

June 2023

eSource

## Heat Exhaustion



During extremely hot and humid weather, your body's ability to cool itself is challenged. When the body heats too rapidly to cool itself properly, or when too much fluid or salt is lost through dehydration or sweating, body temperature rises and you or someone you care about may experience a heat-related illness. It is important to know the symptoms of excessive heat exposure and the appropriate responses. The Centers for Disease Control and Prevention (CDC) provides a list of warning signs and symptoms of heat illness, and recommended first aid steps. Some of these symptoms and steps are listed below.

#### **Heat Cramps**

Heat cramps may be the first sign of heat-related illness, and may lead to heat exhaustion or stroke.

Symptoms: Painful muscle cramps and spasms usually in legs and abdomen and Heavy sweating. **First Aid:** Apply firm pressure on cramping muscles or gently massage to relieve spasm. Give sips of water unless the person complains of nausea, then stop giving water. Seek immediate medical attention if cramps last longer than 1 hour.

#### **Heat Exhaustion**

**Symptoms:** Heavy sweating, Weakness or tiredness, cool, pale, clammy skin; fast, weak pulse, muscle cramps, dizziness, nausea or vomiting, headache, fainting,

> Indiana Municipal Electric Association 176 W. Logan St. #225 Duane Richardson, IMEA Executive Director duane@imea.com / (765)366-5506

**First Aid:** Move person to a cooler environment, preferably a well air conditioned room. Loosen clothing. Apply cool, wet cloths or have person sit in a cool bath. Offer sips of water. If person vomits more than once,

Seek immediate medical attention if the person vomits, symptoms worsen or last longer than 1 hour

#### **Heat Stroke**

- **Symptoms:** Throbbing headache, confusion, nausea, dizziness, body temperature above 103°F, hot, red, dry or damp skin, rapid and strong pulse, fainting, loss of consciousness.
- First Aid: Call 911 or get the victim to a hospital immediately. Heat stroke is a severe medical emergency. Delay can be fatal. Move the victim to a cooler, preferably air-conditioned, environment. Reduce body temperature with cool cloths or bath. Use fan if heat index temperatures are below the high 90s. A fan can make you hotter at higher temperatures. Do **NOT** give fluids. Using a fan to blow air in someone's direction may actually make them hotter if heat index temperatures are above the 90s.











Needing Assistance?

# Electrolyte Imbalances: Causes, Symptoms, Treatments, and Prevention

An electrolyte imbalance can be the root of many common health issues. Often, people are not even aware of electrolyte imbalances since they rectify themselves without serious repercussions. However, a persistent lack or excessive amount of electrolytes can harm the body.

#### 1. What are Electrolytes?

Electrolytes are minerals that conduct electricity and dissolve in water. Once in the body, they participate in various actions such as energy production, hydration, heart rate, and muscle contraction. They are also responsible for regulating blood pH and clotting and transmitting signals to and from the heart and nerves.

#### 2. What Causes Electrolyte Imbalances?

An electrolyte imbalance occurs when electrolyte levels are too high or, more commonly, too low. Dehydration is the most common cause since a lack of water also means a lack of electrolytes. Some of the most vital electrolytes are calcium, potassium, sodium, and magnesium. These can be lost when ill -- vomiting, diarrhea, and fever drain the body of fluids. Other causes of dehydration and a loss of electrolytes include sweating from exertion, medication such as diuretics, and an internal pH imbalance.

#### 3. What are the Symptoms?

Some symptoms of an electrolyte imbalance include:

- Muscle aches or spasms
- Cramping
- Restlessness
- Heart palpitations
- Tiredness or fatigue



#### • Dizziness or irritability

These symptoms may be minor and undetectable, but without correction, they can lead to more serious issues. Seizures, severe headaches, and convulsions can all occur when the body lacks vital electrolytes for a prolonged period.

#### 4. Treatment: Rehydrate Your Body

Rehydration is the most effective way to replenish electrolytes. Drinking water helps, but water alone won't give the body the electrolytes it needs. Drinks like Gatorade and Pedialyte contain the necessary electrolytes to rehydrate quickly and efficiently, without washing away what minerals remain. Rehydration should be done with caution, however, since over-diluting and even water intoxication can occur when one ingests too much water too quickly.

