Chapter 02
Evaluating Nutrition Information

Multiple Choice Questions

1. Which of the following statements is false?
A. Disclaimers are clues that a product is not likely to live up to your expectations or the manufacturer's claims.
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. According to scientific research, most dietary supplements provide considerable health benefits.

Bloom's Level: 2. Understand
Learning Outcome: List characteristics of reliable sources of nutrition information.
Section: 02.03
Topic: Dietary supplements
Topic: Evaluating nutrition information

2. Which of the following statements is true?
A. Medicinal herbs must undergo testing for safety and effectiveness by the FDA before they can be marketed.
B.

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

C. Manufacturers of dietary supplements must inform the FTC about negative health reports that may have resulted from the use of their products.
D.

The EPA regulates the labeling of dietary supplement.

Bloom's Level: 1. Remember
Bloom's Level: 3. Apply
Learning Outcome: List characteristics of reliable sources of nutrition information.
Section: 02.03
Topic: Dietary supplements

3.

Which of the following statements is true?

A.

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

B.

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

<u>C.</u>

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

D.

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

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Learning Outcome: Discuss the importance of peer review.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

4.

Which of the following statements is true?

A.

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

B.

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

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.

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

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Learning Outcome: Discuss the importance of peer review.
Section: 02.02
Topic: Scientific method

5.

Which of the following statements is true?

A.

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

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

C.

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

D.

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

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Learning Outcome: Discuss the importance of peer review.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

6.

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 _____ study.

A. retrospective
B. case-control
C. prospective
D. hypothetical

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

7.

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.

analyze the hypothesis

C.

identify relationships between variables

D.

make observations

Bloom's Level: 1. Remember
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

8.

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 2 weeks. At the end of the 2 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 used a standard scientific design for research involving human subjects.

B.

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

C.

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

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

Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

9. 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. Making observations and formulating a hypothesis
<u>C.</u>

Posting findings at the main researcher's Internet website

D. Collecting data and analyzing results

Bloom's Level: 1. Remember
Bloom's Level: 5. Evaluate
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

10.

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.

set up an experimental epidemiological study to test the vitamin D and cancer hypothesis in mice

B.

plan a retrospective study involving at least 5,000 laboratory mice to test the vitamin D and cancer hypothesis in mice

C.

design a double-blind study to test the vitamin D and cancer hypothesis in mice

D.

conduct a controlled laboratory experiment to test the vitamin D and cancer hypothesis in mice

Bloom's Level: 3. Apply
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

11.

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. Submitting an article describing the study to a peer-reviewed journal
B. Posting significant findings at the main researcher's Internet web site
C.

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

D.

Contacting the local news station to report their findings

Bloom's Level: 2. Understand
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

12. 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. prospective
B. introspective
C. retrospective
D. nutritive

Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

13.

A scientist adds 5 mcg of the mineral cadmium to the daily diet of 100 4-week-old laboratory mice. After 12 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. The findings need to be summarized in a research article for submission to a peer-reviewed nutrition journal.
B. The findings are not meaningful or valid because of the way she designed her study.
C. She needs to conduct more tests on the animals' blood, because her findings are incomplete.
D.

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

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Explain the importance of having controls when performing experiments.
Section: 02.02
Topic: Scientific method

14.

A nutrition researcher adds 30 mg of the mineral iron to the daily diet of 50 4-week-old laboratory mice. After 10 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 consider his findings as an observation and redesign the study to include a control group.
C. He should prepare a research article that describes his study and its results for submission to a peer-reviewed
 nutrition journal.
D. He should report his findings to other nutrition scientists, so they can repeat his study and confirm the results.

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

15. 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. case-control
B. retrospective
C.

in vitro

D. prospective

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

16. 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. retrospective
B. macrosomatic
C. case-control
D. prospective

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

17. 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. Observational study
B. Double-blind study
C. Single-blind study
D. Experimental study

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Section: 02.02
Topic: Scientific method

18.

