

BLOG

Avoiding and Surviving Heat Related Illnesses

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Climate change and extreme heat is one of the leading causes of weather-related deaths in the United States. This summer has seen dangerous heat waves develop across the entire country putting employees and individuals participating in outdoor activities at risk for heat related illnesses. Once rare in much of the country, persistent extreme heat climate events are now increasingly common. This past July, for instance, has been logged as the world's hottest month ever recorded.



Heat related illnesses such as heat exhaustion and heatstroke can be life threatening. Life-threatening events can occur in relatively short timeframes as individuals often miss signs they're too hot or dehydrated. As extreme heat and high humidity become more frequent, employers, school systems, and sponsors of outdoor events incur a higher level of responsibility to protect their workers, students and participants. .

Spotting Signs of Heat Related Illnesses

There are three main types of heat related illnesses:

1. *Heat cramps* are minor muscle tremors and spasms caused by severe dehydration, loss of water and lower sodium levels through sweating and perspiration
2. *Heat exhaustion* is a flu-like condition that often presents as an altered mental state, mild disorientation or even complete loss of consciousness that can lead to fatal heatstroke.
3. *Heatstroke*, the most severe illness, happens when the body's internal cooling system has failed and sometimes results in life-threatening thermal injury to the body.

Avoiding Heat Illness

An ounce of prevention can help avoid heat exhaustion and heatstroke. It is easier to prevent heat illness than to treat it once symptoms develop.

- Anyone performing any type of physical activity in hot weather, should wear loose fitting cloths and some type of hat, preferably with a wide brim
- Ensure hydration by drinking plenty of water every 20 to 30 minutes. Do not wait until thirsty to

drink.

- Periodic breaks in the shade or other cool spots are a must, removing any type of outdoor or protective equipment
- Properly time activities to the coolest times of the day, early morning or evening, when temperatures are cooler or less severe

Providing Treatment

Mild heat emergencies can quickly escalate to severe heat exhaustion and heatstroke if left untreated. Left untreated, heatstroke can cause brain damage, organ failure, and death. It is therefore crucial to treat a heat related illness as soon as possible by helping an affected person cool down.

- Immediately get the person out of direct heat and check for signs of shock. Find a shady spot, take a cool shower, or sit in an air-conditioned room.
- If possible, take their temperature. Humans hit heat exhaustion at 101 degrees and heatstroke at 104 degrees.
- Offer small sips of water or another hydration liquid, preferably with electrolytes. Avoid any alcoholic or caffeinated drinks.
- Use a fan or other device to blow cool air
- Place water-soaked towels on the head, neck, and shoulders

Avoid using ice and ice-cold water to avoid putting the person into shock

Put a Heat Illness Prevention Plan in place

Any organization having outdoor work or athletic events needs to address and protect workers and participants from heat illness, and take precautions and preventive measures including a well thought out heat illness prevention plan. The prevention plan should be in writing, must comply with state and local codes, explain how companies will respond to a heat event, detail emergency medical services, and ensure that, if there is a medical emergency, first responders are available and trained to quickly respond to an emergency.

Key elements of a Heat Illness Prevention Plan include:

- **Monitor the weather.** Supervisors and managers should be trained and instructed to check an extended weather forecast before each shift or event and then monitor the weather throughout the day. If possible, work schedules and athletic events should be adjusted to stay out of the heat during the hottest periods of the day.
- **Acclimatization.** Heat acclimatization allows employees and participants to adapt to heat conditions as temperatures begin to rise. Generally, it takes up to two weeks of gradual exposure to heat conditions to achieve acclimatization.
- **Provisions of Water.** When extreme heat conditions exist (indoor or outdoor) and risk factors for heat illness are high, it is critical to have clean, fresh, and cool potable water readily available for workers and/or athlete participants.
- **Access to Shade.** It is important to assure there are plenty of shaded areas large enough to allow individuals to cool off without crowding each other in a confined space. Canopies, umbrellas, or temporary structures are good alternatives to block direct sunlight if natural shade is not available.

- **Training and Competency Assessment.** Training needs to be provided to all employees and athletic participants to fully understand the risk factors for heat illness, the importance of acclimatization, and spotting symptoms of heat illness.

Need additional resources?

- <https://www.osha.gov/heat>
- <https://www.weather.gov/safety/heat>
- <https://www.weather.gov/>

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