

## Chapter 2 -Nutrition Tools—Standards and Guidelines

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### MULTIPLE CHOICE

1. Which of the following statements best describes the recommended dietary allowances (RDA)?
- They are average nutrient intake goals that meet the needs of nearly all healthy people.
  - They are established when scientific data is insufficient.
  - They are updated annually with new intake values to be followed.
  - They are the minimum requirements needed daily for each nutrient.

ANS: A                      PTS: 1                      REF: Page 32                      BLM: Remember

2. Which of the following standards establishes population-wide average requirements used by nutrition policymakers?
- Daily Values (DV)
  - Recommended Dietary Allowances (RDA)
  - Recommended Daily Allowances (RDA)
  - Estimated Average Requirements (EAR)

ANS: D                      PTS: 1                      REF: Page 32                      BLM: Remember

3. Which of the following statements about the dietary reference intakes (DRI) is the most accurate?
- They are for healthy individuals.
  - They are based on review of available testimonials.
  - They are published by a committee composed of dietitians.
  - They are maximum requirements, not recommendations.

ANS: A                      PTS: 1                      REF: Page 32                      BLM: Remember

4. Which of the following statements about Daily Values (DV) is the most accurate?
- They are based on nutrient recommendations for a 3,000-Calorie diet.
  - They are the best way to compare the nutritional content of packaged foods.
  - They are required on Canadian food labels and restaurant menus.
  - They are useful as nutrient intake goals for all adults.

ANS: B                      PTS: 1                      REF: Page 32                      BLM: Remember

5. As a result of the basic assumptions made by the dietary reference intakes (DRI) committee, the DRI recommendations would apply to which of the following individuals?
- Cindy, a 21-year-old university student
  - Harry, a 35-year-old businessman with Type 1 diabetes
  - Robert, a 20-year-old with cystic fibrosis
  - Joann, a 35-year-old woman who smokes and is a vegetarian

ANS: A                      PTS: 1                      REF: Page 32                      BLM: Higher order

6. Why would you suggest that an adult athlete become familiar with tolerable upper intake levels (UL) prior to taking nutritional supplements?
- to avoid using supplements
  - to prevent illness from nutrient toxicity
  - to maximize athletic performance
  - to prevent deficiencies in specific nutrients important for athletes

ANS: B                      PTS: 1                      REF: Page 32                      BLM: Higher order

7. What does the absence of a tolerable upper intake level (UL) for a specific nutrient indicate?
- All food sources contain acceptable levels of the nutrient.
  - Insufficient data exist to establish a value for the nutrient.
  - Caution is only required when consuming supplements of the nutrient.
  - It is safe to consume in the nutrient in any amount.

ANS: B                      PTS: 1                      REF: Page 33                      BLM: Remember

8. According to the dietary reference intakes (DRI) committee, a diet should contain what percentage of its Calories from carbohydrate?
- 10–35
  - 20–35
  - 45–65
  - 50–70

ANS: C                      PTS: 1                      REF: Page 33                      BLM: Remember

9. What is the term used for studies that measure the body's intake and excretion of a nutrient to find out how much intake is required to balance excretion?
- intake study
  - excretion study
  - balance study
  - requirement study

ANS: C                      PTS: 1                      REF: Page 35                      BLM: Remember

10. Which of the following statements best describes Estimated Energy Requirements (EER)?
- It provides a generous amount of Calories for healthy individuals to consume each day.
  - The UL for energy is set at 2,000 Calories per day.
  - Small amounts of excessive energy consumed daily are of little significance to the body.
  - The value is predicted to maintain body weight for healthy adults.

ANS: D                      PTS: 1                      REF: Page 36                      BLM: Remember

11. 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?
- 1,500
  - 2,000
  - 2,200
  - 2,500

ANS: B                      PTS: 1                      REF: Page 36                      BLM: Remember

12. The %DV for calcium on food labels in Canada 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?
- 20%
  - 23%
  - 25%
  - 27%

ANS: D                      PTS: 1                      REF: Page 36                      BLM: Higher order

13. According to *The Canadian Physical Activity Guidelines for Adults—18–64 years*, how much exercise is recommended for adults to maintain a healthy body?

