Nutrition and Elimination Practice Test (Sample)

Study Guide

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Questions

1. What is the main purpose of the Dietary Reference Intakes (DRIs)?

A. To recommend food groups for a balanced diet

B. To provide guidance on nutrient intake levels

C. To list the nutritional content of packaged foods

D. To recommend daily calorie intakes

2. What are phytonutrients?

A. Animal proteins with health benefits

B. Plant compounds with antioxidant properties

C. Minerals required for bone health

D. Sugars that provide energy

3. Which nutrient is critical for the body's immune function?

A. Fat

B. Protein

C. Carbohydrates

D. Fiber

4. Which urinary laboratory finding should prompt a nurse to follow up?

A. Protein level of 2 mg/100 mL

B. Urine output of 80 mL/hr

C. Specific gravity of 1.036

D. pH of 6.4

5. Which dietary fat is primarily derived from animal products and tends to raise cholesterol levels?

A. Unsaturated fats.

B. Polyunsaturated fats.

C. Saturated fats.

D. Trans fats.

6. What is a potential complication of improper enteral feeding techniques?

- **A. Increased nutritional absorption**
- **B. Risk of aspiration**
- **C. Weight gain**
- **D. Improved gut health**

7. Micturition is defined as what process?

- **A. Defecation**
- **B. Urination**
- **C. Digestion**
- **D. Resorption**

8. How does the body primarily eliminate waste?

- **A. Through sweat and breathing**
- **B. Through urine and feces**
- **C. Through skin and hair**
- **D. Through digestion alone**

9. Which nutrient is primarily responsible for building and repairing body tissues?

- **A. Carbohydrates**
- **B. Proteins**
- **C. Fats**
- **D. Vitamins**

10. What is the recommended daily intake of water for adults?

- **A. About 1.5 liters for women and 2.5 liters for men**
- **B. About 2.0 liters for women and 3.0 liters for men**
- **C. About 2.7 liters for women and 3.7 liters for men**
- **D. About 3.0 liters for women and 4.0 liters for men**

Answers

1. B
2. B
3. B
4. C
5. C
6. B
7. B
8. B
9. B
10. C

Explanations

1. What is the main purpose of the Dietary Reference Intakes (DRIs)?

A. To recommend food groups for a balanced diet

B. To provide guidance on nutrient intake levels

C. To list the nutritional content of packaged foods

D. To recommend daily calorie intakes

The main purpose of the Dietary Reference Intakes (DRIs) is to provide guidance on nutrient intake levels. The DRIs serve as a comprehensive set of nutrient reference values, which are used to assess and plan dietary intake for individuals and populations. They include several different categories such as Recommended Dietary Allowance (RDA), Adequate Intake (AI), and Tolerable Upper Intake Level (UL), which help individuals understand the amounts of various nutrients necessary for optimal health. This guidance is essential for preventing deficiencies and ensuring proper nutrition across different age groups and population types. While other options, such as recommending food groups or informing on daily calorie intakes, contribute to a balanced diet, they do not encompass the primary objective of the DRIs, which specifically focus on nutrient levels. Listing nutritional content of packaged foods is related to food labeling, which is a separate aspect of nutrition education. The emphasis of the DRIs is fundamentally about establishing the necessary amounts of nutrients rather than the broader aspects of diet planning or food labeling.

2. What are phytonutrients?

A. Animal proteins with health benefits

B. Plant compounds with antioxidant properties

C. Minerals required for bone health

D. Sugars that provide energy

Phytonutrients are plant compounds that have beneficial effects on human health, particularly known for their antioxidant properties. These compounds are not essential nutrients in the way that vitamins and minerals are; however, they can provide various health benefits, including reducing inflammation, bolstering immune function, and combating oxidative stress in the body. Phytonutrients include a wide range of substances, such as flavonoids, carotenoids, and polyphenols, which are found in colorful fruits and vegetables. Their antioxidant capacity helps protect cells from the damaging effects of free radicals, contributing to overall health and potentially reducing the risk of chronic diseases. Other options do not accurately describe phytonutrients: animal proteins refer to the macronutrient source found in animal products, minerals are inorganic substances necessary for bodily functions, and sugars primarily represent carbohydrates that serve as an energy source rather than specific health-promoting compounds derived from plants. Thus, the selection of plant compounds with antioxidant properties clearly highlights the defining characteristics of phytonutrients.

