

## Chapter 02 Evaluating Nutrition Information

### Multiple Choice Questions

1. After reviewing the results of a patient's medical tests, a physician tells the patient that her mild back pain is not caused by a serious problem, and she can try acupuncture and massage therapy to relieve the discomfort. Based on this information, the physician's advice indicates that he

- A. is a typical conventional medical practitioner.
- B. is from an Asian country.
- C. practices quackery.
- D. practices integrative medicine.**

*Bloom's Level: 3. Apply*

*Learning Outcome: 2.04.01 Explain the difference between conventional medicine and complementary and alternative medicine (CAM).*

*Section: 2.04*

*Topic: Complementary and alternative medicine*

2.

After examining a patient and reviewing the results of his blood tests, a physician tells the patient that his mild depressive symptoms are not the result of a serious health problem. The physician suggests that the patient should try regular exercise and take the dietary supplement St. John's wort for three months. After this period, the physician will prescribe antidepressant medication, if the patient does not feel emotionally better. This advice is

- A. an indication that the physician practices integrative medicine.**
- B. quackery and medically irresponsible.
- C. typical for a conventional medical practitioner.
- D. unreliable because the physician is not considering alternative methods of treating the patient's mental illness.

*Bloom's Level: 4. Analyze*

*Learning Outcome: 2.04.01 Explain the difference between conventional medicine and complementary and alternative medicine (CAM).*

*Section: 2.04*

*Topic: Complementary and alternative medicine*

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3. Which of the following statements is false?

**A.** According to scientific research, most dietary supplements provide considerable health benefits.

B.

The RDN credential is legally protected.

C.

A person with a PhD who promotes drinking vinegar as the cure for lung cancer is practicing quackery.

**D.** Disclaimers are clues that a product is not likely to live up to your expectations or the manufacturer's claims.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.02.03 Identify common "red flags" that are signs of nutrition misinformation.*

*Learning Outcome: 2.03.01 Explain how to identify reliable nutrition experts.*

*Learning Outcome: 2.04.03 Discuss the risks and benefits of taking dietary supplements.*

*Section: 2.02*

*Section: 2.03*

*Section: 2.04*

*Topic: Dietary supplements*

*Topic: Evaluating nutrition information*

4. \_\_\_\_\_ can be classified as a dietary supplement.

A. Cherry jelly

B. Orange drink

C. Chewing tobacco

**D.** Ginkgo biloba

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.04.02 Explain how the FDA regulates medicines differently than dietary supplements.*

*Section: 2.04*

*Topic: Dietary supplements*

5. A scientist discovers a chemical compound in certain rocks that she calls "stonia." She cannot market extracts that contain stonia as a dietary supplement, because it

- A. has to receive a U.S. patent before the FDA will approve its use.
- B. contains more than one kind of natural material.
- C. does not contain dietary ingredients.
- D.

must first undergo scientific testing to determine its effectiveness.

*Bloom's Level: 3. Apply*

*Learning Outcome: 2.04.02 Explain how the FDA regulates medicines differently than dietary supplements.*

*Section: 2.04*

*Topic: Dietary supplements*

6. Which of the following statements is true?

- A. Physicians and dietitians do not recommend dietary supplements for their patients.
- B. People who develop side effects after taking dietary supplements can report their experiences to the GAO.
- C.
- D.

Dietary supplements may interact negatively with other substances a person takes.

D. According to the legal definition developed by the FDA, a "dietary supplement" is a food that influences metabolism.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.04.03 Discuss the risks and benefits of taking dietary supplements.*

*Section: 2.04*

*Topic: Dietary supplements*

7. Which of the following statements is true?

A. According to the legal definition developed by the FDA, a "dietary supplement" is a food that influences metabolism.

**B.**

Before taking a dietary supplement, people should determine whether the product is necessary and safe.

C. People who develop side effects after taking dietary supplements can report their experiences to the GAO.

D. Physicians and dietitians do not recommend dietary supplements for their patients.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.04.03 Discuss the risks and benefits of taking dietary supplements.*

*Section: 2.04*

*Topic: Dietary supplements*

8. Which of the following practices is an example of complementary and alternative medicine (CAM)?

**A.** Visiting a chiropractor to have a spinal treatment

B.

Taking aspirin to reduce inflammation.

C.

Having surgery to remove a cancerous tumor.

D.

