



Outdoor Heat Illness Prevention: Essential Requirements

Overview

In response to the heat-related deaths of outdoor employees, particularly in the agricultural industry, California was the first state in the nation to adopt an outdoor heat illness prevention standard in 2006. Cal/OSHA's outdoor heat standard (California Code of Regulations title 8, section 3395), applies to all outdoor places of employment. Covered employers are required to maintain a written Heat Illness Prevention Plan (HIPP), train employees on heat illness, and satisfy requirements to lower the risk of heat illness incidents in the workplace.

Indoor v. Outdoor Places of Employment

It is important to determine whether the work area is considered indoors or outdoors, as different standards apply.

Indoor places: are spaces that are under a ceiling or overhead covering that restricts airflow and is enclosed along the entire perimeter by walls, doors, windows, dividers, or other physical barriers that restrict airflow, whether open or closed. Generally, any workplace with a roof and enclosed sides is considered an indoor workplace.

Outdoor places: Work areas that are not indoors are considered outdoors. Outdoor places can include partial structures such as lean-tos and structures with one or more open sides.

Employers may refer to Cal/OSHA's [Comparison Chart between indoor and outdoor standards here](#). This fact sheet focuses on the outdoor heat standard only.

What Must Employers Do to Comply?

Covered employers must satisfy a number of key requirements, including:

- Maintain a **written Heat Illness Prevention Plan (HIPP)**;
- **Train** employees and supervisors on heat illness;
- Provide sufficient drinking **water**;
- Encourage employees to take **cool-down breaks**;
- Develop effective **emergency response procedures**;
- Ensure **acclimatization**;
- **Monitor** the weather;
- Provide access to **shade** upon request or when temperatures are greater than 80 degrees
- Establish **high heat procedures** (certain industries) when the temperature reaches 95 degrees

Requirements for All Employers with Outdoor Workplaces

Written Plan

Employers must establish, implement, and maintain an effective written Outdoor Heat Illness Prevention Plan (HIPP) that includes procedures for providing drinking water, access to shade, preventative cool down periods, close observation during acclimatization, and high heat procedures for certain industries. This plan must be individually tailored and customized to the business and be in English and the language understood by the majority of employees.

Cal/OSHA offers a [Model Plan here](#), which includes both indoor and outdoor requirements; however, employers may delete sections that are not applicable (e.g., delete indoor sections if you have no indoor workers). The plan should be available to workers at the work site and to Cal/OSHA representatives upon request. The need to be accessible “at the worksite” can be satisfied by having it be accessible via cell phone or other electronic device that all workers can regularly access.

Staff Training

An employer must provide training to both workers and supervisors on several topics, including:

- Environmental and personal risk factors for heat illness;
- Signs and symptoms of heat illness
- How to prevent heat illness
- Company policies and procedures

To maximize the effectiveness of the training, it should be given close to the hot season as opposed to off season when heat illness is not as much of a concern. Many employers also integrate reminders or small trainings into their daily “tailgate meetings” or safety meetings to remind employees. Both supervisors and employees should be trained on the employer’s emergency response procedures. The training should be understood by all employees, which could mean that it must be provided in languages other than English. Employers should also keep documentation of these trainings for future reference.

For support with staff safety trainings, refer to [CEA’s safety partners here](#).

Water

Employers are required to provide access to potable (fit to drink) water that is fresh, suitably cool, and free of charge to the employee. It must be located as close as practicable to the work area. The employer must provide enough water for every worker to be able to drink one quart of water, or four eight-ounce cups, per hour.

If water is provided in individual containers, the containers must be clean and a source of water must be readily available. Any hose or connection used to provide the water must be clearly labeled as approved for potable drinking water systems. In instances where work is being done in multiple locations or different floors for construction, water sources should be placed in each area or floor.

Cool Down Breaks

Employers are required to allow and encourage workers to take monitored cool-down and recovery periods of not less than five minutes when they feel the need to do so in order to prevent overheating. If a worker is experiencing any symptoms they should never be left alone and appropriate first aid and emergency response

procedures should be initiated immediately. If heat illness is suspected, emergency personnel should be contacted immediately.

