

Electrolyte imbalance: An electrolyte imbalance can occur if the body has too much or too little water.

Electrolytes are minerals in the blood, tissues, and elsewhere throughout the body.

What are electrolytes?

Consuming a rehydration drink may help rebalance a person's electrolyte levels.

Electrolytes are minerals, and the body needs them to:

- balance its water levels
- move nutrients into cells
- remove waste products
- allow nerves to send signals
- enable muscles to relax and contract normally
- keep the brain and heart functioning

People get electrolytes from foods and drinks. The kidneys and liver help keep levels of electrolytes balanced.

If a person is eating a variety of foods and drinking enough fluids, electrolytes usually stay at the right levels.

Examples of electrolytes in the human body include:

- sodium
- potassium
- calcium
- magnesium
- phosphate
- chloride
- bicarbonate

When levels of electrolytes become too high or low, this is an electrolyte imbalance. It is not a disease, but it is a sign of another issue in the body.

What causes an electrolyte imbalance?

An electrolyte imbalance can happen if a person is dehydrated or if they have too much water in their body.

The things that most commonly cause an electrolyte imbalance are:

- vomiting
- diarrhea
- not drinking enough fluids
- not eating enough
- excessive sweating
- certain medications, such as laxatives and diuretics
- eating disorders
- liver or kidney problems
- cancer treatment
- congestive heart failure

Symptoms

The body responds to an electrolyte imbalance in a variety of ways. The effects may depend on which electrolyte levels are imbalanced, how severe the issue is, and whether the person has other health conditions.

[One study](#)^{Trusted Source} explored data from 996 patients who had received emergency care for electrolyte imbalance.

The researchers report that the most common symptoms were:

- a fever
- shortness of breath
- confusion
- swelling or bloating

- a rapid heart rate
- an irregular heartbeat

Other symptoms can include:

- irritability
- fatigue
- numbness
- tingling
- muscle weakness
- twitching
- spasms
- rapid blood pressure changes
- seizures

In children

Children have a higher risk of dehydration than adults because of their smaller size and faster metabolism of fluids and electrolytes.

If a child gets sick with severe vomiting or diarrhea, they may develop an electrolyte imbalance that requires medical attention.

A child with an underlying health condition — such as thyroid, heart, or kidney disease — may have a higher risk of an electrolyte imbalance.

If a child is at risk of dehydration or an electrolyte imbalance, seek urgent medical attention.

In older adults

[Studies](#) have found that older adults may be more susceptible to dehydration and electrolyte imbalances than younger adults.

There are many reasons for this, including:

- The kidneys may lose some of their function with age.

- Older adults may take multiple medications, such as diuretics, that can change electrolyte levels.
- They may not get enough to eat or drink due to disability, lack of appetite or thirst, or because they do not have regular access to food and drink.

Caregivers and loved ones should watch older adults closely for signs of dehydration. They may need to help ensure that person is eating and drinking enough.

Signs of dehydration in an older adult can [include](#):

- dryness of the mouth, including the lips and tongue
- sunken eyes
- skin that seems dry and less firm or stretchy
- drowsiness
- confusion or disorientation
- dizziness
- low blood pressure



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Treatment

If a person has been sick with a short bout of vomiting or diarrhea, or has been sweating heavily, drinking water or an over-the-counter electrolyte solution can help restore the balance of electrolytes.

Many oral rehydration drinks are available in stores, and they may be sufficient if a person has a mild imbalance, with no severe symptoms.

Some people have an electrolyte imbalance due to a health condition, such as kidney or heart disease. In this case, a person may be able to correct the imbalance at home over a period of days or weeks. However, a doctor should monitor this process to be sure that the person is getting the correct amounts.

Taking in high levels of electrolytes without a doctor's guidance can create another imbalance and lead to health complications. Also, some people require additional treatment to address the underlying issue.

If a person has a more severe case of kidney disease, they may need dialysis to correct an electrolyte imbalance.

Electrolyte imbalances can be dangerous. If an imbalance is severe, a person may need to receive electrolytes through an intravenous, or IV, line in a hospital.