Consuming foods that contain niacin to treat pellagra.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.04.01 Explain the difference between conventional medicine and complementary and alternative medicine (CAM).*

*Section: 2.04*

*Topic: Complementary and alternative medicine*

9. Which of the following practices is an example of complementary and alternative medicine (CAM)?

- A. Consuming St. John's wort to improve mood
- B.

Having surgery to repair a torn tendon

- C. Taking an aspirin to relieve a headache
- D. Using a prescription antibiotic to treat a skin infection

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.04.01 Explain the difference between conventional medicine and complementary and alternative medicine (CAM).*

*Section: 2.04*

*Topic: Complementary and alternative medicine*

10. Which of the following statements is true?

A.

The FDA can recall a dietary supplements when there is evidence that it is harmful.

- B. Manufacturers of dietary supplements must inform the FTC about negative health reports that may have resulted from the use of their products.
- C. The EPA regulates the labeling of dietary supplements.
- D. Medicinal herbs must undergo testing for safety and effectiveness by the FDA before they can be marketed.

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.04.02 Explain how the FDA regulates medicines differently than dietary supplements.*

*Section: 2.04*

*Topic: Dietary supplements*

11. Which of the following statements is true?

- A. Dietary supplements can be recalled if the products contain kava, lysine, or glucosamine.
- B. Medicinal herbs must undergo testing for safety and effectiveness by the FDA before they can be marketed in the United States.
- C.** Consumers can report negative health reports that may have resulted from their use of dietary supplements to the FDA.
- D.

Dietary supplements can include substances that are spread on the skin or injected into the body.

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.04.02 Explain how the FDA regulates medicines differently than dietary supplements.*

*Section: 2.04*

*Topic: Dietary supplements*

12.

Which of the following statements is true?

**A.**

It is not unusual for similar studies, especially those involving human subjects, to have different findings.

B.

Since 1970, nutrition information has undergone few updates, because scientists have discovered all of the nutrients and determined their functions.

C.

The results of one study are usually enough to convince nutrition scientists to adopt new ideas about nutrition-related topics.

D.

Dietary recommendations are generally based on the findings of one team of nutrition researchers.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.05 Discuss why similar scientific studies often have different results.*

*Section: 2.01*

*Topic: Scientific method*

## Chapter 02 - Evaluating Nutrition Information

13.

Which of the following statements is true?

**A.**

A scientist's professional affiliations and sources of financial support may influence his or her research findings.

B.

Dietary recommendations are generally based on the findings of one well-respected team of nutrition researchers.

C.

The results of one study are usually enough to convince the majority of nutrition scientists to adopt new ideas about nutrition-related topics.

D.

Since 1995, nutrition information has undergone few updates, because scientists have discovered all of the nutrients and determined their functions.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.05 Discuss why similar scientific studies often have different results.*

*Section: 2.01*

*Topic: Scientific method*

## Chapter 02 - Evaluating Nutrition Information

14.

Which of the following statements is true?

A.

When interpreting results of their studies, researchers generally seek to include some bias into their analyses.

B.

Since 1970, nutrition information has undergone few updates, because scientists have discovered all of the nutrients and determined their functions.

C. Dietary recommendations are generally based on the findings of one team of nutrition researchers.

**D.**

Scientific studies to investigate the same question can have different findings.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.05 Discuss why similar scientific studies often have different results.*

*Section: 2.01*

*Topic: Scientific method*

15.

A group of scientists suspects that certain dietary practices are partially responsible for different rates of hypertension among adults of different ethnic/racial groups. To test their hypothesis, the researchers examine data concerning the different population groups' hypertension rates and their past dietary practices. This research is a(n) \_\_\_\_\_ study.

**A.** retrospective

B. case-control

C. prospective

D. hypothetical

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.01 Explain the basic steps of the scientific method.*

*Section: 2.01*

*Topic: Nutrition basics*



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16. A group of registered dietitians is planning to conduct a scientific study to investigate the effects of eating honey on school-age children's behavior. At first, the researchers will

- A. gather data.
- B. make observations.**
- C. identify relationships between variables.
- D. analyze the hypothesis.

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.01.01 Explain the basic steps of the scientific method.*

*Section: 2.01*

*Topic: Scientific method*

17.

A medical researcher reads an article in "Today's Health-Conscious Woman" magazine about the benefits of using the phytochemical *capsaicin* to treat knee pain. She asks 10 people with arthritic knees to rub a cream that contains the phytochemical on their knee joints for two weeks. At the end of the two weeks, the researcher asks the subjects whether their knee pain improved, stayed about the same, or worsened during the treatment period. After collecting responses from the people, the researcher reports the results of her study during a popular TV show that is hosted by a doctor. Based on this information, which of the following statements is true?

