

ELECTROLYTES GUIDE



Electrolytes



What are They?

Electrolytes are minerals found in your body that possess an electric charge. They play a vital role in numerous bodily functions, ensuring that cells and organs operate effectively. While each electrolyte has its unique functions, they collaborate to maintain balance within your body. You can obtain electrolytes from the foods you consume, and they are particularly essential when you are active, sweating, or losing fluids for other reasons, such as during an illness.

Functions

- Hydration: They assist in maintaining fluid balance within and outside your cells.
- Nerve Function: They transmit signals from your brain to your nerves.
- Muscle Function: They facilitate muscle contraction and relaxation, including the heart muscle.
- pH Balance: They regulate the acidity levels in your blood, which is essential for all bodily functions.

How to Keep Them Balanced

- Incorporate a Diverse Diet: A well-rounded diet rich in fruits, vegetables, whole grains, and lean proteins offers a broad spectrum of electrolytes.
- Prioritize Hydration: Consuming adequate water allows your body to utilize electrolytes efficiently.
- Replenish Post-Workout: Sweating results in the loss of electrolytes, particularly sodium and potassium. Enjoy a light snack or beverage containing these minerals after intense exercise.
- Be Cautious with Sugary Sports Drinks: While some sports drinks are fortified with electrolytes, they may also be high in sugar. Choose options with lower sugar content or explore natural alternatives like coconut water.

Signs of Imbalanced Electrolytes:

- Low electrolytes = cause muscle cramps, fatigue, headaches, and nausea.
- High electrolytes (usually from supplements or a high-sodium diet) = high blood pressure,
 confusion, and dehydration.

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The Main Electrolytes

Sodium (Na⁺)

- Function: Regulates fluid balance and is vital for nerve and muscle function.
- Sources: Salted nuts, pretzels, crackers, deli meats, smoked salmon, and canned beans.
- Tip: Excess sodium can elevate blood pressure. Limit processed foods and use salt sparingly.

Potassium (K⁺)

- Function: Supports heart health, muscle contractions, and nerve signalling.
- Sources: Bananas, potatoes, leafy greens, citrus fruits, coconut, avocado, zucchini, mushrooms, halibut, cod, tuna, and legumes.
- Tip: Consuming potassium-rich foods can help balance sodium levels, reducing the risk of hypertension.

Calcium (Ca²⁺)

- Function: Essential for bone strength, muscle function, and blood clotting.
- Sources: Milk, yogurt, almonds, broccoli, and fortified cereals.
- Tip: Calcium works best with Vitamin D, which enhances absorption; sunlight and fortified foods like milk are excellent sources of Vitamin D.

Magnesium (Mg²⁺)

- Function: Aids muscle and nerve function, helps regulate blood sugar, and supports a healthy immune system.
- Sources: Pumpkin seeds, spinach, dark chocolate, nuts, whole grains, and peanut butter.
- Tip: Magnesium may alleviate muscle cramps and enhance sleep quality.

Chloride (Cl⁻)

- Function: Works alongside sodium to balance fluids and is crucial for digestion.
- Sources: Table salt, seaweed, rye, tomatoes, and olives.
- Tip: A balanced diet, particularly one that includes some salt, usually provides sufficient chloride.

Phosphate (PO₄³⁻)

- Function: Collaborates with calcium to build bones and teeth, and is involved in energy production.
- Sources: Meat, fish, poultry, dairy, nuts, and whole grains.
- Tip: Balance phosphate intake with calcium to maintain strong bones.

Bicarbonate (HCO₃⁻)

- Function: Helps maintain pH balance in the blood.
- Sources: Naturally produced by the body; foods that assist in maintaining pH balance include fruits and vegetables.
- Tip: Staying hydrated and consuming a diet rich in fruits and vegetables supports healthy bicarbonate levels.