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(n) _____ study.

A. case-control
B.

in vivo

C. double-blind
D. prospective

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

19. 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. Single-blind study
C. Retrospective study
D. Experimental study

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

20. Scientists who investigate lifestyle factors that influence the prevalence of obesity among different population groups are conducting a(n) _____ study.
A. technological
B. pathological
C. epidemiological
D.

in vitro

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

21. 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. Conventional
C. Double-blind
D. Cohort

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Learning Outcome: Describe and provide examples of a case-control study and a cohort study.
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

22.

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. epidemiological
B. uncontrollable
C. introspective
D. conventional

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

23. 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. Interventional
B. Epidemiological
C.

Human in vivo experimental

D. Double-blind

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Nutrition basics

24.

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(n) _____ study.

A. epidemiological
B. double-blind
C.

in vivo

D. conventional

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

25.

Generally, epidemiological studies _____.

A.

involve in vitroexperimentation

B.

cannot determine cause-and-effect relationships

C.

establish causation without experimentation

D.

prove positive correlations

Bloom's Level: 1. Remember
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

26.

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(n) _____.

A.

anecdote

B.

case report

C.

factoid

D.

variable

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Section: 02.02
Topic: Evaluating nutrition information
Topic: Scientific method

27.

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.

in vitro assumption

C.

in vivo report

D.

anecdote

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Section: 02.02
Topic: Evaluating nutrition information
Topic: Scientific method

28. 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: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Section: 02.02
Topic: Evaluating nutrition information
Topic: Nutrition basics
Topic: Scientific method

29.

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.

introspection

B.

anecdote

C.

subjective bias

D.

peer review

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Section: 02.02
Topic: Evaluating nutrition information
Topic: Scientific method

30.

Having a control group enables researchers to _____.

A.

provide specific treatments to participants of the group

B.

explore possible hypotheses for future research efforts

<u>C.</u>

compare findings of the control group with those of the experimental group

D.

avoid using harmful interventions when testing control subjects' responses

Bloom's Level: 1. Remember
Learning Outcome: Explain the importance of having controls when performing experiments.
Section: 02.02
Topic: Scientific method

31.

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.

human subject bias

B.

participant fatigue

C.

an anecdotal report

<u>D.</u>

the placebo effect

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Learning Outcome: Describe and provide examples of a case-control study and a cohort study.
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Learning Outcome: Explain the importance of having controls when performing experiments.
Section: 02.02
Topic: Scientific method

32.

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.

"The ingredients in this product are listed on the label"

B.

"According to the FDA, this product is classified a dietary supplement, because it contains vitamins"

C.

"This product contains sugar and certain artificial color and flavor additives"

<u>D.</u>

"All ingredients in this product have been scientifically tested and clinically proven"

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: List features of unreliable sources of nutrition information.
Section: 02.03
Topic: Evaluating nutrition information

33.

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. Niacin cures pellagra.
B. Kava cures migraine headaches.
C.

Not all doctors are nutrition experts.

D.

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

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: List features of unreliable sources of nutrition information.
Section: 02.03
Topic: Evaluating nutrition information

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

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

B. As children increase their physical activity level, they develop greater muscle mass than children who are less active.
C. When pregnant women gain more weight than average, they are more likely to give birth to babies who are heavier than average.
D. When members of a population increase their consumption of milk and milk products, their risk of bone fractures decreases.

Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

35. Which of the following observations is an example of a positive correlation?
A. When a group of children increases their physical activity levels, the percentage of the children who contract cold infections decreases.
B. When a population's intake of green tea increases, the percentage of lung cancer cases in that population decreases.
<u>C.</u>

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

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

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

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

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

B.

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

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.
<u>D.</u> 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.

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

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

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

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

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

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

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

38. Which of the following observations is an example of a positive correlation?
<u>A.</u> 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 physical activity increases, the percentage of people who develop heart disease decreases.
C. When a population's intake of plant foods decreases, the percentage of obese people in that population increases.
D. When a population's level of vitamin C in white blood cells increases, the percentage of people in the population who develop scurvy decreases.