A.

The researcher reviewed scientific literature regarding the use of capsaicin to treat knee pain.

**B. The researcher did not divide the subjects of her study into control and treatment groups.**

C.

The researcher used a standard scientific design for research involving human subjects.

D.

The researcher subjected the results of her study to peer-review.

*Bloom's Level: 4. Analyze*

*Learning Outcome: 2.01.01 Explain the basic steps of the scientific method.*

*Learning Outcome: 2.01.02 Explain the importance of having controls when performing experiments.*

*Section: 2.01*

*Topic: Scientific method*

18. A group of scientists conducts a scientific study to investigate dietary factors that influence the development of obesity. Which of the following activities is not likely to be a component of their research efforts?

- A. Submitting an article describing the study to a peer-reviewed journal
- B. Posting findings at the main researcher's Internet web site**
- C. Collecting data and analyzing results
- D. Making observations and formulating a hypothesis

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.01.01 Explain the basic steps of the scientific method.*

*Section: 2.01*

*Topic: Scientific method*

19. According to the observations of a nutrition scientist, laboratory mice are healthier when their diet contains physiological levels of vitamin D than when their diet lacks the micronutrient. The scientist hypothesizes that mice will be less likely to develop cancer when they consume a diet that supplies megadoses of vitamin D. Based on this information, the scientist is ready to

- A. design a double-blind study to test the vitamin D and cancer hypothesis in mice.
- B. conduct a controlled laboratory experiment to test the vitamin D and cancer hypothesis in mice.**
- C. set up an experimental epidemiological study to test the vitamin D and cancer hypothesis in mice.
- D. plan a retrospective study involving at least 5,000 laboratory mice to test the vitamin D and cancer hypothesis in mice.

*Bloom's Level: 3. Apply*

*Learning Outcome: 2.01.02 Explain the importance of having controls when performing experiments.*

*Section: 2.01*

*Topic: Scientific method*

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20.

Researchers at a major American university plan a 10-year scientific study to investigate lifestyle factors that contribute to heart disease. Which of the following activities is likely to be a component of their research efforts?

A.

Establishing a place for the subjects to live for the duration of the study.

**B.** Submitting an article describing the study to a peer-reviewed journal

C. Posting significant findings at the main researcher's Internet web site

D.

Contacting the local news station to report their findings

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

21. Scientists enroll 500 healthy adults in a study and collect dietary and other lifestyle information about the group. After 6 years, the scientists determine that study participants who ate at least 5 servings of fruits and vegetables daily were less likely to develop high blood pressure than participants who ate fewer than 5 servings of these foods daily. This study is an example of a(n) \_\_\_\_\_ study.

A. retrospective

**B.** prospective

C. nutritive

D. introspective

*Bloom's Level: 4. Analyze*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

22. A scientist adds 5 mcg of the mineral cadmium to the daily diet of 100 4-week-old laboratory mice. After twelve weeks, the researcher weighs and takes blood samples from each mouse. According to her findings, the mice lost weight during the 12-week period and they have abnormal levels of certain hormones in their blood. Based on this information and your knowledge of scientific research, what would you tell the researcher about her findings?

A. She needs to conduct more tests on the animals' blood, because her findings are incomplete.

**B.** The findings are not meaningful or valid because of the way she designed her study.

C. Her results are very interesting and she should report her findings to nutrition scientists, so they can repeat her study and confirm the results.

D. The findings need to be summarized in a research article for submission to a peer-reviewed nutrition journal.

*Bloom's Level: 4. Analyze*

*Learning Outcome: 2.01.02 Explain the importance of having controls when performing experiments.*

*Section: 2.01*

*Topic: Scientific method*

23. A nutrition researcher adds 30 mg of the mineral iron to the daily diet of 50 4-week-old laboratory mice. After ten weeks, the scientist takes blood samples from each mouse. According to his findings, the mice developed abnormal levels of certain enzymes in their red blood cells. Based on this information and your knowledge of scientific research, what would you tell him?

A. He should call a press conference and report his findings to the public, so they can avoid consuming excess iron.

B. He should prepare a research article that describes his study and its results for submission to a peer-reviewed nutrition journal.