- a. 20 minutes every day
- b. 30 minutes alternating days
- c. 60 minutes a day
- d. 150 minutes weekly

ANS: D                      PTS: 1                      REF: Page 37                      BLM: Remember

14. Following Canada's Food Guide is intended to reduce your risk for which chronic disease?
- a. osteoporosis
  - b. kidney stones
  - c. heartburn
  - d. arthritis

ANS: A                      PTS: 1                      REF: Page 39                      BLM: Remember

15. Which of the following recommendations does Canada's Food Guide make with regard to oils and fats?
- a. Do not consume butter, lard, or shortening.
  - b. Include at least 3 to 4 Tbsp (45 to 60 mL) daily.
  - c. Choose soft margarines that are low in saturated fats and trans fats.
  - d. Use vegetable oils such as coconut, olive, and palm kernel.

ANS: C                      PTS: 1                      REF: Page 40                      BLM: Remember

16. According to Canada's Food Guide, which of the following food items is considered one food guide 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 40                      BLM: Higher order

17. Which of the following nutrient supplements does Canada's Food Guide recommend daily for healthy adults over the age of 50 years?
- a. iron
  - b. folic acid
  - c. vitamin D
  - d. calcium

ANS: C                      PTS: 1                      REF: Page 42                      BLM: Remember

18. Which of the following recommendations for pregnant women 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<sub>6</sub> supplement.
  - c. They should take a daily Vitamin B<sub>12</sub> supplement.
  - d. They should take a daily folic acid supplement.

ANS: D                      PTS: 1                      REF: Page 42                      BLM: Remember

19. Which of the following is a key nutrient or other food component typically found in vegetables and fruits?
- a. vitamin B<sub>12</sub>
  - b. trans fats
  - c. fibre

d. proteins

ANS: C                      PTS: 1                      REF: Page 45                      BLM: Remember

20. According to Canada's Food Guide, a daily serving of dark green vegetables is recommended in order to meet the intake requirements for which of the following nutrients?
- vitamin C
  - vitamin A
  - folate
  - iron

ANS: C                      PTS: 1                      REF: Page 45                      BLM: Higher order

21. What is the name given to the type of diet planning tool that sorts foods into groups based on their nutrient content?
- exchange system
  - food group plan
  - controlled Calorie allowance
  - discretionary allowance pattern

ANS: B                      PTS: 1                      REF: Page 45                      BLM: Remember

22. Which of the following statements about the discretionary Calorie allowance is true?
- The added fat absorbed by the batter in fried chicken contributes to discretionary Calories.
  - It must be spent on nutrient-dense foods composed primarily of water.
  - The more physical activity completed the fewer discretionary Calories available.
  - It should be consumed even if the person is trying to lose weight.

ANS: A                      PTS: 1                      REF: Page 46                      BLM: Higher order

23. When carbohydrate counting, how many grams of carbohydrate is equivalent to one carbohydrate serving in accordance with The Canadian Diabetes Association meal planning guide approach?
- 5
  - 10
  - 15
  - 20

ANS: C                      PTS: 1                      REF: Page 53                      BLM: Higher order

24. Which of the following classes of lipids must be listed on food labels in Canada?
- monounsaturated fat
  - omega-3 fats
  - cholesterol
  - polyunsaturated fat

ANS: C                      PTS: 1                      REF: Page 55                      BLM: Remember

25. What number of core food components must be listed on the Nutrition Facts panel on a food label in Canada?
- 10
  - 11
  - 12
  - 13

ANS: D                      PTS: 1                      REF: Page 55                      BLM: Remember

26. 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?
- understanding that the %DV are based on a 3,000-Calorie diet
  - using the grams on the labels to calculate percentages for Daily Values
  - comparing the number of food additives in a product
  - understanding the descriptor terms used on food labels

ANS: D                      PTS: 1                      REF: Page 57                      BLM: Higher order

27. How many grams of fibre must a food contain for it to be considered a “very high source” of fibre?
- 2 grams or more
  - 4 grams or more
  - 6 grams or more
  - 8 grams or more

ANS: C                      PTS: 1                      REF: Page 58                      BLM: Remember

28. A diet-related health claim on a food label is acceptable for which of the following health conditions?
- diabetes
  - food allergy
  - high blood pressure
  - celiac disease

ANS: C                      PTS: 1                      REF: Page 59                      BLM: Remember

29. Which of the following nutrients should be limited to 5% or less of the %DV on a food label?
- iron
  - folate
  - calcium
  - sodium