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

39.

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. anecdotal
C. inverse relationship
D. case-control

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe and provide examples of a case-control study and a cohort study.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

40.

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. Case-control
C. Cohort
D. Experimental

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe and provide examples of a case-control study and a cohort study.
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

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

A.

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

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 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.

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: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

42.

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 the their bowel habits. This is an example of a(n) _____ study.

A. hypothetical
B. uncontrolled
C. double-blind
D. introspective

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe and provide examples of a case-control study and a cohort study.
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
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Section: 02.02
Topic: Scientific method

43. 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. factorial
B. prospective
C. retrospective
D. hypothetical

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

44.

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.

antidotes

B.

supplements

C.

placebos

D.

probiotics

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe and provide examples of a case-control study and a cohort study.
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

45.

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.

distractors

B.

placebos

C.

antidotes

D.

interventions

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe and provide examples of a case-control study and a cohort study.
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

46.

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. probiotics.
B. antidotes.
C. placebos.
D. supplements.

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe and provide examples of a case-control study and a cohort study.
Learning Outcome: Describe the typical steps that scientists generally use to investigate whether a disease has a nutrition- related cause.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

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

Journal of the American Medical Association

B. *National Geographic Magazine*
C.

Men's Journal

D. *Ladies Home Journal*

Bloom's Level: 1. Remember
Learning Outcome: Discuss the importance of peer review.
Learning Outcome: Distinguish between correlation and causation in regard to interpreting the results of scientific studies.
Section: 02.02
Topic: Scientific method

48.

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

A.

Agricultural Research Service (ARS)

B.

Environmental Protection Agency (EPA)

C.

Federal Trade Commission (FTC)

D.

Centers for Disease Control and Prevention (CDC)

Bloom's Level: 1. Remember
Learning Outcome: Describe how the Internet can be used to access reliable nutrition information.
Learning Outcome: List characteristics of reliable sources of nutrition information.
Section: 02.03
Topic: Evaluating nutrition information

49.

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

A.

purport

B.

testimonial

C.

factoid

D.

anecdote

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Learning Outcome: List features of unreliable sources of nutrition information.
Section: 02.03
Topic: Evaluating nutrition information

50.

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.

peer review

B.

a scientifically valid claim

C.

unbiased reporting

D.

a testimonial

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Learning Outcome: List features of unreliable sources of nutrition information.
Section: 02.03
Topic: Evaluating nutrition information

51.

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

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

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe how the Internet can be used to access reliable nutrition information.
Learning Outcome: List features of unreliable sources of nutrition information.
Section: 02.03
Topic: Evaluating nutrition information

52. 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.

MS

B.

MD

C.

RD

D.

DN

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe the roles that registered dietitians play as members of the health care team.
Learning Outcome: Discuss steps a person must take to become a registered dietitian nutritionist.
Learning Outcome: List characteristics of reliable sources of nutrition information.
Section: 02.03
Topic: Evaluating nutrition information

53. 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.

MD

<u>B.</u>

RDN

C.

DN

D.

PhD

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe the roles that registered dietitians play as members of the health care team.
Learning Outcome: Discuss steps a person must take to become a registered dietitian nutritionist.
Learning Outcome: List characteristics of reliable sources of nutrition information.
Section: 02.03
Section: 02.04
Topic: Evaluating nutrition information

54. Which of the following statements is false?

A.

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

B.

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

C.

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

D.

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

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: Describe how the Internet can be used to access reliable nutrition information.
Learning Outcome: List characteristics of reliable sources of nutrition information.
Learning Outcome: List features of unreliable sources of nutrition information.
Section: 02.03
Topic: Evaluating nutrition information

55.

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.

pseudoscience

B.

hypothesizing

C.

mislabeling

D.

bias

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: List characteristics of reliable sources of nutrition information.
Learning Outcome: List features of unreliable sources of nutrition information.
Section: 02.03
Topic: Evaluating nutrition information

56. 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 PhD in nutrition only by graduating from an accredited institution of higher learning.

