

Protecting Workers from Heat Stress

CCR, T8 - 3203, 3363, 3380-3390, 3439, 3457

Heat-related illnesses have caused deaths among California workers. Workers in agriculture are especially vulnerable. Farm workers often work in the open heat and may have little opportunity to rest in a cool area. Also, acclimatization (adjustment of the body to heat exposure) is difficult for farm workers due to irregular work schedules, heat waves and not having enough cool water readily available.

ATTENTION:

- Increase fluids (1 to 2 quarts per hour) and rest breaks during high temperatures, especially when above 100°F and during periods of unusually high humidity.
- Stay alert for early symptoms of excessive exposure to heat in workers and train employees to do the same.
- Ensure proper provisions (such as communication system) are available for contacting a doctor or medical assistance to avoid unnecessary delay of treatment and first aid.
- Consumption of alcohol will add to dehydration and increase the risk of health illness.

What are some of the symptoms and risks of heat stress?

- Loss of concentration and difficulty in focusing on a task.
- Increased irritability and rise in heart rate and body temperature.
- Little or no desire to drink, fatigue and headache - results from loss of fluids.
- Fainting and *possible death* if person is not removed from the source of the heat stress.



How can you reduce the risk of heat stress?

- Provide cool water as close as possible and encourage workers to drink often (this helps to replace fluids lost through sweating).
- Train supervisors and first aid workers to recognize heat stress disorders.
- Encourage supervisors to move workers to a cooler place or reduce the workload and to stop and rest if they become extremely uncomfortable.
- Encourage workers to wear appropriate clothing (cotton garments) and to use sunscreen, hats, and sunglasses.
- Be aware that workers who are obese, pregnant, older, and on certain medications are at greater risk for heat stress.

Some of the symptoms of heat stress

<p>HEAT STROKE, the most serious health problem for workers in a hot environment, is caused by the body's failure to regulate its core temperature. Sweating stops and the body can no longer release excess heat. <i>Victims of heat stroke usually die unless treated promptly.</i> Signs include:</p> <ul style="list-style-type: none"> • Mental confusion, delirium, loss of consciousness, convulsions, or coma. • Body temperature of 106°F or higher. • Hot, dry skin that may be red, mottled, or bluish. 	<p><i>How should heat stroke be treated?</i> Immediately call for medical assistance. Prompt first aid and medical treatment can prevent permanent injury to the brain and other vital organs. While awaiting medical help, the victim should be moved to the coolest, shadiest spot available, fanned vigorously and the victim's skin and clothing should be gradually soaked with cool water. *</p>
<p>HEAT EXHAUSTION results from loss of fluid through sweating and from not drinking enough replacement fluids. The worker still sweats but experiences extreme weakness or fatigue, giddiness, nausea, or headache. The skin is clammy and moist, while the body temperatures are normal or slightly elevated.</p>	<p><i>How should heat exhaustion be treated?</i> The victim should rest in a cool place and drink water or an electrolyte solution, such as Gatorade or similar beverages used by athletes to restore potassium and salt. Severe cases, in which the victim vomits or loses consciousness, may require longer treatment under medical supervision.</p>
<p>HEAT CRAMPS, painful spasms of the muscles, are caused by the body's loss of salt.</p>	<p><i>How should heat cramps be treated?</i> As in the case of heat exhaustion, a victim of heat cramps should drink an electrolyte solution such as Gatorade. Seek medical attention in the case of severe cramping, vomiting, or loss of consciousness.</p>
<p>FAINTING can occur when a worker is not acclimatized to a hot environment.</p>	<p><i>How should fainting be treated?</i> At first, allow the victim to lie down on his or her back. When consciousness has been regained, the victim should recover after a brief period of walking around slowly. Immediate return to work in the heat is not advisable as heat stress may recur.</p>
<p>HEAT RASH, also known as prickly heat, can be extensive and can be complicated by infection. Heat rash can be so uncomfortable that sleep is disrupted. It can impede a worker's performance and even result in a temporary total disability.</p>	<p><i>How should heat rash be treated?</i> Place the victim in a cool place and allow the skin to dry.</p> <p>* Note: In all cases victim should be moved to a cool and shaded area.</p>

For additional information see the [Cal/OSHA Farm Labor Contractor Safety and Health Guide \(Section 5\)](#), the [US Dept. of Labor Fact Sheet](#), and the [National Institute for Occupational Safety and Health \(NIOSH\) booklet entitled "Working in Hot Environments"](#).