

Chapter 2-Nutrition Tools—Standards and Guidelines

MULTIPLE CHOICE

1. Which of the following is an appropriate use for dietary reference intakes (DRI)?

a.	ensuring that maximum nutrient requirements are met
b.	estimating the nutrient needs of persons with medical problems
c.	planning diets for population groups such as military personnel
d.	estimating the inadequacy of an individual's nutrient intake

ANS: C PTS: 1 REF: Page 30

2. Which of the following standards establishes population-wide average requirements used by nutrition policymakers?

a.	Daily Values (DV)
b.	Recommended Dietary Allowances (RDA)
c.	Recommended Daily Allowances (RDA)
d.	Estimated Average Requirements (EAR)

ANS: D PTS: 1 REF: Page 29

3. Which of the following statements about the dietary reference intakes (DRI) is the most accurate?

a.	They are for healthy individuals.
b.	They are based on review of available testimonials.
c.	They are published by a committee composed of dietitians.
d.	They are maximum requirements, not recommendations.

ANS: A PTS: 1 REF: Page 31

4. For which of the following reasons would a nutrient **NOT** have a tolerable upper intake level (UL)?

a.	No food contains toxic levels of nutrients.
b.	Insufficient data exist to establish a value.
c.	No caution is required when consuming supplements of that nutrient.
d.	It is safe to consume in any amount.

ANS: B PTS: 1 REF: Page 30

5. Which of the following statements about Daily Values (DV) is the most accurate?

a.	They apply to healthy people only.
b.	They are the best way to compare the nutritional content of different foods.
c.	They are not yet required on Canadian nutrition labels.
d.	They are useful as nutrient intake goals for individuals.

ANS: B PTS: 1 REF: Page 33

6. Which of the following recommendations with regard to oils and fats does the most recent version of *Canada's Food Guide* make?

a.	Do not consume butter, lard, or shortening.
b.	Include at least 3 to 4 tbs (45 to 60 mL) daily.
c.	Choose soft margarines that are low in saturated fats and <i>trans</i> fats.
d.	Use vegetable oils such as coconut, olive, and palm kernel.

ANS: C PTS: 1 REF: Page 38

7. Which of the following food groups is located along the innermost arc of the rainbow depiction on the cover of *Canada's Food Guide*?

a.	meats and alternatives
b.	milk and alternatives
c.	vegetables and fruits
d.	grain products

ANS: A PTS: 1 REF: Page 36

8. For which of the following elements of diet planning are exchange systems most useful?

a.	portion control
b.	adequacy
c.	calorie control
d.	balance

ANS: C PTS: 1 REF: Page 49

9. Which of the following is a key nutrient or other food component typically found in vegetables and fruits?

a.	vitamin B ₁₂
b.	<i>trans</i> fats
c.	fibre
d.	proteins

ANS: C PTS: 1 REF: Page 34

10. According to *Canada's Physical Activity Guide to Healthy Active Living*, how long should individuals exercise each day?

a.	at least 50 minutes
b.	at least 40 minutes
c.	at least 30 minutes
d.	at least 20 minutes

ANS: C PTS: 1 REF: Page 34

11. Which of the following statements about the discretionary calorie allowance is true?

a.	The added fat absorbed by the batter in fried chicken contributes to discretionary calories.
b.	It may be spent on foods composed primarily of water.
c.	It is not affected by physical activity level.
d.	It may not be spent on added sugars.

ANS: A PTS: 1 REF: Page 42-43

12. What percentage range of protein in the diet provides adequate energy nutrients for healthy individuals while reducing the risk of chronic diseases?

a.	10–35%
b.	6–25%
c.	15–38%
d.	4–6%

ANS: A PTS: 1 REF: Page 30

13. According to *Canada's Food Guide*, which of the following is one serving?

a.	1 egg
b.	15 mL peanut butter
c.	30 g cooked fish
d.	175 mL cooked legumes

ANS: D PTS: 1 REF: Page 38

14. Which of the following classes of lipids must be listed on food labels?

a.	monounsaturated fat
b.	omega-3 fats
c.	cholesterol
d.	conjugated linoleic acid (CLA)

ANS: C PTS: 1 REF: Page 54

15. How many grams of fibre must a food contain for it to be considered a “very high source” of fibre?

a.	2 grams or more
b.	4 grams or more
c.	6 grams or more
d.	8 grams or more

ANS: C PTS: 1 REF: Page 55

16. Dietary reference intakes (DRI) are defined in order to achieve which of the following goals?

a.	restoration of health
b.	repletion of nutrients in individuals with deficiencies
c.	maximum margin of safety levels
d.	health maintenance

ANS: D PTS: 1 REF: Page 31

17. The appropriate Daily Values for fat, saturated, and *trans* fatty acids, carbohydrates, fibre, sodium, and potassium are based on the Institute of Medicine Dietary Reference Intakes (DRI) report for a diet of how many kilocalories?