C. He should report his findings to other nutrition scientists, so they can repeat his study and confirm the results.

**D.** He should consider his findings as an observation and redesign the study to include a control group.

*Bloom's Level: 4. Analyze*

*Learning Outcome: 2.01.02 Explain the importance of having controls when performing experiments.*

*Section: 2.01*

*Topic: Scientific method*

24. Over a 2-year period, a team of scientists records the eating behaviors and physical activity patterns of a group of healthy 8-year-old children to determine whether these factors are associated with weight gain. This study is an example of a(n) \_\_\_\_ study.

A.

*in-vitro*

B. retrospective

C. case-control

**D. prospective**

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

25. A group of nutrition researchers interviews 100 adults who have chronic high blood pressure to determine whether there is an association between consuming diets low in calcium during adolescence and developing high blood pressure in adulthood. This study is an example of a \_\_\_\_ study.

A. prospective

**B. retrospective**

C. case-control

D. macrosomatic

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

26. Which of the following kinds of studies would be the best to use when designing a scientific investigation to determine whether there is an association between consuming diets high in sodium during adolescence and developing high blood pressure in adulthood?

A. Single-blind study

**B. Observational study**

C. Experimental study

D. Double-blind study

*Bloom's Level: 3. Apply*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

27. A nutrition researcher would like to determine whether women who take fish oil supplements during pregnancy give birth to babies who score higher on basic intelligence tests when they are 5 years of age than the 5-year old children that were born to women who did not take the fish oil supplements during pregnancy. This kind of research is a \_\_\_\_\_ study.

- A.** prospective
- B. case-control
- C. double-blind
- D.

*in-vivo*

*Bloom's Level: 4. Analyze*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

28. Which of the following kinds of studies would be the best to use to identify lifestyle factors that may be related to the development of liver cancer in an adult population?

- A. Double-blind study
- B. Experimental study
- C.** Retrospective study
- D. Single-blind study

*Bloom's Level: 3. Apply*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

29. Scientists who investigate lifestyle factors that influence the prevalence of obesity among different population groups are conducting a(n) \_\_\_\_ study.

- A. pathological
- B.

*in-vitro*

- C.** epidemiological
- D. technological

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

30. Which of the following kinds of studies would be the best to use when investigating whether cigarette smoking influences weight gain?

- A. Single-blind
- B.** Cohort
- C. Conventional
- D. Double-blind

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

31. Scientists in a Central American country are studying factors that may be associated with delayed physical growth among a group of low-income children. The children live in a region of the nation that has high levels of lead in drinking water. This study is an example of a(an) \_\_\_\_ study.

- A. uncontrollable
- B. introspective
- C. conventional
- D.** epidemiological

*Bloom's Level: 3. Apply*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

32. Scientists would like to conduct a study to identify lifestyle factors that are associated with delayed physical growth among a group of low-income American children. Which of the following research designs would be the best for the researchers to use when designing their study?

A.

Human *in-vivo* experimental

B. Interventional

**C. Epidemiological**

D. Double-blind

*Bloom's Level: 3. Apply*

*Learning Outcome: 2.01.01 Explain the basic steps of the scientific method.*

*Section: 2.01*

*Topic: Nutrition basics*

33. A group of scientists would like to determine lifestyle factors that are associated with the development of asthma among American children. Based on this information, the researchers should design a (an) \_\_\_\_\_ study.

A.

*in-vivo*

B. conventional

**C. epidemiological**

D. double-blind

*Bloom's Level: 3. Apply*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*



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34. Generally, epidemiological studies

A. prove positive correlations.

**B.** cannot determine cause-and-effect relationships.

C.

involve *in-vitro* experimentation.

D. establish causation without experimentation.

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

35. Derek takes protein supplements before and after his workouts. He told his workout partner that he became 200% stronger within a couple of months after he added the supplements to his diet. His report about the effects of the supplements is an example of a(an)

A. factoid.

B. variable.

C. case report.

**D.** anecdote.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.04 Explain why nutrition information derived from anecdotes is not evidence based.*

*Section: 2.01*

*Topic: Evaluating nutrition information*

36. Zack takes 500 mg of vitamin C daily. He advises his friends to take vitamin C supplements because, he claims, the vitamin protects him from cold viruses. His claim about the usefulness of the vitamin is an

A. introspection.

**B.** anecdote.

C.

*in-vitro* assumption.

D.

