

RISK CONTROL CONSULTING

Heat Illness – Know the Signs and Symptoms

Objective: To reinforce awareness of heat related illnesses including causes, symptoms, and the steps to prevent it.

When the body is unable to cool off by sweating, heat-induced illnesses, such as heat rash, cramps, heat exhaustion, and heat stroke can occur. These illnesses can be serious, sometimes even resulting in death.

To control this hazard, take precautions by being able to recognize the symptoms of heat exhaustion and heat stroke and establish procedures to mitigate and reduce progression. Review the guidance below with employees to ensure a successful heat illness prevention plan within your organization.

Factors Leading to Heat Illness

Several factors can contribute to heat illness. Below are the most common ones:

- ☐ High temperature (>80°F) and HIGH humidity (referred to the [heat index](#))
- ☐ Direct sun and/or heat
- ☐ Limited air movement
- ☐ Physical exertion
- ☐ Poor physical condition
- ☐ Medications
- ☐ Lack of tolerance for hot environments

Symptoms

Knowing the signs and symptoms of heat-related illness can aid in self-monitoring and your co-workers. If you detect signs of heat exhaustion, notify a supervisor or appropriate person with first aid training and take immediate steps to cool the individual down.

HEAT EXHAUSTION	HEAT STROKE
Symptoms	Symptoms
- Headache - Dizziness	- Red, dry, hot skin with no sweating - High temperature (104°F or higher)

- Extreme weakness - Profuse sweating - Weak, rapid pulse - Nausea or vomiting - Muscle Cramps - Pale Skin	- Confusion or irrational behavior - Seizures or convulsions - Vomiting - Loss of consciousness
What to Do	What to Do
☐ Move person to cool, shaded area with circulating air ☐ Elevate the feet ☐ Loosen their clothing ☐ Apply cool wet cloth on the skin or spray mist or use ice packs ☐ Provide small sips of cool water ☐ If symptoms do not improve within 15 minutes contact emergency services	☐ Contact Emergency Medical Services (911) ☐ Cool the victim by removing them from the hot environment ☐ Increase air circulation (fan) ☐ Loosen clothing ☐ Pour water or sponge ice water-soaked towels over the entire body to cool immediately

Heat Cramps are the mildest form of heat illness which includes painful spasms of the leg, arm or abdominal muscles coupled with heavy sweating and thirst. The affected employee should stop work activity, sit in a cool shaded area and sip cool water. Prompt treatment usually prevents heat cramps from progressing to heat exhaustion.

Precautions - Employers

There are required precautions California employers must take to ensure safe worksites including:

1. [Monitor weather conditions](#) to evaluate the risk level for heat illness.
2. Once the temperature exceeds 80° Fahrenheit you must:
 - a. provide [shade](#) structures
 - b. hold pre-shift meetings to remind employees to keep hydrated
 - c. take [cool-down rests](#) as necessary,
 - d. review signs and symptoms of heat illness
3. Provide [clean, fresh, cool drinking water](#) sufficient for one quart per employee per hour and placed in proximity to the employees.
4. Train your employees on your Heat Illness Prevention program and [emergency response procedures](#)
5. Ensure new employees are properly [acclimatized](#) (temporary adaptation of the body to work in the heat over a period of 4 to 14 days)

Precautions - Employees

Employees can do their part in reducing their exposure to heat illness by following these guidelines:

Hydrate with water or water infused with electrolytes every 15 minutes
• Electrolytes help regulate and control the balance of fluids in the body and play a role in regulating blood pressure and muscle contraction (three big electrolytes: sodium, potassium, magnesium) • Avoid beverages with added sugar (soda, fruit juices)
Wear a wide-brim hat and light colored, lightweight, loose fitting clothing
Wear shirts with long sleeves that cover the body and avoid sunburn
Apply sunscreen with an SPF of at least 15, reapply every two hours or more
Rest in the shade
Know where you are working, in case you need to call 911
Watch out for each other, stay aware
Other factors can affect your body's ability to regulate temperature including: • Alcohol use • Certain medications (beta blockers, diuretics, antihistamines, tranquilizers, antipsychotics) can affect your body's ability to stay hydrated and respond appropriately to heat • Carrying excess weight • Adults older than 65

Resources

[Heat Illness Prevention Webinar](#) (Presented by Cal-OSHA) (44 minutes)

Heat Illness Prevention (Cal-OSHA Website) -

<https://www.dir.ca.gov/dosh/heatillnessinfo.html>

This Alliant Risk Control Consulting fact sheet is not intended to be exhaustive. The discussion and best practices suggested herein should not be regarded as legal advice. Readers should pursue legal counsel or contact their insurance providers to gain more exhaustive advice.

Heat Illness – Be Prepared

Trainer: _____ Trainer's Signature: _____

Date: _____ Organization: _____ Department: _____

Class Participants:

Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____
Name: _____	Signature: _____