Portage Learning Nutrition Practice Exam (Sample)

Study Guide

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Questions

1. **What is one health benefit associated with high fiber intake?**

   A. Increased cholesterol levels

   B. Improved digestive health

   C. Higher risk of constipation

   D. Increased calorie intake

2. **Food insecurity is defined as the inability to get enough food or the inadequate quality and variety of food to meet _____ needs.**

   A. nutrient

   B. caloric

   C. health

   D. dietary

3. **The fetal stage occurs from week nine to the end of pregnancy. What is this stage primarily known for?**

   A. Rapid cell division

   B. Development of organs

   C. Period of growth

   D. Formation of the placenta

4. **Which of the following is NOT characteristic of disordered eating?**

   A. Body acceptance

   B. Strict dieting

   C. Binge eating

   D. Excessive exercise

5. **What is the primary vitamin that also functions as a hormone and regulates calcium metabolism?**

   A. Vitamin A

   B. Vitamin C

   C. Vitamin D

   D. Vitamin E

6. Which of the following is NOT one of the four types of external forces that influence eating habits?

A. Health status

B. Genetic predisposition

C. Cognitive

D. Sensory

7. What is functional fiber?

A. Fiber found in whole grains

B. Fiber added to foods to promote intestinal health

C. Fiber that dissolves in water

D. Indigestible fiber in vegetables

8. What substance is high in protein and immune factors and is secreted during the first few days following birth?

A. Formula

B. Colostrum

C. Milk

D. Vitamin D

9. Vitamin C is crucial in the formation of which connective tissue?

A. Elastin

B. Collagen

C. Keratin

D. Chitin

10. Which of the following is an expected physiological change due to usual aging?

A. Increased blood volume

B. Declining lean body mass

C. Enhanced muscle strength

D. Improved metabolic rate

Answers

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

Explanations

1. What is one health benefit associated with high fiber intake?

A. Increased cholesterol levels

B. Improved digestive health

C. Higher risk of constipation

D. Increased calorie intake

High fiber intake is widely recognized for its significant benefits for digestive health. Fiber, particularly soluble fiber, plays a key role in maintaining regular bowel movements by adding bulk to the stool and facilitating its passage through the digestive tract. This helps prevent constipation, promotes a healthy gut microbiome, and can reduce the risk of developing conditions such as diverticulitis and hemorrhoids. Moreover, a diet rich in fiber encourages the growth of beneficial gut bacteria, which can enhance overall gut health and improve nutrient absorption. The inclusion of various sources of fiber, such as fruits, vegetables, whole grains, and legumes, is essential in supporting not only digestion but also other aspects of health, including cardiovascular health and blood sugar regulation.

2. Food insecurity is defined as the inability to get enough food or the inadequate quality and variety of food to meet _____ needs.

A. nutrient

B. caloric

C. health

D. dietary

The correct answer focuses on "nutrient" needs, which is essential when discussing food insecurity. Food insecurity refers not just to the quantity of food available, but equally to the quality and nutrient density of the food consumed. This means that individuals experiencing food insecurity may have access to enough calories but still struggle to obtain foods that provide adequate vitamins, minerals, and other nutrients essential for maintaining health and preventing disease. Nutritional quality is crucial because it affects overall health outcomes. For instance, a diet lacking in essential nutrients can lead to deficiencies that have long-term health effects, even if a person is consuming enough calories. Thus, food insecurity directly impacts one's ability to meet nutrient needs, highlighting the importance of both adequate quantity and quality in the discussion of food access. Other options, such as caloric, health, and dietary needs, while related, do not encapsulate the full spectrum of issues tied to food insecurity. Caloric needs focus solely on the amount of energy consumed, health needs may be broader and not directly tied to the immediate consequences of food availability, and dietary needs encompass a variety of factors but do not specifically emphasize the essential nutrients the question highlights. Therefore, nutrient needs is the most comprehensive and precise choice in this context.

3. The fetal stage occurs from week nine to the end of pregnancy. What is this stage primarily known for?

A. Rapid cell division

B. Development of organs

C. Period of growth

D. Formation of the placenta

The fetal stage, which spans from week nine until the end of pregnancy, is primarily characterized by a period of growth. This stage is essential as it involves significant physical development—increased size, weight gain, and maturation of the body's systems. During this time, the fetus grows rapidly in size and matures enough to survive outside the womb. The complexity of the body becomes more pronounced, with further development of tissues and organs that were initiated in earlier stages. While cell division, organ development, and the formation of the placenta are critical processes that occur at different stages of pregnancy, the fetal stage is specifically focused on the growth and maturation of the already formed structures rather than their initial formation or division. Thus, the defining characteristic of this stage is the extensive growth of the fetus, which prepares it for life after birth.

4. Which of the following is NOT characteristic of disordered eating?

A. Body acceptance

B. Strict dieting

C. Binge eating

D. Excessive exercise

Body acceptance is not characteristic of disordered eating because individuals who experience disordered eating often struggle with negative body image and low self-esteem. Disordered eating behaviors typically involve a preoccupation with weight, body shape, and the food one consumes, which can lead to various unhealthy eating patterns, such as strict dieting, binge eating, and excessive exercise. Strict dieting often leads to a restrictive relationship with food, and binge eating represents an uncontrolled consumption of food, both of which are common traits associated with disordered eating. Excessive exercise can also be a form of compensatory behavior aimed at controlling weight and can contribute to the unhealthy patterns seen in disordered eating. In contrast, body acceptance is about appreciating and feeling comfortable in one's own skin, which opposes the mindset and behaviors typical of disordered eating.