Emergency Response Procedures

Employers must provide first aid or emergency response to any workers showing heat illness signs or symptoms, including allowing the employee to contact emergency medical services. In addition, the employer must ensure effective communication by voice, observation, or electronic means is maintained so that workers at a worksite can contact a supervisor or emergency medical services whenever necessary.

Employers must have specific procedures to ensure that supervisors and workers are trained to recognize the signs and symptoms of heat illness, provide basic first aid (such as cooling towels and shade), and obtain emergency medical services. Workers with signs or symptoms of heat illness should never be left alone or sent home without being offered onsite first aid or medical services. A policy describing the supervisor's responsibility and specific procedures is recommended.

Acclimatization

"Acclimatization" means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Supervisors must observe all employees for acclimatization during a **heat wave** or for 14 days when an employee has been newly hired or assigned to a high heat area.

"Heat wave" means any day in which the predicted high outdoor temperature for the day will be at least 80 degrees Fahrenheit, and is at least 10 degrees greater than the average high daily outdoor temperature for the preceding five days.

Temperature Monitoring

Supervisors must monitor the weather by checking weather reports and know how to respond to weather advisories. Supervisors should understand requirements when temperatures exceed 80 degrees, and in certain industries, 95 degrees, as discussed below.

80 degrees: Additional Requirements

Shade

Employers must provide access to shade either by natural or artificial means when temperatures exceed 80 degrees or when shade is requested by an employee. Some options include buildings, canopies, lean-tos or other partial or temporary structures that are either ventilated or open to air movement. Sheds or other outbuildings must be mechanically ventilated or open to air movement. Trees can also be an acceptable source of shade for employees. The shade should block direct sunlight to the point that objects do not cast a shadow when they are in the shaded area.

There should be enough shade area provided for all workers taking a rest break, recovery break, or meal period at any one time to sit comfortably and fully within the shade, without being in physical contact with each other.

95 degrees: Additional Requirements

In addition to the heat illness prevention standard, there are additional requirements for some industries when the temperature reaches or exceeds 95 degrees Fahrenheit. The industries subject to these requirements are:

- Agriculture
- Construction
- Landscaping
- Oil and gas extraction
- Transportation and delivery of agricultural products and of construction or other heavy materials

These additional high heat requirements include:

More Monitoring

Employees must be monitored for alertness and signs or symptoms of heat illness. The employer shall accomplish this by:

- Having a supervisor or designee observe up to 20 employees or;
- Implementing a “buddy system” or;
- Maintaining regular communication with the sole employee onsite by radio or cellular phone or;
- Other effective means of observation

Designate Employees Authorized to Contact Emergency Medical Services

Employers must designate employees to call for emergency medical services and allow other employees to call for emergency services when the designated employee(s) is not available.

Remind Employees to Drink Plenty of Water

During high-heat periods, employers should encourage their employees to drink water throughout the day. In many cases, employees should drink water regularly before they feel extremely thirsty to prevent heat illness.

Review High-Heat Procedures with Employees

Employers should have pre-shift meetings with employees to review the high heat procedures, encourage them to drink plenty of water, and remind them of their right to take a cool down or take a recovery break as needed.

For employees in **agriculture**, employers should ensure that the employee takes a 10-minute net preventative cool-down and recovery period **every two hours**. This recovery break may be taken concurrently with any other meal or rest period required. Merely offering the opportunity for a break is not enough; workers must take these breaks.

If workers work longer than 8 hours, the employer must provide an additional 10-minute cool-down rest period every 2 hours. For example, if the shift extends beyond 8 hours, an additional rest period is required at the end of the eighth hour of work. If the shift extends beyond 10 hours, another is required at the end of the tenth hour.

Employers can learn more on [Cal/OSHA's FAQ page](#).

Final Thoughts

Cal/OSHA's information campaign for Outdoor Heat Illness Prevention focuses on three elements: Water, Shade and Rest. A well-crafted written Heat Illness Plan and training will ensure you address these requirements and more. Additionally, it will potentially lower costs associated with employee illnesses, injuries, and regulatory fines.

CEA members have unlimited calls with our HR advisors, and may call us with questions Monday-Friday, from 8am-5pm, at **800.399.5331** or email us at **CEAinfo@employers.org**!