

HEAT RELATED ILLNESSES



Farmers and agricultural workers perform work in a wide range of environmental conditions. The severity of symptoms will vary, but knowing the warning signs of heat related illness can save lives. According to a 2008 Centers for Disease Control (CDC) study, during 1992-2006, a total of 68 crop workers died from heat stroke. This represents a rate nearly 20 times greater than all U.S. civilian workers.

Special populations within the agricultural community may have elevated risk for complications from the heat. Older workers may have more difficulty regulating body temperature. Young children sweat less and quickly produce more heat than adults. Farmworkers may be working far from water or shade, may be compensated in a way that discourages taking a break, and may be fearful of reporting any symptoms of heat related illness to supervisors.

PREVENTION

To prevent heat related illness and fatalities:

- Drink water every 15 minutes, even if you are not thirsty.
- Rest in the shade to cool down.
- Wear a hat and light-colored clothing.
- Learn the signs of heat illness and what to do in an emergency.
- Keep an eye on fellow workers.
- “Easy does it” on your first days of work in the heat. You need to get used to it.

(Source: OSHA’s Water. Rest. Shade. campaign)

Heat Index	Risk Level	Protective Measures
Less than 91° F	Lower (Caution)	Basic heat safety and planning
91°F to 103°F	Moderate	Implement precautions and heighten awareness
103°F to 115°F	High	Additional precautions to protect workers
Greater than 115°F	Very High to Extreme	Triggers even more aggressive protective measures

Resource: <https://www.osha.gov/SLTC/heatillness/edresources.html>



Worker resting in the shade wearing sun safe clothing.

FACTORS ASSOCIATED WITH HEAT RELATED ILLNESS

- Outdoor temperature
- Length of sun exposure
- Dehydration
- Workloads and speed of work
- Age
- Preexisting health conditions
- Acclimatization (how new the person is to the heat and the job)

RECOGNITION AND MANAGEMENT OF HEAT RELATED ILLNESSES

Heat Related Illness	Description	Sign and Symptoms	Immediate Care
Heat Stroke	<ul style="list-style-type: none"> • Life threatening • Medical emergency • Central nervous system failure where body loses ability to regulate temperature • Ability to sweat is lost • Heat regulating system is overwhelmed • Body temperature rises rapidly 	<ul style="list-style-type: none"> • Skin is hot and dry • Body temperature is high (104 degrees or higher) • Rapid heart rate • Sweating is absent in many cases • Chills • Confusion or dizziness • Possible slurred speech • Possible seizures • May experience loss of consciousness 	<ul style="list-style-type: none"> • Call 911 or designated emergency number immediately • Move to cool, shady area • Remove restrictive clothing • Cool body with compresses, wet sheets or towels • If water is not available, fan the victim • Do not leave the person alone
Heat Exhaustion	<ul style="list-style-type: none"> • Excessive loss of body salts • Amount of water lost in perspiration exceeds water intake • Usually has more gradual onset 	<ul style="list-style-type: none"> • Skin becomes pale and cool or flushed • Headaches • Sweating, clammy skin • Abdominal cramping, nausea, vomiting • Weakness • Lethargy, dizziness, and confusion • Elevated body temperature 	<ul style="list-style-type: none"> • Move to a cool, shaded area • Sit or lie down with legs elevated • Loosen clothing/remove excessive clothing • Apply cool compresses • Call for medical attention • Sip cool water or electrolyte beverage (avoid sodium if the worker has a history of heart or high blood pressure issues) • Do not return to work for several hours after symptoms subside • Do not leave victim alone
Heat Syncope (Fainting)	<ul style="list-style-type: none"> • Result of blood pooling in the skin or lower parts of body causing a decreased flow of blood to the brain • May happen when standing in one place for a long period or with sudden movement from sitting or lying down 	<ul style="list-style-type: none"> • Dizziness • Light headed sensation • Fainting 	<ul style="list-style-type: none"> • Move to a cool, shaded area • Lie down • Drink cool fluids (avoid beverages with caffeine or alcohol)
Heat Cramps	<ul style="list-style-type: none"> • Caused by a temporary sodium or fluid imbalance while performing intense work or exercise in a high heat environment 	<ul style="list-style-type: none"> • Spasms and pain in muscles in arms, legs, or abdomen 	<ul style="list-style-type: none"> • Stop activity • Rest in a cool, shaded area • Apply firm pressure or massage to affected muscle area • Drink sips of water or salt water • Do not use beverages with sodium for persons with a history of heart disease or hypertension
Heat Rash	<ul style="list-style-type: none"> • Red, blotchy rash with clusters of small pimples or blisters • May cover a large area of body and impede body's ability to regulate temperature by sweating 	<ul style="list-style-type: none"> • Red, blotchy skin in areas that have extended contact with damp or tight clothing • Small pimples or blisters may be involved in the rash area 	<ul style="list-style-type: none"> • Remove constrictive or damp clothing • Keep affected area dry • Treat with a corn powder or calming lotion • If it persists for more than a few days, see a health care provider

For more information or to access a related webinar training go to www.agrisafe.org

This material was produced under a grant (SH24891SH3) from the Occupational Safety & Health Administration, U.S. Department of Labor. It does not necessarily reflect the views or policies of the U.S. Department of Labor, nor does the mention of trade names, commercial products, or organization imply endorsement by the U.S. Government.