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Learning Outcome: Describe the roles that registered dietitians play as members of the health care team.
Learning Outcome: Discuss steps a person must take to become a registered dietitian nutritionist.
Section: 02.04
Topic: Evaluating nutrition information

57. 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. legal.
C. unbiased.
D. quackery.

Bloom's Level: 2. Understand
Bloom's Level: 4. Analyze
Learning Outcome: List characteristics of reliable sources of nutrition information.
Learning Outcome: List features of unreliable sources of nutrition information.
Section: 02.03
Topic: Evaluating nutrition information

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

Bloom's Level: 1. Remember
Learning Outcome: List characteristics of reliable sources of nutrition information.
Learning Outcome: List features of unreliable sources of nutrition information.
Section: 02.03
Topic: Evaluating nutrition information

59.

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.

medical hypothesis

B.

scare tactic

C.

personal observation

D.

intuitive deduction

Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: List characteristics of reliable sources of nutrition information.
Learning Outcome: List features of unreliable sources of nutrition information.
Section: 02.03
Topic: Evaluating nutrition information

60.

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.

anecdote

C.

testimonial

D.

placebo

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Bloom's Level: 3. Apply
Bloom's Level: 4. Analyze
Bloom's Level: 5. Evaluate
Learning Outcome: List characteristics of reliable sources of nutrition information.
Learning Outcome: List features of unreliable sources of nutrition information.
Section: 02.03
Topic: Evaluating nutrition information

61.

The ____ is responsible for ensuring the safety and effectiveness of medications _____.

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

Bloom's Level: 1. Remember
Learning Outcome: List characteristics of reliable sources of nutrition information.
Section: 02.03
Topic: Nutrition basics

62.

Which of the followings are symptoms of pellagra?

A.

Mental confusion and scaly skin sores

B.

Blured vision

C.

Constipation

D.

All of above

Bloom's Level: 1. Remember
Learning Outcome: Explain how Joseph Goldberger developed a hypothesis for the cause of pellagra.
Learning Outcome: Explain why it can be difficult for a novel hypothesis to be accepted by the scientific
Section: 02.01
Topic: Nutrition basics

63.

The vitamin effective in treating pellagra is _____.

A.

niacin

B.

biotin

C.

ascorbic acid

D.

vitamin K

Bloom's Level: 1. Remember
Learning Outcome: Explain how Joseph Goldberger developed a hypothesis for the cause of pellagra.
Learning Outcome: Explain why it can be difficult for a novel hypothesis to be accepted by the scientific
Section: 02.01
Topic: Nutrition basics

True / False Questions

64.

Pellagra is an infectious disease.

FALSE

Bloom's Level: 1. Remember
Bloom's Level: 2. Understand
Learning Outcome: Explain how Joseph Goldberger developed a hypothesis for the cause of pellagra.
Learning Outcome: Explain why it can be difficult for a novel hypothesis to be accepted by the scientific
Section: 02.01
Topic: Nutrition basics

Multiple Choice Questions

65.

The physician who studied pellagra in 1914 was _____.

A.

Joseph Lister

B.

Robert Cook

C.

Joseph Goldberger

D.

Joseph Smith

Bloom's Level: 1. Remember
Learning Outcome: Explain how Joseph Goldberger developed a hypothesis for the cause of pellagra.
Section: 02.01
Topic: Nutrition basics

True / False Questions

66.

Dr. Joseph Goldberger's scientific finding about the cause of pellagra was not welcomed by members of the medical community.

TRUE

Bloom's Level: 1. Remember
Learning Outcome: Explain how Joseph Goldberger developed a hypothesis for the cause of pellagra.
Learning Outcome: Explain why it can be difficult for a novel hypothesis to be accepted by the scientific
Section: 02.01
Topic: Nutrition basics