

Heat Prevention, Symptom and Treatment Information

As heat and humidity scorch the country, emergency physicians are sending out an alarm about the dangers of dehydration and heat illness. Every year hundreds of people die across the country due to heat-related-causes, but the good news is education may be the key to saving lives.

"Heat-related illnesses are 100 percent preventable. Research shows people don't drink enough, especially when active in the heat, which explains why many heat-related problems like dehydration occur," according to Randy Eichner, M.D., professor of medicine and team internist for the University of Oklahoma.

"The first step is to drink plenty of fluids," said Dr Moorehead M.D., president, American College of Emergency Physicians. "It's important to bring fluids with you, and when active or exercising to drink before, during and after you've stopped."

When it comes to what to drink Dr. Eichner says, "Sports drinks encourage active people to drink more because of the added flavor and sodium — people actually drink more than they would with plain water — enabling them to fully rehydrate."

Here are some tips to prevent dehydration and other heat-related illnesses:

- ✔ Avoid caffeinated beverages and alcohol — these fluids dehydrate the body rather than hydrate like water and sports drinks.
- ✔ Avoid carbonated beverages which can cause bloating and keep people from drinking enough fluid to rehydrate.
- ✔ Wear light colored, absorbent, loose fitting clothing.
- ✔ Stay in cool, shaded areas when possible; protect your skin with sun block.

"Few people know in hot and humid conditions an active person can become dehydrated in just 15 minutes," said Dr. Moorehead. As little as 1-point-3-pounds of fluid loss for a 130 pound person can lead to early fatigue and increase the risk of dehydration."

The symptoms of dehydration include:

- Dry lips and tongue
- Apathy and lack of energy
- Muscle cramping
- Bright-colored or dark urine

If left untreated dehydration can escalate to heat exhaustion or heat stroke that can be deadly. The main symptoms for these include:

- Fatigue
- Dizziness
- Nausea or vomiting
- Headache
- Rapid and shallow breathing
- High temperature
- Rapid heart beat
- Decreased alertness or complete loss of consciousness

If you experience these symptoms doctors say stop activity immediately and cool down in the shade or an air-conditioned building.

Symptoms of **early or mild dehydration** include:

- flushed face
- extreme thirst, more than normal or unable to drink
- dry, warm skin
- cannot pass urine or reduced amounts, dark, yellow
- dizziness made worse when you are standing
- weakness
- cramping in the arms and legs
- crying with few or no tears
- sleepy or irritable
- unwell
- headaches
- dry mouth, dry tongue; with thick saliva.

In severe dehydration, these effects become more pronounced and the patient may develop evidence of hypovolaemic shock, including: diminished consciousness, lack of urine output, cool moist extremities, a rapid and feeble pulse (the radial pulse may be undetectable), low or undetectable blood pressure, and peripheral cyanosis. Death follows soon if rehydration is not started quickly.

Symptoms of **moderate to severe dehydration** include:

- low blood pressure
- fainting
- severe muscle contractions in the arms, legs, stomach, and back
- convulsions
- a bloated stomach
- heart failure
- sunken fontanelle - soft spot on a infants head
- sunken dry eyes, with few or no tears
- skin loses its firmness and looks wrinkled
- lack of elasticity of the skin (when a bit of skin lifted up stays folded and takes a long time to go back to its normal position)
- rapid and deep breathing - faster than normal
- fast, weak pulse

What are the symptoms of heat stroke?

The following are the most common symptoms of heat stroke, although each individual may experience symptoms differently. Symptoms may include:

- headache
- dizziness
- disorientation, agitation or confusion
- sluggishness or fatigue
- seizure
- hot, dry skin that is flushed but not sweaty
- a high body temperature
- loss of consciousness
- rapid heart beat
- hallucinations

How is heat stroke treated?

It is important for the person to be treated immediately as heat stroke can cause permanent damage or death. There are some immediate first aid measures you can take while waiting for help to arrive.

- Get the person indoors.
- Remove clothing and gently apply cool water to the skin followed by fanning to stimulate sweating.
- Apply ice packs to the groin and armpits.
- Have the person lie down in a cool area with their feet slightly elevated