

Heat Illness and Injury Prevention Fact Sheet

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During hot weather, employees can suffer heat-related illnesses, injuries, or death. Workers are in danger of heat illness that threaten vital organs when their body heat rises quickly and sweating alone is not enough to cool them.

Heat illness can cause other injuries. Workers can fall after getting dizzy, slip because their hands are sweaty, or get burns from steam or hot surfaces. All workers are at risk of getting hurt by heat, no matter their age or fitness level.

The law says employers must give workers a safe workplace free from risks that may cause death or serious harm. That includes providing protection from extreme heat for workers, such as those who:

- perform physical labor;
- work in direct sun;
- work indoors near radiant heat sources (heat coming from hot surfaces like pipes); or
- work in spaces with little airflow.

Training employees on how to avoid and react to heat illnesses can prevent worker injuries and fatalities.

Prevent Heat Illness and Injury

Provide Training

Before beginning hot work, train employees and supervisors about the importance of:

- **watching out for co-workers** on the job and quickly reporting any signs of heat illness;



- **knowing the signs of heat illness**, whom to report it to, how to administer first aid, and ways to contact emergency services;
- **recognizing ways to limit heat-related illness risks**, such as ensuring employees drink adequate amounts of water and monitor the quantity and color of their urine (dark or no urine may indicate dehydration or a more severe heat-related illness);
- **realizing how factors outside the job can make it harder to recover** from work-related heat stress, including factors like an employee's age, poor physical conditioning, or use of alcohol or drugs;
- **caring for and using heat-protective clothing and personal protective equipment (PPE)**, and understanding how these items, along with hard work, can add to a worker's heat load; and

- **slowly becoming used to working in hot conditions** after being away from the job or starting a new job position.

Before allowing employees to begin hot work, train supervisors how to:

- get workers used to working in hot conditions;



- react when a worker shows signs of a heat-related illness;
- follow emergency response procedures;
- watch for and react to hot-weather reports; and
- ensure workers drink fluids and take rest breaks when needed.

Know and Respond to Signs of Heat Illness

Heat Rash (also known as prickly heat)

Cause: often happens in hot humid environments where sweat does not readily evaporate.

Response:

- Have the person stop physical activity, move to a cool place, and remove extra clothing in the affected area.
- Bathe and dry the affected skin.
- Seek medical care if the rash does not go away once the skin is cool.

Heat Cramps

Causes & Symptoms:

- caused by heavy work and sweating that leads to loss of fluids and salts in muscles;
- can start during or after working hours;
- often the first sign that the body is having trouble with the heat;
- pains and spasms, usually in the arms, legs, or abdomen.

Response:

- Have the person stop physical activity, move to a cool place, and remove excess clothing, including shoes and socks.
- Replace the person's lost electrolytes by having them drink cool water or a watered-down sports drink. Stop if the victim is nauseated.
- Wait for cramps to go away before the person goes back to work. Get medical help if cramps last longer than one hour or if the worker has heart problems or is on a low-sodium diet.

Fainting

Cause: may happen when a person stands in the heat after not moving for a long time.

Response:

- Move the person to a cool, shaded area.
- Provide cool water to drink.
- Fan the person and apply a wet cloth to the skin to cool the person.
- Lay the victim on the left side if the person feels nauseous.
- Lay the victim on the back and raise the legs above the heart (6 to 8 inches) if he or she is dizzy or unconscious.
- Loosen and remove heavy or tight clothing.
- Stay with the victim until he or she recovers or until help arrives.
- Call 911 for emergency help if the victim does not feel better in a few minutes or does not regain consciousness within one minute.

Heat Exhaustion

Causes & Symptoms:

- the body's reaction to losing body fluids and salts from sweating;
- can occur several days after exposure; and
- may result in heavy sweating, nausea, dizziness, fainting, weakness, tiredness, thirst, irritability, confusion, paleness, muscle cramps, or headache.

Response:

- Move the person to a cool place to sit or lie down. Loosen or remove clothing and fan the person.
- Have the person take a cool bath or put wet cloths or cool packs on him or her.
- Have the person sip water slowly.
- Do not let the person return to work that day.
- Seek emergency medical help if the person refuses water, vomits, starts to lose consciousness, or if the symptoms do not improve or last longer than one hour. If left untreated, heat exhaustion can turn into heat stroke.

Heat Stroke (also known as sunstroke)

Causes & Symptoms:

- the most serious heat-related illness;
- a life-threatening condition that makes a person lose the ability to sweat so the body cannot cool itself;
- the body's temperature can rise high enough that a person can suffer brain damage or die if not cooled quickly;
- body temperatures may reach 103° F or higher;
- hot, red skin that is often dry or damp;
- failure to sweat;
- confusion;
- a fast, strong pulse;
- vomiting;
- dizziness;
- collapse;
- changes in consciousness;
- seizures; and
- headache.

Response:

- Do not delay in getting medical help. Call 911 immediately.
- While transporting the person to a hospital or waiting for emergency medical personnel, move the person to a cooler area.
- Loosen or remove the person's outer clothing;
- Fan the person;
- Place a cool pack on the person's ankles, armpits, groin, neck, and wrists;
- Apply a cool, wet cloth or sponge.
- Lay a conscious person on his or her back.
- Place an unconscious person on his or her left side and monitor breathing.
- Give cardiopulmonary resuscitation (CPR) if the person is unconscious and has stopped breathing.
- If the victim has a seizure, remove nearby objects to prevent injury.



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