5. What is the primary vitamin that also functions as a hormone and regulates calcium metabolism?

A. Vitamin A

B. Vitamin C

C. Vitamin D

D. Vitamin E

Vitamin D serves as a fundamental component in the regulation of calcium metabolism in the body. Unlike most vitamins, which primarily act as coenzymes or cofactors in metabolic reactions, vitamin D has a unique role as a hormone. It is synthesized in the skin when exposed to sunlight and can also be obtained from dietary sources. Once activated in the body, vitamin D enhances the absorption of calcium and phosphorus in the intestines, plays a crucial role in bone mineralization, and is essential for maintaining proper levels of calcium in the blood. This regulation is vital for various physiological processes, including muscle function and nerve signaling, as well as overall bone health. Consequently, when calcium levels decrease, vitamin D helps to increase absorption from food and also promotes the mobilization of calcium from bones when necessary. The other vitamins listed do not have this significant role in calcium regulation. Vitamin A is primarily involved in vision and immune function, vitamin C is essential for collagen synthesis and acts as an antioxidant, while vitamin E also serves primarily as an antioxidant. None of them have the same hormone-like action regarding calcium metabolism as vitamin D does.

6. Which of the following is NOT one of the four types of external forces that influence eating habits?

A. Health status

B. Genetic predisposition

C. Cognitive

D. Sensory

Genetic predisposition is considered an internal factor rather than an external one. It refers to the biological and hereditary influences on an individual's eating habits and preferences, which are innate and not significantly influenced by external conditions. In contrast, the other types listed are external forces. Health status can affect food choices based on dietary restrictions or recommendations due to medical conditions. Cognitive factors include beliefs, attitudes, and knowledge that shape food preferences and decisions, often influenced by culture or education. Sensory factors involve the perception of food based on taste, smell, texture, and appearance, which can prompt cravings or aversions and are shaped by external stimuli. By understanding these distinctions, one can see that genetic predisposition does not fit into the category of external forces affecting eating habits.

7. What is functional fiber?

A. Fiber found in whole grains

B. Fiber added to foods to promote intestinal health

C. Fiber that dissolves in water

D. Indigestible fiber in vegetables

Functional fiber refers to dietary fiber that has been extracted from plants or synthetically manufactured and is added to foods for its beneficial health effects. Specifically, it is included to promote intestinal health, aid digestive processes, and provide therapeutic benefits beyond its basic structural in foods. The key characteristic of functional fiber is its intentional inclusion in food products to enhance health outcomes, such as improving bowel regularity and overall gut function. Whole grains, while a good source of natural fiber, primarily contain a mix of soluble and insoluble fibers and do not qualify as functional fiber unless specific ingredients are added for targeted health benefits. Similarly, while fibers that dissolve in water, like soluble fiber, have health benefits, being soluble alone does not define functional fiber since not all soluble fibers are added for specific health purposes. Indigestible fiber found in vegetables contributes to dietary intake but is categorized as dietary fiber rather than functional fiber, as it isn't isolated and added to foods in the same context.

8. What substance is high in protein and immune factors and is secreted during the first few days following birth?

A. Formula

B. Colostrum

C. Milk

D. Vitamin D

Colostrum is a thick, yellowish fluid that is produced by the mammary glands in the first few days following childbirth. It is exceptionally high in protein compared to regular breast milk and is rich in various immune factors, including antibodies, which play a crucial role in protecting the newborn from infections. This unique composition is vital for the infant's health, as it helps to establish their immune system during a time when they are most vulnerable. The significance of colostrum lies not only in its high protein content but also in the presence of beneficial factors such as immunoglobulins, lactoferrin, and growth factors, all of which contribute to the overall development and health of the newborn. These components help to ensure that the baby receives the necessary nutrients and immune support they need as they transition from the womb to the external environment. In contrast, formula is a manufactured product designed to simulate breast milk but does not contain the same immune-boosting properties as colostrum. Regular milk, while nutritious, is produced later on and does not have the concentrated immune factors present in colostrum. Vitamin D is an essential nutrient important for bone health but does not encompass the characteristics or functions of colostrum. Thus, colostrum is

9. Vitamin C is crucial in the formation of which connective tissue?

A. Elastin

B. Collagen

C. Keratin

D. Chitin

Vitamin C plays a vital role in the synthesis of collagen, which is the most abundant protein in the human body and a key component of connective tissues. Collagen provides structural support to various tissues, including skin, bones, cartilage, and blood vessels. It is synthesized through a process that requires Vitamin C for the hydroxylation of proline and lysine residues, which is essential for the stability and strength of the collagen triple helix structure. Without adequate Vitamin C, collagen formation is impaired, leading to weakened connective tissues and potentially resulting in conditions such as scurvy, which is characterized by symptoms like joint pain, skin problems, and bleeding gums. The other options listed do not involve Vitamin C in their formation: elastin is a protein that gives elasticity to tissues; keratin is a structural protein found in hair and nails; and chitin is a polysaccharide found in the exoskeletons of arthropods, which also does not rely on Vitamin C for its synthesis.

10. Which of the following is an expected physiological change due to usual aging?

A. Increased blood volume

B. Declining lean body mass

C. Enhanced muscle strength

D. Improved metabolic rate

The declining lean body mass is an expected physiological change associated with the aging process. As individuals age, there is a natural shift in body composition, which often includes a loss of muscle mass and an increase in body fat. This phenomenon, known as sarcopenia, reflects not only changes in muscle fibers but also alterations in metabolic activity and hormonal regulation. This decline in lean body mass can affect strength, mobility, and overall physical function, leading to a higher risk of falls and decreased quality of life. Understanding this change is crucial in developing appropriate exercise and nutrition programs that aim to mitigate the loss of muscle mass and promote overall health in older adults.