

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Answer Key: Fueling Fitness: Foundations for First-Year College Health

Foundational assessment identifying essential macronutrients and micro-elements to support collegiate wellness and long-term vitality.

**1. Which of the following is primarily responsible for the synthesis and repair of tissues, including enzymes and hormones?**

**Answer:** B) Amino Acids (Protein)

Proteins are broken down into amino acids, which serve as the building blocks for muscle repair, hormone production, and cellular function.

**2. Vitamins are classified as 'micronutrients' because the body requires them in smaller quantities compared to carbohydrates.**

**Answer:** A) True

While essential for metabolism and immunity, vitamins (and minerals) are needed in milligrams or micrograms, unlike macronutrients needed in grams.

**3. Iron is a critical mineral that helps \_\_\_\_\_ transport oxygen through the bloodstream to various organs.**

**Answer:** B) Hemoglobin

Hemoglobin is the protein in red blood cells that uses iron to bind and carry oxygen throughout the body.

**4. Which food source provides the highest density of 'heart-healthy' monounsaturated fats?**

**Answer:** A) Extra Virgin Olive Oil

Olive oil is a staple of the Mediterranean diet, high in monounsaturated fats which help lower LDL cholesterol levels.

**5. Hydration needs are static, meaning every adult requires exactly the same amount of water regardless of activity level or climate.**

**Answer:** B) False

Hydration needs vary significantly based on body weight, perspiration rate, environmental temperature, and physical exertion.

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**6. Legumes, such as lentils and black beans, are excellent sources of \_\_\_\_\_, which aids in digestion and blood sugar regulation.**

**Answer:** A) Dietary Fiber

Fiber slows the absorption of sugar and adds bulk to the stool, promoting gut health and stable energy levels.

**7. Which nutrient is the body's preferred and most efficient source of fuel for high-intensity cognitive and physical activity?**

**Answer:** B) Complex Carbohydrates

Carbohydrates are converted into glucose, which is the primary energy source for the brain and muscles during exertion.

**8. A complete protein source is defined as a food that contains all nine essential \_\_\_\_\_.**

**Answer:** B) Amino Acids

Essential amino acids cannot be produced by the body and must be obtained through complete proteins like soy, quinoa, or animal products.

**9. High-density lipoprotein (HDL) is often referred to as 'good cholesterol' because it helps remove other forms of cholesterol from the bloodstream.**

**Answer:** A) True

Higher levels of HDL are associated with a lower risk of heart disease as it transports excess cholesterol to the liver for excretion.

**10. In the context of micronutrients, what is the primary role of electrolytes like potassium and sodium?**

**Answer:** B) Regulating fluid balance and nerve signaling

Electrolytes carry electrical charges that are vital for muscle contractions, heart beats, and maintaining the proper balance of water inside cells.