusive scientific information than are the RDAs
- b. used to assess adequacy of intakes of population groups
- c. used to reduce the risk of acute illnesses
- d. the general term used for nutrient intake standards for healthy people
- e. "tentative" RDAs

ANSWER:

d

39. EARs are defined as _____.

- a. the desired level of nutrient intake that meets the needs of nearly all healthy individuals
- b. an estimate of the safe upper limit of a nutrient
- c. tentative RDAs based on less conclusive evidence than the RDAs
- d. the nutrient intake values that are estimated to meet the requirements of half the healthy individuals in a group
- e. an estimate of the safe lower limit of a nutrient

ANSWER:

d

40. AIs _____.

- a. are established for a few nutrients for which too few reliable scientific studies have been done to establish an RDA
- b. are established for nutrients that are less important for growth and health than other nutrients
- c. are established for nutrients that are needed in very small amounts in the diet
- d. are recommended intakes for nutrients for which there are no ULs
- e. are recommended intakes for people with chronic diseases

ANSWER:

a

41. A folate deficiency _____.

- a. causes disturbances in the sense of smell
- b. reduces appetite
- c. leads to abnormalities in the shape of red blood cells
- d. is associated with a decline in the body's ability to fight infections
- e. is associated with vomiting

ANSWER:

c

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42. Which nutrient is required for protein synthesis within cells?

- a. potassium
- b. vitamin C
- c. calcium
- d. niacin
- e. folate

ANSWER:

e

43. What premise is shared by the DRIs we have today and those in the past?

- a. They account for all factors that influence nutrient needs.
- b. Nutrient intake should come primarily from foods.
- c. Certain foods should be excused from one's diet.
- d. Dietary intake should consist of foods and supplements in order to reach daily intake goals.
- e. They are designed for individuals with nutrient deficiencies and malnutrition.

ANSWER:

b

44. During her freshman year of college, Roya experienced many environmental changes that influenced her diet and lifestyle. She had a limited food budget and was living on campus in a dorm. This meant her ability to prepare meals was largely limited to a microwave and mini refrigerator in her room and her ability to get transportation to the grocery store. To save money and not have to cook, she decided that she would eat only fruit for breakfast which she would keep in her room. She'd grab a salad and fries at the dining hall on campus for lunch. She'd usually skip dinner in the dining hall because it was served early in evening when she wasn't hungry yet. Later into the evening when she did get hungry, she'd buy snacks foods from the vending machine, or she'd get her roommate to pick up fast food on her way home from work. She often snacked on cookies, fried foods, pasta, ice cream, chips, cookies, and diet soda.

As the school year progressed, Roya had recurrent bouts of respiratory illness and felt chronically fatigued, so she visited the walk-in health clinic on campus. The doctor diagnosed her with iron-deficiency anemia and speculated that in addition to not getting enough iron she was probably also not getting enough protein or B vitamins. It is now the end of the school year, and Roya can tell her health has declined. She has also gained a significant amount of weight despite not eating dinner and being malnourished in several nutrients. Roya decides to register for a nutrition class over the summer to learn how she can make healthier food choices.

What was most likely the cause of Roya's struggle with recurrent illness and chronic fatigue?

- a. She was not consuming enough fruits and vegetables
- b. She was not consuming an adequate, well-balanced diet.
- c. She was consuming an excess of nutrient-dense foods.
- d. She was consuming more fat than sugar.
- e. She was consuming too many calories in the evening.

ANSWER:

b

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What iron-rich food could Roya have added to her diet and could be prepared or stored in a dorm room?

- a. granola bars
- b. yogurt
- c. canned tuna or chicken
- d. milk
- e. instant oatmeal

ANSWER:

c

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Roya had a limited amount of money that she could spend on food, and her ability to get to the supermarket was also limited. Therefore, the quantity and quality of healthy food that she had available were affected. This is an example of _____.

- a. food insecurity
- b. malnutrition
- c. energy density
- d. food security
- e. nourishment vulnerability

ANSWER:

a

47. During her freshman year of college, Roya experienced many environmental changes that influenced her diet and lifestyle. She had a limited food budget and was living on campus in a dorm. This meant her ability to prepare meals was largely limited to a microwave and mini refrigerator in her room and her ability to get transportation to the grocery store.

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Which foods in Roya's diet were the most energy-dense?

- a. fruits
- b. diet sodas
- c. salads
- d. pastas
- e. French fries

ANSWER:

e

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What should Roya strive to do during her sophomore year to help improve her nutrition and health?