ANS: D                      PTS: 1                      REF: Page 59                      BLM: Higher order

30. What is the name for the type of fat in butter, milk, and other dairy products that has shown some healthful biological activity in animal studies?
- omega 12 fatty acid
  - essential fatty acid
  - miso fatty acid
  - conjugated linoleic acid

ANS: D                      PTS: 1                      REF: Page 63                      BLM: Remember

31. What is the name of the phytochemical contained in black-eyed peas, grapes, lentils, and wine that may inhibit carcinogen activation and cancer promotion?
- organosulfur compounds
  - indoles
  - tannins
  - phytic acid

ANS: C                      PTS: 1                      REF: Page 65                      BLM: Remember

32. Which of the following phytochemicals is contained in whole grains, fruits, vegetables, herbs, spices, teas, and red wine?
- lignans
  - flavonoids
  - lutein
  - carotenoids

ANS: B                      PTS: 1                      REF: Page 66                      BLM: Remember

33. What phytochemical has been attributed to lower rates of osteoporosis and heart disease in Asian people living in Asia?
- phytoestrogen
  - carotenoid
  - flavonoid
  - lycopene

ANS: A                      PTS: 1                      REF: Page 66-67                      BLM: Remember

34. Which of the following foods is a source of lycopene?
- garlic
  - watermelon
  - peanuts
  - red wine

ANS: B                      PTS: 1                      REF: Page 68                      BLM: Higher order

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

ANS: A                      PTS: 1                      REF: Page 68                      BLM: Remember

36. Which of the following sources of phytochemicals is the best and safest for consumers?
- supplements
  - herbal remedies
  - whole foods
  - organic foods

ANS: C                      PTS: 1                      REF: Page 69                      BLM: Remember

37. Which of the following is the name for a fermented liquid yogurt beverage?
- keratin
  - kelphate
  - kale
  - kefir

ANS: D                      PTS: 1                      REF: Page 70                      BLM: Remember

### TRUE/FALSE

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

ANS: T                      PTS: 1                      REF: Page 31

2. 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 33

3. Consuming 100% of the dietary reference intake (DRI) for every nutrient ensures adequate intake.

ANS: T                      PTS: 1                      REF: Page 34

4. The primary difference between recommendations for nutrient intakes and values set for energy intake is that the value for energy intake is generous.

ANS: F                      PTS: 1                      REF: Page 36

5. Canada's Food Guide is intended for healthy people aged 2 years and older.

ANS: T                      PTS: 1                      REF: Page 39

6. The ingredient list on packaged foods must be listed in ascending order by weight.

ANS: F                      PTS: 1                      REF: Page 57

### 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 each identified nutrient is required for various healthy individuals. Different individuals will have different requirements even though they may be of the same age or gender. The most valid research data is selected to support the DRI values. To set the value, the committee must decide what intake to recommend for all healthy people. 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. DRI values are updated periodically in light of new knowledge.

PTS: 1                      REF: Page 34–35

2. Explain how the Estimated Energy Requirements (EER) are established.

ANS:

Estimated Energy Requirements (EER), 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. The values are not generous; they reflect a balancing act to consume enough food to support health and life but not too much energy so as to cause unhealthy weight gain that can lead to associated diseases.

PTS: 1                      REF: Page 36

3. Describe characteristics of the Daily Values listed on food labels and how they should be used for healthy eating.

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 packaged foods; they are much less useful as nutrient intake goals for individuals.

PTS: 1                      REF: Page 36

4. 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 39-41 | 46

5. 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 daily energy needs 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 45–46

6. Explain the difference between nutrient content descriptors and diet-related health claims allowed on food labels in Canada.

ANS:

Nutrient content descriptors are approved wording that may be used to describe the nutrient values of foods. Examples include claims that a food is high in, low in, or free of a specific constituent.

Diet-related health claims are also approved for use in Canada. However, these are claims that link food constituents with specific disease states that meet criteria established by Health Canada.

PTS: 1

REF: Page 57-59

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

ANS:

A moderate approach to the use of phytochemicals is warranted. People who eat the recommended amounts of a variety of vegetables and fruit 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. In most cases, the health benefits observed with intakes of certain foods cannot be ascribed to individual phytochemicals nor purified supplements of these phytochemicals. Avoid singling out any 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 65 | 69