3. Which nutrient is critical for the body's immune function?

A. Fat

B. Protein

C. Carbohydrates

D. Fiber

Protein is essential for the body's immune function because it plays a crucial role in the formation of antibodies and other immune-system components. Antibodies are specialized proteins that recognize and neutralize pathogens such as viruses and bacteria, helping to protect the body from infections. Furthermore, protein is necessary for the production of various immune cells, including T-cells and cytokines, which are vital for a robust immune response. Without adequate protein intake, the body may not be able to effectively mount an immune response, leading to an increased susceptibility to illness and a longer recovery time. While fats, carbohydrates, and fiber are important nutrients for various bodily functions, including energy production, digestive health, and overall well-being, they do not have the same direct role in immune system function as protein. Therefore, focusing on adequate protein consumption is essential for maintaining a healthy immune system.

4. Which urinary laboratory finding should prompt a nurse to follow up?

A. Protein level of 2 mg/100 mL

B. Urine output of 80 mL/hr

C. Specific gravity of 1.036

D. pH of 6.4

A specific gravity of 1.036 indicates a concentrated urine, which can be a sign of dehydration or other underlying conditions affecting fluid balance. Normal specific gravity ranges from approximately 1.005 to 1.030. When the specific gravity exceeds this normal range, it suggests that the kidneys may be conserving water due to lower fluid intake or possible conditions that lead to dehydration. This finding warrants further evaluation to determine the cause and assess the patient's hydration status or kidney function, making it essential for a nurse to follow up on. In contrast, a protein level of 2 mg/100 mL is typically considered within an acceptable range for protein excretion in urine and does not generally raise concern. An urine output of 80 mL/hr is also within normal limits for adults, as typical urine output ranges from about 30 to 60 mL/hour. A pH of 6.4 is considered slightly acidic but still falls within the normal urinary pH range (generally between 4.5 and 8.0) and does not typically necessitate follow-up. Therefore, the specific gravity being elevated is the most significant finding requiring further investigation.

5. Which dietary fat is primarily derived from animal products and tends to raise cholesterol levels?

A. Unsaturated fats.

B. Polyunsaturated fats.

C. Saturated fats.

D. Trans fats.

Saturated fats are primarily derived from animal products such as meat, dairy, and eggs. They are known to contain no double bonds between carbon atoms, which contributes to their solid state at room temperature. When consumed in excess, saturated fats can elevate levels of low-density lipoprotein (LDL) cholesterol in the bloodstream. High LDL cholesterol is associated with an increased risk of heart disease. While unsaturated and polyunsaturated fats are generally considered heart-healthy and can help lower LDL cholesterol levels, trans fats are artificially created and can also negatively impact cholesterol levels. However, saturated fats specifically are the type that predominantly comes from animal-derived foods and have a well-established link to raising cholesterol, making this the correct choice for the question.

6. What is a potential complication of improper enteral feeding techniques?

A. Increased nutritional absorption

B. Risk of aspiration

C. Weight gain

D. Improved gut health

Improper enteral feeding techniques can lead to a significant risk of aspiration, which occurs when food or liquid enters the airway instead of the esophagus during feeding. This can happen if the feeding tube is not positioned correctly in the stomach or if the individual is not in an appropriate upright position during feeding. Aspiration can result in serious complications, such as aspiration pneumonia, which is an infection of the lungs, and can lead to other respiratory issues. The other options, such as increased nutritional absorption and weight gain, imply a positive outcome of enteral feeding, assuming the technique is correct. Improved gut health is also a beneficial expectation from proper enteral feeding practices. However, these benefits are contingent on the techniques being performed correctly; otherwise, the risk of aspiration becomes a critical concern.