- a. avoid "bad foods" that are high in calories
- b. continue to skip dinner but make healthier choices at the vending machine
- c. drink a protein shake and take a multivitamin and an iron supplement each day
- d. restrict calories and skip breakfast to help herself lose the weight she gained
- e. substitute nutrient-dense foods for energy-dense foods to help balance calories and increase the intake of essential nutrients

ANSWER:

e

49. ULs are _____.

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- a. the minimum level of a nutrient one needs to consume to be healthy
- b. used to assess adequacy of intakes of population groups
- c. upper limits of nutrient intake compatible with health
- d. nutrient intake values for athletes
- e. nutrient intake values estimated to meet the requirements of 50% of healthy individuals

ANSWER:

c

50. Adults living in food-insecure households are more likely to _____.

- a. be underweight
- b. have depression
- c. have liver disease
- d. have kidney disease
- e. have hypotension (low blood pressure)

ANSWER:

b

51. A nutrient that has an AI value will not have a(n) _____.

- a. RDA
- b. EAR
- c. DRI
- d. UL
- e. DV

ANSWER:

a

52. What intake value is primarily used for research studies examining nutrient intakes in large populations?

- a. RDA
- b. DRI
- c. UL
- d. AI
- e. EAR

ANSWER:

e

53. Latifa wants to know how much Vitamin C she should aim to consume each day. What set of recommendations should she use?

- a. AI
- b. UL
- c. DRI
- d. RDA
- e. EAR

ANSWER:

d

54. Chemical substances that prevent or repair damage to cells caused by exposure to oxidizing agents are _____.

- a. phytochemicals
- b. essential nutrients

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- c. antioxidants
- d. amino acids
- e. nonessential nutrients

ANSWER:

c

55. Which of the following correctly describes humans' needs for nutrients?

- a. Humans need different nutrients in different forms.
- b. Humans need different nutrients in the same amounts.
- c. Humans need the same nutrients in the same amounts.
- d. Humans need the same nutrients in different amounts.
- e. Humans need different nutrients in varying amounts.

ANSWER:

d

56. An individual with a protein deficiency is likely to also be deficient in _____.

- a. zinc
- b. calcium
- c. vitamin C
- d. vitamin D
- e. folate

ANSWER:

a

57. Caleb is interested in taking supplements of vitamin C and zinc. What set of reference values should he use to make sure he does not consume excessive amounts of each?

- a. EAR
- b. UL
- c. AI
- d. RDA
- e. CDRR

ANSWER:

b

58. Which is an adaptive mechanism that protects a healthy body from side effects related to fluctuating dietary intakes of nutrients?

- a. decreasing body temperature when excess calories are consumed
- b. using calcium and vitamin D for bone health
- c. storing excess vitamin C in cells
- d. increasing iron absorption when levels are low
- e. excreting excess vitamin A in urine

ANSWER:

c

59. Which condition or disease can lead to malnutrition by impairing the body's ability to absorb or use nutrients consumed?

- a. osteoporosis
- b. cancer

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- c. heart disease
- d. arthritis
- e. asthma

ANSWER:

b

60. Which household or population is at greatest risk for experiencing food insecurity?

- a. college students
- b. two-parent households
- c. households with no children
- d. households with more than one person
- e. pregnant women

ANSWER:

a

61. Which of the following is not considered a chronic disease?

- a. cancer
- b. hypertension (high blood pressure)
- c. osteoporosis
- d. diabetes
- e. tuberculosis

ANSWER:

e

62. Empty-calorie foods provide little to no _____.

- a. nutrients
- b. calories
- c. sodium
- d. added sugars
- e. cholesterol

ANSWER:

a

63. Which of the following is a correct statement about healthy diets?

- a. It's important to consider foods as "good" and "bad".
- b. Energy-dense foods should be excluded.
- c. Nutrient-dense foods should be greatly limited.
- d. No foods or preparation methods must be excluded.
- e. Substituting energy-dense foods for empty-calorie foods helps one achieve dietary balance.

ANSWER:

d

64. Foods that provide relatively high levels of calories per weight unit of the food are _____.

- a. Nutrient-dense foods
- b. Energy-dense foods
- c. Empty calorie foods
- d. "Bad" foods
- e. Empty nutrient foods

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ANSWER:

b

65. Which of the following is not associated with the development of chronic diseases?

- a. infection
- b. sleep
- c. activity
- d. stress
- e. dietary intake

ANSWER:

a

66. The amounts, proportion, and variety of different foods that one regularly consumes is referred to as a _____.

- a. Nutrient-dense diet
- b. Balanced pattern
- c. Balanced diet
- d. Healthy diet
- e. Dietary pattern

ANSWER:

e

67. The extent of greenhouse gases released into the atmosphere as a result of food production is known as the food's _____.

- a. Sustainable agriculture
- b. Eco-friendly agriculture
- c. Carbon footprint
- d. Oxidizing footprint
- e. Green footprint

ANSWER:

c

68. Which nutrient is most likely to be measured in milligrams?

- a. vitamin C
- b. water
- c. carbohydrates
- d. fats
- e. protein

ANSWER:

a

69. Biologically active compounds in plants that have positive effects on health are _____.

- a. minerals
- b. antioxidants
- c. vitamins
- d. phytochemicals
- e. dietary fiber

ANSWER:

d

Name _____ Class _____ Date _____
: _____ : _____ e: _____

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70. Which is not a factor identified that contributes to food insecurity?

- a. climate change
- b. limited access to healthcare
- c. droughts
- d. sustainable agriculture
- e. unemployment

ANSWER:

d

71. Which food most likely has the highest carbon footprint?

- a. blueberries
- b. carrots
- c. rice
- d. yogurt
- e. peanuts

ANSWER:

d