

Heat Stroke Prevention Tips

Heatstroke occurs when the body reaches a temperature of 104 degrees or higher, and symptoms can include confusion, altered speech, nausea or vomiting, rapid breathing, and a racing heartbeat, among other symptoms. The condition is usually a result of prolonged exposure to high temperatures or physical exertion in high temperatures. Take these steps to prevent heatstroke during hot weather:

- Wear loose fitting, lightweight clothing. Wearing excess clothing or clothing that fits tightly will not allow your body to cool properly.
- **Protect against sunburn.** Sunburn affects your body's ability to cool itself, so protect yourself outdoors with a wide-brimmed hat and sunglasses and use a broad-spectrum sunscreen with an SPF of at least 15.
- **Drink plenty of fluids.** Staying hydrated will help your body sweat and maintain a normal body temperature (avoid caffeine).
- **Take extra precautions with certain medications.** Be on the lookout for heat-related problems if you take medications that can affect your body's ability to stay hydrated and dissipate heat.
- Take it easy during the hottest parts of the day. Try to schedule physical labor for cooler parts of the day, such as early morning or evening.
- Get acclimated. Limit time spent working or exercising in heat until you are conditioned to it.
- **Be cautious if you are at increased risk.** If you take medications or have a condition that increases your risk of heat-related problems, avoid the heat and act quickly if you notice symptoms of overheating.

If heatstroke does occur, the condition requires emergency treatment. Untreated heatstroke can quickly damage your brain, heart, kidneys, and muscles.





Hot Weather Safety Tips

According to the National Institute for Occupational Safety and Health (NIOSH), heat stroke is the most serious heat-related disorder and occurs when the body can no longer control its temperature. The body temperature can rise to 106 degrees Fahrenheit or higher within 10 to 15 minutes and heat stroke can cause death or permanent disability if emergency treatment is not provided. Practicing the following safety tips will help you to avoid heat stroke or a heat related illness.

- **Stay hydrated**. Drink plenty of fluids; drink about 16 ounces before starting and 5 to 7 ounces every 15 or 20 minutes.
- Avoid dehydrating liquids. Alcohol, coffee, tea, and caffeinated soft drinks can hurt more than help.
- **Wear protective clothing.** Lightweight, light-colored, and loose-fitting clothing helps protect against heat. Change clothing if it gets completely saturated.
- Pace yourself. Slow down and work at an even pace. Know your own limits and ability to work safely in heat.
- **Schedule frequent breaks.** Take time for rest periods and water breaks in a shaded or air-conditioned area.
- **Use a damp rag.** Wipe your face or put it around your neck.
- Avoid getting sunburn. Use sunscreen and wear a hat if working outside.
- **Be alert to signs of heat-related illness.** Know what to look for and check on other workers that might be at high risk.
- Avoid direct sun. Find shade or block out the sun if possible.
- Eat smaller meals. Eat fruits high in fiber and natural juice. Avoid high protein foods.





Know the Signs of Dehydration

Your body will often tell you if you are dehydrated. If you experience any of the following signs of dehydration, you should try to replenish your fluids as soon as possible.

- Yellow or dark-colored urine: If you have trouble knowing whether you are hydrated, pay attention to the color of your urine. Yellow or dark-colored urine usually means that you are not drinking enough water and are dehydrated. The goal is to take in enough fluids so that your urine stays pale in color, and you feel the need to urinate every 2-4 hours. Urinating significantly less often than you normally do is also a sign of dehydration.
- **Thirst:** Being thirsty is often the first sign that you need to drink more water. For most people, drinking to quench thirst is an effective way to stay hydrated. Also, when we sweat a lot while working in the heat, we may need to drink more than the amount required to quench thirst.
- **Headache:** Dehydration headaches can range from mild to as severe as a migraine. When you are dehydrated, your brain can shrink slightly and pull away from the skull. This causes pain, resulting in a headache. Once hydrated, the brain goes back to its normal size, and the headache subsides.
- Fatigue: Mild dehydration has also been linked to fatigue and sleepiness during normal daily activities.
- **Muscle cramps:** Loss of fluid and sodium through sweat can cause the muscles to contract or spasm. To prevent muscle cramping, drink enough fluid. Generally, the sodium in our food is enough, but if you know you are going to have an active day in the heat, drinking a sports drink may be of benefit.
- **Low blood pressure:** Dehydration can cause a drop in blood pressure, which may make you feel dizzy or light-headed. When you are dehydrated, your blood volume decreases, which lowers pressure on the artery walls, which can result in low blood pressure.
- **Skin changes:** Your skin cells need water to function properly. Skin turgor is the skin's ability to change shape and return to normal. Dehydration causes your skin to lose its turgor or elasticity. When well-hydrated skin is pinched, it should return to its normal shape immediately. If it does not, it is a sign that you are dehydrated.

Symptoms of Heat Stress

The following diagram presents various HRIs and the symptoms that correspond with each.

Heat rash Prickly heat	Signs and symptoms:	Red spots on the skin that resemble blisters; prickly or itchy sensation.
	What's happening:	Sweat glands become clogged and inflamed when sweat cannot evaporate; happens in humid conditions and/or when clothing traps sweat against the skin.
Heat cramps	Signs and symptoms:	Spasms of the legs, arms or abdomen; often accompanied by heavy sweating and thirst; happens after physical labor.
	What's happening:	A loss of body salt, through sweat, causes water to rush into the muscles, resulting in cramping or spasms.
Early heat illness	Signs and symptoms:	Fatigue; dizziness; irritability; inability to concentrate; impaired judgment.
	What's happening:	Blood flow to the brain is reduced as the body redirects blood to release heat from the skin. $ \\$
Heat syncope	Signs and symptoms:	Sudden dizziness; pale complexion; moist skin; normal body temperature.
	What's happening:	Blood flow to the brain is reduced as the body redirects blood to release heat from the skin.
Heat exhaustion	Signs and symptoms	Excessive sweat; dry mouth; extreme thirst; headaches or feeling dizzy; lightheadedness; mood changes or irritability; rapid breathing; chills; fainting or weakness; heat cramps; nausea; decreased or dark-colored urine; pale; moist skin; fatigue.
	What's happening:	Less blood flow to the brain, resulting from blood flow to the body's surfaces; this results in less oxygen reaching the brain and therefore lightheadedness, headaches, and mood changes; the body's temperature regulator is still functioning, trying to cool the body.
Heat Stroke	Signs and symptoms:	Often occurs suddenly; extremely high body temperatures; lack of sweating; confusion or aggressive behavior; seizures or convulsions; coma in severe cases; unresponsiveness to clapping; dizziness; fast pulse; dry, hot, red skin.
	What's happening:	Over 150°F, the body stops sweating and the temperature-regulating system stops functioning due to too much heat; blood flow to the brain is significantly reduced; rising internal temperatures risk damage to organs including the heart, brain, central nervous system, liver and kidney; brain damage or death can result.