*in-vivo* report.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.04 Explain why nutrition information derived from anecdotes is not evidence based.*

*Section: 2.01*

*Topic: Evaluating nutrition information*

37. Emily has brittle fingernails that crack and split easily. Emily's mother advises her daughter to take gelatin pills 3 times/day, because she has heard the practice strengthens fingernails. The mother's nutrition-related advice about the benefit of taking gelatin pills is an example of a(n)

A. hypothesis.

B. testimonial.

**C.** anecdote.

D. placebo.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.01 Explain the basic steps of the scientific method.*

*Section: 2.01*

*Topic: Nutrition basics*

38. Dylan takes garlic pills to lower his blood cholesterol level, and he recommends the pills to his friends, because he thinks the supplement is helpful. Dylan's nutrition-related advice to his friends is an example of a(an)

- A. peer review.
- B. introspection.
- C. anecdote.**
- D. subjective bias.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.04 Explain why nutrition information derived from anecdotes is not evidence based.*

*Section: 2.01*

*Topic: Evaluating nutrition information*

39. Having a control group enables researchers to

- A. provide specific treatments to participants of the group.
- B. avoid using harmful interventions when testing control subjects' responses.
- C. explore possible hypotheses for future research efforts.
- D. compare findings of the control group with those of the experimental group.**

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.01.02 Explain the importance of having controls when performing experiments.*

*Section: 2.01*

*Topic: Scientific method*

40. Phil is a participant in a study designed to examine the effects of taking a dietary supplement on muscle tissue development. Phil suspects he is in the experimental group, because he is certain his muscles are bigger and stronger as a result of taking the product supplied by the researchers. When the study is completed, Phil learns that he did not receive the dietary supplement. Phil thinks the researchers made a mistake—he is certain his muscle mass increased while he took the supplement. According to this information, Phil's belief that his physical condition improved while he participated in the study is an example of

- A. the placebo effect.**
- B. human subject bias.
- C. participant fatigue.
- D. an anecdotal report.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.02 Explain the importance of having controls when performing experiments.*

*Section: 2.01*

*Topic: Scientific method*

41. The host of a radio program makes a "red flag" claim about a nutrition-related product, because the claim is generally an indication that the information about the product is unreliable. The radio program host said,

- A. "According to the FDA, this product is classified a dietary supplement, because it contains vitamins."
- B. "This product contains sugar and certain artificial color and flavor additives."
- C. "The ingredients in this product are listed on the label."
- D.** "All ingredients in this product have been scientifically tested and clinically proven."

*Bloom's Level: 3. Apply*

*Learning Outcome: 2.02.03 Identify common "red flags" that are signs of nutrition misinformation.*

*Section: 2.02*

*Topic: Evaluating nutrition information*

42.

A physician who hosts a popular TV show makes several nutrition-related claims during one of the programs. Which of the doctor's claims is a "red flag" of unreliable information?

A.

The "placebo effect" often occurs in controlled studies involving human subjects.

B. Niacin cures pellagra.

**C.** Kava cures migraine headaches.

D.

Not all doctors are nutrition experts.

*Bloom's Level: 4. Analyze*

*Learning Outcome: 2.02.03 Identify common "red flags" that are signs of nutrition misinformation.*

*Section: 2.02*

*Topic: Evaluating nutrition information*

43. Which of the following observations is an example of an inverse correlation?

A. As children increase their physical activity level, they develop greater muscle mass than children who are less active.

**B.** When members of a population increase their consumption of milk and milk products, their risk of bone fractures decreases.

C.

When children eat three or more servings fruits and vegetables a day, their blood levels of vitamin C increase.

D. When pregnant women gain more weight than average, they are more likely to give birth to babies who are heavier than average.

*Bloom's Level: 4. Analyze*

*Learning Outcome: 2.01.01 Explain the basic steps of the scientific method.*

*Section: 2.01*

*Topic: Scientific method*

44. Which of the following observations is an example of a positive correlation?

**A.**

When women gain less weight than average during pregnancy, the birthweights of their babies tend to be lower than average.

B. When members of a population consume fewer fruits and vegetables, their risk of high blood pressure increases.

C. When a population's intake of green tea increases, the percentage of lung cancer cases in that population decreases.

D. When a group of children increases their physical activity levels, the percentage of the children who contract cold infections decreases.

*Bloom's Level: 4. Analyze*

*Learning Outcome: 2.01.01 Explain the basic steps of the scientific method.*

*Section: 2.01*

*Topic: Scientific method*

45. Which of the following observations is an example of an inverse correlation?

A. As a population's intake of beta carotene increases, the population's tissue levels of vitamin A increase.

**B.** Women who smoke 5 or more cigarettes each day during pregnancy are more likely to give birth to underweight babies than women who smoke fewer than 5 cigarettes a day during pregnancy.