7. Micturition is defined as what process?

A. Defecation

B. Urination

C. Digestion

D. Resorption

Micturition is the physiological process of urination, which involves the expulsion of urine from the bladder through the urethra. This process is controlled by the nervous system and includes both voluntary and involuntary components. When the bladder fills with urine, stretch receptors signal the brain, leading to the urge to urinate. The process involves the relaxation of the sphincters and the contraction of the bladder muscles, allowing for the expulsion of urine. Understanding this term is crucial in the context of human biology and nutrition because it relates to the body's waste elimination processes, which are essential for maintaining fluid balance and removing metabolic waste. Proper hydration and nutrition can affect micturition patterns and urinary health, making it an important topic within the study of nutrition and overall bodily functions.

8. How does the body primarily eliminate waste?

A. Through sweat and breathing

B. Through urine and feces

C. Through skin and hair

D. Through digestion alone

The body primarily eliminates waste through urine and feces. This is the main excretory process and involves the urinary and digestive systems working to remove byproducts of metabolism and other waste materials. Urine is produced by the kidneys, which filter blood to remove excess salts, toxins, and urea, a product of protein breakdown. This liquid waste is then excreted through the urethra. Feces, on the other hand, consist of undigested food, bacteria, and other waste materials that are eliminated from the digestive tract through the rectum after being processed in the intestines. While sweating and breathing do play roles in minor waste elimination, they are not the primary methods. Sweat primarily helps regulate body temperature and can expel small amounts of certain toxins, but it is much less significant compared to urinary and fecal excretion when it comes to overall waste removal. Similarly, breathing primarily facilitates the exhalation of carbon dioxide rather than the elimination of solid waste products. Other options such as elimination through skin and hair or digestion alone do not accurately represent the primary waste removal processes in the human body. Therefore, the correct response highlighting urine and feces is essential for understanding the body's excretory systems.

9. Which nutrient is primarily responsible for building and repairing body tissues?

A. Carbohydrates

B. Proteins

C. Fats

D. Vitamins

Proteins are primarily responsible for building and repairing body tissues because they are made up of amino acids, which are the building blocks of various structures in the body, such as muscles, skin, organs, and enzymes. When you consume protein, your body breaks it down into amino acids, which are then used to create new proteins or repair damaged ones. This is crucial for growth, recovery from injury, and overall maintenance of bodily functions. In contrast, carbohydrates serve mainly as a source of energy for the body, fats are important for energy storage, hormone production, and cellular structure, while vitamins play key roles in various biochemical functions and are crucial for health but do not function directly in the building and repair of tissues.

10. What is the recommended daily intake of water for adults?

A. About 1.5 liters for women and 2.5 liters for men

B. About 2.0 liters for women and 3.0 liters for men

C. About 2.7 liters for women and 3.7 liters for men

D. About 3.0 liters for women and 4.0 liters for men

The recommended daily intake of water is generally understood to be about 2.7 liters for women and 3.7 liters for men. This guideline takes into account various factors, including average fluid needs based on body weight, activity level, and environmental conditions. It reflects the total water consumption from all beverages and food, as food contributes to hydration. This recommendation is grounded in studies assessing hydration needs, giving a comprehensive view beyond just pure water intake. It recognizes the differences in fluid requirements between sexes due to factors such as body composition and metabolic rates. Ensuring adequate hydration is essential for maintaining bodily functions, thermoregulation, and overall health. The other choices do not align with this established guideline for daily water intake, as they either underrepresent or overrepresent the suggested amounts. Accurate hydration is crucial for various physiological processes, making it important to follow the recommendations based on scientific evidence.