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. Deaths attributed to natural heat exposure represent a continuing public health concern. Preparedness and response initiatives that limit exposure during periods of extreme heat can reduce mortality. During 2018–2020, a total of 3,066 heat-related deaths occurred. The highest percentage of heat-related deaths occurred among persons aged 55–64 years (19%).

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. Y ou need to get used to it.

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

Heat Index	Risk Level	Protective Measures
Less than 91º F	Lower (Caution)	Basic heat safety and planning
91ºF to 103ºF	Moderate	Implement precautions and heighten awareness
103ºF to 115ºF	High	Additional precautions to protect workers
Greater than 115ºF	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	• 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	• 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	• THIS IS A MEDICAL EMERGENCY: Call 911 • Stay with the worker until help arrives • Place cold wet towels or ice on the worker's head, neck, armpits, and groin • Cool quickly with a cold-water or ice bath if possible; wet the skin, place cold wet towels on skin, or soak clothing in cool water • Fan air around theworker
Heat Exhaustion	• Excessive loss of body salts • Amount of water lost in perspiration exceeds water intake • Usually has more gradual onset	• Skin becomes pale and cool or flushed • Headaches • Sweating, clammy skin • Abdominal cramping, nausea, vomiting • Weakness • Lethargy, dizziness, and confusion • Elevated body temperature • Thirst • Irritability • Decreased urine output	• Take the worker to a clinic or emergency room for medical evaluation and treatment • If medical care is unavailable call 911 • Stay with the worker until help arrives • Remove unnecessary clothing including shoes and socks • Cool the worker with cold compresses or have them wash head, face, and neck with cold water • Do not let the worker return to work that day
Heat Syncope (Fainting)	• 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	• Dizziness • Lightheaded sensation • Fainting	• Move the worker to a cool, shaded area • Have the worker lie down • Have the worker drink cool fluids (avoid beverages with caffeine or alcohol)
Heat Cramps	• Caused by a temporary sodium or fluid imbalance while performing intense work or exercise in a high heat environment	• Spasms and pain in muscles in arms, legs, or abdomen	• Have the worker drink water and have a snack and/or a sports drink every 15 to 20 minutes • Avoid salt tablets • Wait a few hours before allowing the worker to return to strenuous work • Seek medical attention if the worker has heart problems or is on a low-sodium diet, or if the cramps do not subside within 1 hour
Heat Rash	• 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	• 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	• 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 healthcare provider • Try to move work to a cooler, less humid environment when possible

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

Last Reviewed August 2023

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