C. Children who consume 3 cups of vitamin D milk daily develop stronger bones than children who drink fewer than 3 cups of vitamin D milk each day.

D. When population increases its daily consumption of whole grain products, the population's frequency of daily bowel movements increases.

*Bloom's Level: 4. Analyze*

*Learning Outcome: 2.01.01 Explain the basic steps of the scientific method.*

*Section: 2.01*

*Topic: Scientific method*

46. Which of the following observations is an example of a positive correlation?

**A.**

When a group of 6-year-old children increase their physical activity level to 60 minutes a day, the children's muscle mass increases.

B. When a population consumes more fruits and vegetables, the percentage of people in that population with scurvy decreases.

C. When older adults increase their daily intake of vitamin D, the percentage of the adults that develops infections decreases.

D. When teenage girls increase their intake of iron-rich foods, the percentage of the girls who have iron-deficiency decreases.

*Bloom's Level: 4. Analyze*

*Learning Outcome: 2.01.01 Explain the basic steps of the scientific method.*

*Section: 2.01*

*Topic: Scientific method*

47. Which of the following observations is an example of a positive correlation?

- A.** When a population's vitamin D intake decreases, the percentage of people in the population that have healthy immune systems decreases.
- B. When a population's level of vitamin C in white blood cells increases, the percentage of people in the population who develop scurvy decreases.
- C. When a population's level of physical activity increases, the percentage of people who develop heart disease decreases.
- D. When a population's intake of plant foods decreases, the percentage of obese people in that population increases.

*Bloom's Level: 4. Analyze*

*Learning Outcome: 2.01.01 Explain the basic steps of the scientific method.*

*Section: 2.01*

*Topic: Scientific method*

48. Scientists study 200 adults who have type 2 diabetes and 200 adults who have similar characteristics but do not have the disease. For 18 months, the researchers collect lifestyle information on all the study participants. According to the study's findings, the adults with type 2 diabetes were 25% less physically active than their counterparts who did not have type 2 diabetes. This is an example of a(n) \_\_\_\_\_ study.

- A. prospective
- B.** case-control
- C. inverse relationship
- D. anecdotal

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

49. A researcher wants to identify lifestyle factors that increase the risk of stomach cancer in men. His study design involves enrolling 250 adult men who have stomach cancer and 250 men who are cancer-free but have similar characteristics and backgrounds as the men who have stomach cancer. The researcher collects and analyzes information about each participant's lifestyle. Based on this information, what kind of study is the researcher conducting?

A.

*In-vivo*

B. Experimental

C. Cohort

**D.** Case-control

*Bloom's Level: 4. Analyze*

*Learning Outcome: 2.01.01 Explain the basic steps of the scientific method.*

*Section: 2.01*

*Topic: Scientific method*



50. Which of the following observations is an example of a negative (an inverse) correlation?

A.

When a group of adults increases their intake of fruits and vegetables, the percentage of people in the group who have high blood levels of vitamin C levels increases.

**B.**

When a group of older adults increases their intake of high-fiber foods, the percentage of people in the group who develop intestinal cancer decreases.

C.

When a group of people decreases their physical activity levels, the percentage of people in the group with healthy levels of body fat decreases.

D.

When a group of children eat more sugary foods, the percentage of children in the group who develop two or more decayed teeth increases.

*Bloom's Level: 3. Apply*

*Learning Outcome: 2.01.01 Explain the basic steps of the scientific method.*

*Section: 2.01*

*Topic: Scientific method*

51. Scientists conduct a study in which 100 adults with chronic diarrhea are divided into 2 groups of 50 people. One group is given a supply of yogurt that contains a certain kind of bacteria and the other group is given yogurt that is bacteria free. The study's participants and researchers do not know which group of subjects has the bacteria in the yogurt and which group does not. The scientists instruct the participants to eat the entire 8 ounces of yogurt once a day for a month and record their bowel habits. This is an example of a(n) \_\_\_\_\_ study.

A. introspective

**B. double-blind**

C. hypothetical

D. uncontrolled

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

52. A group of researchers wants to determine whether certain dietary factors are associated with the risk of attention deficit hyperactivity disorder (ADHD). The scientists follow a group of 500 healthy newborn babies for 10 years and collect health information as well as dietary practices for each child. At the end of the study period, the scientists analyze the data for correlations between the children's dietary practices and their likelihood of being diagnosed with ADHD. This is an example of a \_\_\_\_\_ study.

