

Electrolytes Quiz Answer Key PDF

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Which electrolyte is a component of digestive juices?

- A. Sodium
- B. Chloride ✓**
- C. Magnesium
- D. Phosphate

What condition is characterized by low sodium levels in the blood?

- A. Hyperkalemia
- B. Hyponatremia ✓**
- C. Hypercalcemia
- D. Hypomagnesemia

Which of the following is a common method for assessing electrolyte levels?

- A. Urine test
- B. Blood test ✓**
- C. Saliva test
- D. Hair analysis

Which of the following are used to treat dehydration? (Select all that apply)

- A. Oral rehydration solutions ✓**
- B. IV fluids ✓**
- C. Antidepressants
- D. Diuretics

What symptoms might indicate an electrolyte imbalance? (Select all that apply)

- A. Fatigue ✓
- B. Irregular heartbeat ✓
- C. Increased appetite
- D. Confusion ✓

What is the primary source of electrolytes in the diet?

- A. Processed foods
- B. Fruits and vegetables ✓
- C. Sugary drinks
- D. Red meat

Discuss the potential health risks associated with hyperkalemia and how it can be managed.

Hyperkalemia can cause dangerous heart rhythms and muscle paralysis. It is managed by dietary changes, medications, or dialysis.

Identify and explain the significance of two electrolytes involved in nerve signaling.

Sodium and potassium are vital for nerve signaling. They create electrical gradients that allow nerve impulses to travel.

Outline the process and importance of measuring electrolyte levels in a clinical setting.

Electrolyte levels are measured through blood tests to diagnose and manage conditions like dehydration, kidney disease, and electrolyte imbalances.

Provide an example of a situation that could lead to an electrolyte imbalance and describe how it might be addressed.

Severe dehydration from diarrhea can lead to an imbalance. It can be addressed with oral rehydration solutions or IV fluids.

Which electrolyte is crucial for muscle contraction and nerve signaling?

- A. Chloride
- B. Phosphate

C. Calcium ✓

D. Bicarbonate

Explain why maintaining electrolyte balance is crucial for homeostasis.

Electrolyte balance is essential for homeostasis because it ensures proper nerve function, muscle contraction, hydration, and pH balance, all of which are vital for the body's stable internal environment.

Describe the role of potassium in muscle function and how an imbalance might affect the body.

Potassium is crucial for muscle contractions and nerve signaling. An imbalance can lead to muscle weakness, cramps, or even cardiac arrhythmias.

Which electrolyte is primarily involved in maintaining pH balance in the body?

A. Bicarbonate ✓

B. Calcium

C. Magnesium

D. Potassium

What is the normal range for potassium levels in the blood?

A. 135-145 mmol/L

B. 3.5-5.0 mmol/L ✓

C. 8.5-10.2 mg/dL

D. 1.7-2.2 mg/dL

What is the primary function of sodium in the body?

A. Bone health

B. Water balance and blood pressure regulation ✓

C. Energy production

D. pH balance

Which foods are rich in electrolytes? (Select all that apply)

- A. Bananas ✓**
- B. Spinach ✓**
- C. White bread
- D. Yogurt ✓**

Which of the following are functions of electrolytes in the body? (Select all that apply)

- A. Hydration ✓**
- B. Muscle function ✓**
- C. Energy storage
- D. Nerve signaling ✓**

What are potential causes of electrolyte imbalance? (Select all that apply)

- A. Dehydration ✓**
- B. Kidneys disease ✓**
- C. Overeating
- D. Improper diet ✓**

Which electrolytes are important for bone health? (Select all that apply)

- A. Calcium ✓**
- B. Magnesium ✓**
- C. Sodium
- D. Phosphate ✓**