a.	1,500
b.	2,000
c.	2,200
d.	2,500

ANS: B PTS: 1 REF: Page 33

18. The Canadian Reference Standard for the %DV of calcium is 1,100 mg. One cup (250 mL) of 2% milk contains about 300 mg of calcium. What is the %DV for this one cup of milk?

a.	20%
b.	23%
c.	25%
d.	27%

ANS: D PTS: 1 REF: Page 33

19. According to the dietary reference intakes (DRI) committee, a diet should contain what percentage of its calories from carbohydrate?

a.	10–35
b.	20–35
c.	45–65
d.	50–70

ANS: C PTS: 1 REF: Page 30

20. As a result of the basic assumptions made by the dietary reference intakes (DRI) committee, their DRI recommendations would apply to which of the following individuals?

a.	Cindy, a 21-year-old college athlete
b.	Harry, a 35-year-old businessman with Type 1 diabetes
c.	Robert, a 20-year-old with cystic fibrosis
d.	Joann, a 35-year-old female vegetarian who smokes

ANS: A PTS: 1 REF: Page 31

21. George is a 35-year-old athlete using nutrient supplements to give him a competitive advantage. Why would you suggest that George become familiar with tolerable upper intake levels (UL)?

a.	so that he does not need to use supplements
b.	so that he does not risk illness from nutrient toxicity
c.	so that he maximizes his athletic performance
d.	so that he does not become deficient in a specific nutrient deemed important for athletes

ANS: B PTS: 1 REF: Page 29

22. You are speaking to a group of consumers about ways to use food labels to choose healthy foods in the grocery store. Which of the following points would you emphasize during your presentation?

a.	understanding the %DV are based on a 3,000-calorie diet
b.	using the grams and numbers on the labels to calculate percentages
c.	comparing the number of food additives in a product
d.	understanding the descriptive terms used on food labels

ANS: D PTS: 1 REF: Page 52-56

23. Which of the following recommendations for men and women over 50 does the most recent *Canada's Food Guide* make?

a.	They should consume 10 glasses of water every day.
b.	They should take a daily Vitamin B ₆ supplement.
c.	They should take Vitamin B ₁₂ supplements.
d.	They should take a daily Vitamin D supplement of 400 IUs.

ANS: D PTS: 1 REF: Page 40

24. The Nutrition Facts panel on a food label lists the following information for amounts per serving: 111 calories; 23 calories from fat. What percentage of the calories are provided by fat?

a.	11%
b.	19%
c.	21%
d.	32%

ANS: C PTS: 1 REF: Page 52-56

25. Which of the following is the best and safest source of phytochemicals?

a.	supplements
b.	herbal remedies
c.	whole foods
d.	organic foods

ANS: C PTS: 1 REF: Page 70

26. Which of the following phytochemicals is contained in whole grains, fruits, vegetables, herbs, spices, teas, and red wine?

a.	lignans
b.	flavonoids
c.	lutein
d.	carotenoids

ANS: B PTS: 1 REF: Page 64

27. Which of the following conditions do Asian people develop more often than people in the West?

a.	osteoporosis
b.	stomach cancer
c.	symptoms related to menopause
d.	heart disease

ANS: A PTS: 1 REF: Page 66

28. Which of the following foods is one of the best sources of lycopene?

a.	garlic
b.	tomatoes
c.	flaxseed
d.	soy products

ANS: B PTS: 1 REF: Page 66

29. What is the name given to the type of laboratory study in which a person is fed a controlled diet, and the intake and excretion of a nutrient is measured?

a.	nutrient study
b.	nutrition requirement study
c.	balance study
d.	deficiency study

ANS: C PTS: 1 REF: Page 31

30. What is the name given to the type of diet planning tool that sorts foods into groups based on their nutrient content?

a.	exchange system
b.	food group plan
c.	group system design plan
d.	eating guide system

ANS: B PTS: 1 REF: Page 42

31. Nutrition amounts and percentages of Daily Values for what number of core nutrients must be listed on the Nutrition Facts panel on a food label?

a.	10
b.	11
c.	12
d.	13

ANS: D PTS: 1 REF: Page 52–54

32. The nutrient content of most foods is listed on the label as percentages of the Daily Values. Which of the following nutrients is expressed as a percentage of the Daily Value?

a.	magnesium
b.	folate
c.	calories
d.	iron

ANS: D PTS: 1 REF: Page 53

33. What is the name for the type of fat in butter, milk, and other dairy products believed by some to have biological activity in the body?

a.	omega 12 fatty acid
b.	essential fatty acid
c.	miso fatty acid
d.	conjugated linoleic acid

ANS: D PTS: 1 REF: Page 62

34. What is the name of the phytochemical contained in black-eyed peas, grapes, lentils, and wine that may inhibit carcinogen activation and cancer promotion?

a.	organosulfur compounds
b.	indoles
c.	tannins
d.	phytic acid

ANS: C PTS: 1 REF: Page 63

35. What is the name of the compound contained in flaxseed that is converted into biologically active phytoestrogens by bacteria in the human intestine?

a.	lignans
b.	lycopene
c.	genistein
d.	lutein

ANS: A PTS: 1 REF: Page 66

36. Which of the following is the name of a liquid yogurt beverage?

a.	keratin
b.	kelphate
c.	kale
d.	kefir

ANS: D PTS: 1 REF: Page 38

TRUE/FALSE

1. Recommendations for vitamins and minerals, carbohydrates, fibre, liquids, proteins, and energy have been published by the dietary reference intakes (DRI) committee.