#### 5. Treatment: Increase Calcium

Since calcium is a vital electrolyte, increasing the amount of this mineral in your system can help replenish what was lost. Green leafy vegetables, dairy products, and seafood such as salmon and sardines are rich in calcium and can supplement the diet as soon as a doctor diagnoses an electrolyte deficiency. Calcium plays a role in muscle contractions and cell division. Calcium supplements are also an option to up electrolyte levels, but everyone should consult a doctor

(Continued, Page 3)

Indiana Municipal Electric Association 176 W. Logan St. #225

Needing Assistance?
Please Contact Us!

Duane Richardson, IMEA Executive Director duane@imea.com / (765)366-5506









#### 6. Treatment: Potassium-Rich Foods

Potassium is an electrolyte easily depleted when a person is dehydrated. The mineral regulates muscle contractions, so a lack can cause muscle spasms and other side effects. Other than the obvious choices like bananas, spinach, sweet potatoes, prunes, and avocados are all excellent foods that can restore potassium levels. Hypokalemia, low potassium levels in the blood, can be dangerous in the long term and develop due to excessive fluid loss, so it is wise to replenish this vital electrolyte soon after illness or physical activity.

#### 7. Treatment: Increase Sodium Levels

Low sodium levels can cause issues such as hyponatremia, which is characterized by low sodium levels in the blood. The condition can lead to seizures, coma, and even death when untreated. While some people may require intravenous solutions to combat serious sodium deficiencies, certain foods can replenish less severe losses. Coconut water and sports drinks, as well as foods that naturally contain healthy sodium levels, like meats, are good choices to improve sodium levels. Stocking up on sodium by way of processed foods, however, is not a good idea, as these foods will do more harm than good.

#### 8. Treatment: Foods High in Magnesium

Magnesium is necessary for bodily regulation, and it aids calcium in building stronger bones. Foods that contain magnesium include:

- **Almonds**
- Kale
- **Pecans**
- **Molasses**

**Needing Assistance?** 

Please Contact Us!

There are also many magnesium-boosting supplements available that can boost these levels steadily and continuously.

#### 9. Electrolyte Depleters

Certain activities and foods can deplete electrolytes. Drinking too much water can flush the body and cells, especially after sweating. Kidneys that function improperly can also deplete electrolytes, as they may retain or flush too many. Cancer treatments such as chemotherapy can cause these issues, as well. While some of these causes are unavoidable or not easily rectified, being aware of them ensures individuals recognize the earliest signs of deficiency.

#### 10. Prevention Tips

The best way to monitor electrolytes is to be cognizant of fluid intake versus output. Experts recommend people urinate three to four times and drink about eight cups of water each day. When ill, these levels should remain the same or be slightly increased, due to the amount of water your body is using and expelling through sources like vomiting, diarrhea, and even a fever. When exercising or sweating profusely, individuals should consume electrolyte water and juices and take note of any small changes in energy levels and muscle or heart activity.

Article by: Facty Health



Indiana Municipal Electric Association

duane@imea.com / (765)366-5506









### 2023 IMEA Annual Business Meeting & Vendor Expo

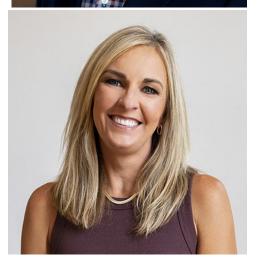
October 3 - 5, 2023

#### Meet our Featured Keynote Speakers

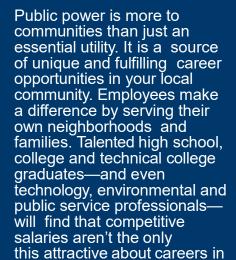
Safety / Mutual Aid Roundtable / Panel Discussion: Duane Richardson & Members



Rise Above Chaos & Discover Significance



Trací Cheatham **B23** Strategies Harness Your Influence / The Future Work

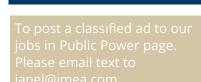


Jobs

**Public** 

Power

in



public power.



Janelle Dewolf, B23 Strategies

Harness Your Influence / The Future of Work

Register Today! www.imea.com/events

Come share in networking with your neighboring utilities as well as taking part in our vendor expo offering the best in stateof-the-art products and services!

Do you have important news or photos that you would like to share in our bi-weekly newsletters? Please email all news and photos to ianel@imea.com

INDIANA MUNICIPAL ELECTRIC

ASSOCIATION

176 W. LOGAN ST. #225

NOBLESVILLE, IN. 46060

765.366.5506 | <u>imeainfo@imea.com</u>

Leadership. Innovation. Collaboration