- A. retrospective
- B. hypothetical
- C. factorial
- D.** prospective

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

53. Researchers are conducting a study to determine the effects of vitamin C on the human immune system. The study involves providing pills that contain vitamin C to one group of human subjects and pills that do not contain vitamin C or other active ingredients to another group of people. The pills that do not contain the vitamin are

- A. supplements.
- B. probiotics.
- C. antidotes.
- D.** placebos.

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

Chapter 02 - Evaluating Nutrition Information

54.

Researchers are conducting a study to determine the effects of vitamin D supplements on the adult human immune system. The study involves providing pills that contain vitamin D to one group of human adults and pills that do not contain the vitamin or other active ingredients to another group of adults. The pills that do not contain vitamin D are

- A. interventions.
- B. placebos.**
- C. antidotes.
- D. distractors.

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

55. Researchers are conducting a study to determine the effects of zinc supplements on the human immune system. The study involves providing pills that contain zinc to one group of human subjects and pills that do not contain zinc or other active ingredients to another group of people. The pills that do not contain zinc are

- A. antidotes.
- B. placebos.**
- C. probiotics.
- D. supplements.

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.01.03 Design a nutrition-related study that involves human subjects.*

*Section: 2.01*

*Topic: Scientific method*

56. Which of the following periodicals features peer-reviewed articles?

A. *National Geographic Magazine*

**B.**

*Journal of the American Medical Association*

C.

*Men's Journal*

D. *Ladies Home Journal*

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.01.01 Explain the basic steps of the scientific method.*

*Learning Outcome: 2.02.01 Explain why there is so much nutrition misinformation.*

*Section: 2.01*

*Topic: Scientific method*

57. The government agency that enforces consumer protection laws by investigating false or misleading health-related claims is the

A. Agricultural Research Service (ARS).

B. Centers for Disease Control and Prevention (CDC).

**C.** Federal Trade Commission (FTC).

D. Environmental Protection Agency (EPA).

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.02.02 Discuss how people can become more critical and careful consumers of nutrition information.*

*Section: 2.02*

*Topic: Evaluating nutrition information*

58. Actress Lotta Talent appears in commercials endorsing the herbal supplement hoodia for weight loss. Her endorsement is an example of a(n)

**A.** testimonial.

B. purport.

C. anecdote.

D. factoid.

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.02.01 Explain why there is so much nutrition misinformation.*

*Section: 2.02*

*Topic: Evaluating nutrition information*

59. The professional football star Andro "The Man" McGraw claims the dietary supplement AminoProFix helped him build muscle mass quickly and safely. His endorsement of the product is an example of

- A.** a testimonial.
- B. a scientifically valid claim.
- C. unbiased reporting.
- D. peer review.

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.02.01 Explain why there is so much nutrition misinformation.*

*Section: 2.02*

*Topic: Evaluating nutrition information*

60.

Which of the following websites is most likely a source of biased and unreliable nutrition information?

- A. purdue.edu
- B. choosemyplate.gov
- C. eatright.org
- D.** dietsnomore4u.com

*Bloom's Level: 3. Apply*

*Learning Outcome: 2.02.02 Discuss how people can become more critical and careful consumers of nutrition information.*

*Section: 2.02*

*Topic: Evaluating nutrition information*

Chapter 02 - Evaluating Nutrition Information

61. A popular fitness magazine has an article about the health benefits of high-fiber diets. If the article's author has the credentials \_\_\_\_\_ after his or her name, the article is likely to be a reliable source of nutrition information.

A.

MD

B.

MS

C.

DN

**D.**

RD

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.03.01 Explain how to identify reliable nutrition experts.*

*Section: 2.03*

*Topic: Evaluating nutrition information*

Chapter 02 - Evaluating Nutrition Information

62. A popular women's magazine has an article about the health benefits of consuming calcium-rich foods. If the article's author has the credentials \_\_\_\_\_ after his or her name, the article is likely to be a reliable source of nutrition information.

A.

DN

B.

MD

C.

PhD

**D.**

RDN

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.02.02 Discuss how people can become more critical and careful consumers of nutrition information.*

*Learning Outcome: 2.03.01 Explain how to identify reliable nutrition experts.*

*Section: 2.02*

*Section: 2.03*

*Topic: Evaluating nutrition information*

Chapter 02 - Evaluating Nutrition Information

63. Which of the following statements is false?

A.

In general, personal websites, such as blogs, are not reliable sources of nutrition information.

B.

Websites with .edu in their addresses are likely to provide reliable nutrition information.

C.

When evaluating claims for dietary supplements that appear at a website, be wary of products that include promises for quick remedies.