ANS: T PTS: 1 REF: Page 28

2. Getting 100 percent of the dietary reference intakes (DRI) for every nutrient ensures adequate intake.

ANS: T PTS: 1 REF: Page 31

3. The primary difference between recommendations for nutrient intakes and values set for energy intake is that the value for energy intake is not generous.

ANS: T PTS: 1 REF: Page 33

4. Nutrient contents of packaged foods are stated on food labels as “Daily Values.”

ANS: T PTS: 1 REF: Page 33

5. Many standards published by international and national groups are similar to the dietary reference intakes (DRI).

ANS: T PTS: 1 REF: Page 34

6. The absence of a tolerable upper intake level (UL) for a nutrient implies that it is safe to consume in any amount.

ANS: F PTS: 1 REF: Page 30

SHORT ANSWER

1. Describe how the Dietary Reference Intakes (DRI) Committee establishes DRI values.

ANS:

The first step will be to find out how much of a nutrient that various healthy individuals need. Then the most valid data for use in the work is selected. Different individuals will have different requirements even though they may be of the same age or gender. To set the value, the committee must decide what intake to recommend for everybody. The final decision is to set the value high enough so that 97 to 98 percent of the population will be covered, but not so high as to be excessive.

PTS: 1 REF: Page 31–32

2. Differentiate between the methods used in setting the recommended intake for nutrients versus the recommended energy intake values.

ANS:

Question 1 short answer responds to the DRI nutrient recommendations. As for the recommended energy intake values, or EER (Estimated Energy Requirement), they are set at the average energy intake level predicted to maintain body weight for an individual of a particular age, gender, height, weight, and physical activity level consistent with good health.

PTS: 1 REF: Page 30–34

3. Describe characteristics of the Daily Values listed on food labels and how they should be used in diet planning.

ANS:

The percent Daily Values (%DV) reflect the needs of an "average" person – someone eating 2,000 to 2,500 calories daily. The purpose of having a %DV is to show whether the food has a "lot" or a "little" of a nutrient in a stated amount of food. The Daily Values are ideal for allowing comparisons among foods. Because the Daily Values apply to all people, they are much less useful as nutrient intake goals for individuals.

PTS: 1 REF: Page 33

4. Identify the specific advantages of exchange systems.

ANS:

Exchange systems can be useful to careful diet planners, especially those wishing to control calories, those who must control carbohydrate intakes, and those who should control their intakes of fat and saturated fat. An exchange system may list the estimated carbohydrate, fat, saturated fat, and protein contents of food portions, as well as their calorie values. With these estimates, exchange system users can make an educated approximation of the nutrients and calories in almost any food they might encounter.

PTS: 1 REF: Page 49–50

5. List the food groups in *Canada's Food Guide* and give an example of a nutrient-dense food from each group.

ANS:

Vegetables and Fruit: broccoli
Grains: whole wheat bread
Milk and Alternatives: yogurt
Meat and Alternatives: skinless chicken breast

PTS: 1 REF: Page 38

6. Explain the concept of the discretionary calorie allowance, and describe ways this allowance may be “spent.”

ANS:

The discretionary calorie allowance is the balance of calories remaining in a person's energy allowance after accounting for the number of calories needed to meet nutrient intakes through consumption of nutrient-dense foods. A person with a discretionary calorie allowance to spend may choose to consume the following, within the limits of the allowance:1. Extra servings of the same nutrient-dense foods that make up the base of the diet.2. Fats from two sources.3. Added sugars, such as jams, colas, and honey.4. Alcohol, within limits.5. Omit the discretionary calories from the diet. This is a safe strategy because discretionary calories are not essential for delivering needed nutrients to the diet.

PTS: 1

REF: Page 42–43

7. Defend the statement that foods, not supplements, are the best and safest source of phytochemicals.

ANS:

A moderate approach to the usage of phytochemicals and functional foods is warranted. People who eat the recommended amounts of a variety of fruit and vegetables may cut their risk of many diseases by as much as half. Replacing some meat with soy foods or other legumes may also lower heart disease and cancer risks. In the context of a healthy diet, foods are time-tested for safety, posing virtually no risk of toxic levels of nutrients or phytochemicals. Beneficial constituents are widespread among foods. Don't try to single out one phytochemical for its magical health effect. Instead, take a no-nonsense approach where your health is concerned: choose a wide variety of whole grains, legumes, fruit and vegetables in the context of an adequate, balanced, and varied diet, and receive all of the health benefits that these foods offer.

PTS: 1

REF: Page 62–70