**D.**

The Internet is generally a reliable source of nutrition information, because information posted at websites has been peer-reviewed.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.02.02 Discuss how people can become more critical and careful consumers of nutrition information.*

*Section: 2.02*

*Topic: Evaluating nutrition information*

64. A magazine article about weight loss diets includes false information about the process of digestion that uses scientific-sounding terms to make it seem factual. The faulty information is an example of

A. bias.

B. mislabeling.

**C.** pseudoscience.

D. hypothesizing.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.02.02 Discuss how people can become more critical and careful consumers of nutrition information.*

*Learning Outcome: 2.02.03 Identify common "red flags" that are signs of nutrition misinformation.*

*Section: 2.02*

*Topic: Evaluating nutrition information*



65. Which of the following statements is true?

- A. People who describe themselves as nutritionists are registered dietitians.
- B.** In general, registered dietitians are reliable sources of nutrition information.
- C. Pseudoscience is the practice of medicine without proper training and credentials.
- D. In the United States, a person can obtain a Ph.D. in nutrition only by graduating from an accredited institution of higher learning.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.02.02 Discuss how people can become more critical and careful consumers of nutrition information.*

*Learning Outcome: 2.03.01 Explain how to identify reliable nutrition experts.*

*Section: 2.02*

*Section: 2.03*

*Topic: Evaluating nutrition information*

66. A person claims his newly invented device treats cancer without surgery, medication, or other forms of conventional medical therapy. However, people who have used the device report that it was not helpful, and it may have harmed them. According to this information, the inventor's claims and his device are

- A. intuitive.
- B.** quackery.
- C. unbiased.
- D. legal.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.02.02 Discuss how people can become more critical and careful consumers of nutrition information.*

*Section: 2.02*

*Topic: Evaluating nutrition information*

67. Which of the following statements is true?

- A. Registered dietitians are not required to update their knowledge of nutrition and dietetics regularly.
- B. In the United States, only registered dietitians can provide nutrition information legally.
- C.** The First Amendment of the U.S. Constitution often protects people who spread nutrition misinformation.
- D. Pseudoscience is the scientific study of the causation and treatment of chronic diseases.

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.02.01 Explain why there is so much nutrition misinformation.*

*Learning Outcome: 2.03.01 Explain how to identify reliable nutrition experts.*

*Section: 2.02*

*Section: 2.03*

*Topic: Evaluating nutrition information*

68. During a television interview, Dr. Ima Quack provides the following statement. "Most Americans suffer from nutritional deficiency diseases and will develop cancer within the next 10 years because they are not taking my megavitamin formula therapy." Dr. Quack's statement is an example of a(n)

- A. personal observation.
- B. scare tactic.**
- C. medical hypothesis.
- D. intuitive deduction.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.02.03 Identify common "red flags" that are signs of nutrition misinformation.*

*Section: 2.02*

*Topic: Evaluating nutrition information*

69. A magazine advertisement for a weight loss product includes before and after photos of a woman who supposedly lost 50 pounds in 3 weeks while taking the product. The bottom of the ad includes the statement, "Results are not typical." This statement is an example of a(n)

- A. disclaimer.**
- B. placebo.
- C. anecdote.
- D. testimonial.

*Bloom's Level: 2. Understand*

*Learning Outcome: 2.02.03 Identify common "red flags" that are signs of nutrition misinformation.*

*Section: 2.02*

*Topic: Evaluating nutrition information*

70. A team of scientists extracts a chemical that they call "Zombia" from the leaves of a common houseplant. One of the scientists would like to market Zombia as a dietary supplement because it makes people sleepy, when it is injected into them. Based on this information, Zombia

- A. cannot be marketed as a dietary supplement.**
- B. can be marketed as a dietary supplement because it is from a plant.
- C. cannot be marketed as a dietary supplement because its source is widespread in nature.
- D. can be marketed as a dietary supplement, but only if it is promoted as a conventional food item.

*Bloom's Level: 3. Apply*

*Learning Outcome: 2.02.02 Discuss how people can become more critical and careful consumers of nutrition information.*

*Topic: Nutrition basics*

Chapter 02 - Evaluating Nutrition Information

71.

The \_\_\_\_ is responsible for ensuring the safety and effectiveness of medications.

- A. FTC
- B. EPA
- C. NRC
- D. FDA**

*Bloom's Level: 1. Remember*

*Learning Outcome: 2.04.02 Explain how the FDA regulates medicines differently than dietary supplements.*

*Topic: Nutrition basics*