



# Heat Illness Prevention Program

Rev. April 2024

# TABLE OF CONTENTS

<b>I. PURPOSE .....</b>	<b>3</b>
<b>II. AUTHORITY.....</b>	<b>3</b>
<b>III. SCOPE .....</b>	<b>3</b>
<b>IV. DEFINITIONS.....</b>	<b>3</b>
<b>V. RESPONSIBILITIES .....</b>	<b>4</b>
RISK MANAGEMENT .....	4
DIRECTORS, MANAGERS, AND SUPERVISORS .....	4
AFFECTED EMPLOYEES.....	4
<b>VI. PROGRAM.....</b>	<b>5</b>
ACCESS TO WATER .....	5
ACCLIMATIZATION .....	5
ACCESS TO SHADE.....	6
CLOTHING AND PPE .....	6
CITY VEHICLES.....	7
EMERGENCY RESPONSE.....	7
INDOOR WORKPLACES.....	7
HANDLING A SICK EMPLOYEE.....	8
HIGH HEAT PROCEDURES.....	9
TRAINING.....	9
CONTRACTORS .....	10
<b>VII. RECORDKEEPING.....</b>	<b>10</b>
<b>VIII. ADDITIONAL REFERENCES .....</b>	<b>10</b>

## I. PURPOSE

California employers with any indoor or outdoor places of employment must comply with the Heat Illness Prevention Standard-in the California Code of Regulations, Title 8, Section 3395 and 3396. Employees working in indoor or outdoor places of employment or in other areas at times when the environmental risk factors for heat illness are present, are at risk for developing heat illnesses if they do not protect themselves appropriately. The objective of this program is to reduce the potential for heat illnesses by making employees aware of heat illnesses, ways to prevent illness, and actions to take if symptoms occur. It is the policy of the City of Redlands that any employee who works indoors or outdoors in the heat, and all individuals who supervise these employees, must comply with the procedures in this program and the California Code of Regulations, Title 8, Section 3395 and 3396.

## II. AUTHORITY

California Code of Regulations, Title 8, Section 3395 and 3396.

## III. SCOPE

This program applies to all employees who work in environments where the temperature exceeds 82° F indoors or 80° F outdoors, with particular attention to employees working in conditions where environmental risk factors such as high heat, radiant heat, and humidity are present. It covers both outdoor and indoor heat illness prevention measures.

## IV. DEFINITIONS

- A. **Acclimatization-** the temporary and gradual physiological change in the body that occurs when the environmentally induced heat load to which the body is accustomed is significantly and suddenly exceeded by sudden environmental changes. In more common terms, the body needs time to adapt when temperatures rise suddenly, and an employee risks heat illness by not taking it easy when a heat wave strikes or when starting a new job that exposes the employee to heat to which the employee's body hasn't adjusted. Inadequate acclimatization can be significantly more perilous in conditions of high heat and physical stress. Employers are responsible for the working conditions of their employees, and they must act effectively when conditions result in sudden exposure to heat their employees are not used to.
- B. **Environmental risk factors for heat illness-** working conditions that create the possibility that heat illness could occur, including air temperature, relative humidity, radiant heat from the sun and other sources, conductive heat sources such as the ground, air movement, workload severity and duration, protective clothing, and personal protective equipment worn by employees.
- C. **Heat illness-** a serious medical condition resulting from the body's inability to cope with a particular heat load, and includes heat cramps, heat exhaustion, heat syncope, and heat stroke.
- D. **High Heat Procedures-** additional preventative measures that the City shall use when the temperature equals or exceeds 95° Fahrenheit.

- E. **Personal risk factors for heat illness-** factors such as an individual's age, degree of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, and use of prescription medications that affect the body's water retention or other physiological responses to heat.
- F. **Preventative recovery period-** a period to recover from the heat to prevent heat illness.
- G. **Shade-** blockage of direct sunlight. Canopies, umbrellas and other temporary structures or devices may be used to provide shade. One indicator that blockage is sufficient is when objects do not cast a shadow in blocked sunlight. Shade is not adequate when heat around shade defeats the purpose of shade, which is to allow the body to cool. For example, a car sitting in the sun does not provide acceptable shade to a person inside it, unless the car is running with air conditioning.

## V. RESPONSIBILITIES

### RISK MANAGEMENT

Risk Management shall:

- Prepare and maintain a written program that complies with the requirements of the California Code of Regulations, Title 8, Sections 3395 and 3396;
- Review and revise the Heat Illness Prevention Program:
  - On an annual basis;
  - When changes occur to the California Code of Regulations, Title 8, Section 3395 and 3396, that prompt revision of this document; and
  - When there is an accident or near miss that relates to this section.
- Provide training to all potentially impacted employees and their supervisors on the risks associated with, and methods of prevention of, heat illness, including how to recognize symptoms and respond when they appear. Training shall be provided on an annual basis as a refresher prior to the start of the summer season for all employees.
- Maintain training records.

### DIRECTORS, MANAGERS, AND SUPERVISORS

Directors, Managers, and Supervisors shall:

- Identify all employees who are required to work outdoors where potential heat illness could occur and identify the supervisor of those employees;
- Ensure that adequate water and shade are available at a job site when the environmental risk factors for heat illness are present;
- Ensure that all affected employees have received proper training on heat illness prevention;
- Ensure that the requirements in this program are followed;
- Contact 911 to request emergency medical services in the event medical assistance is required;
- Should an incident occur, complete Incident Report forms and any additional documentation needed to investigate work related injuries and illnesses; and

- When the temperature equals or exceeds 95° Fahrenheit or during a heat wave, a supervisor must conduct a pre-shift meeting before the commencement of work to encourage employees to drink plenty of water and remind them of their rights to take a cool-down rest period when necessary.

## EMPLOYEES

Employees shall:

- Comply with the provisions of the Heat Illness Prevention Program, as described in this document and in the training sessions attended;
- Ensure that drinking water is always available when the environmental risk factors for heat illness are present. Immediately notify supervisor if it is not available.
- Ensure there is access to a shaded area to prevent, or recover from, heat related symptoms;
- Report heat related illness symptoms to the immediate supervisor; and
- Be present and aware, looking out for the signs and symptoms of heat stress for self and co-workers.

## VI. PROGRAM

### ACCESS TO WATER

Employees must have access to potable drinking water and are encouraged to frequently consume small amounts of water throughout the day, up to four cups per hour, depending upon heat conditions. If plumbed potable water is not readily accessible, the department shall provide portable water containers or bottled water.

Paper cone rims or bags of disposable cups and the necessary cup dispensers shall be made available to workers and shall be kept clean until used. Water shall be fresh, pure, and suitably cool and provided to employees free of charge. During hot weather, the water must be cooler than the ambient temperature but not so cool as to cause discomfort. All water containers shall be kept in sanitary conditions. Water from non-approved or non-tested water sources is not acceptable. Individual water containers or bottled water provided to workers shall be adequately identified to eliminate the possibility of drinking from a coworker's container or bottle.

As part of the Effective Replenishment Procedures, the water level of all containers shall be checked periodically (e.g. every hour), and more frequently when the temperature rises. Water containers shall be refilled with cool water, when the water level within a container drops below 50 percent. Employees should contact their supervisor when levels reach 50 percent to refill water.

Hydration stations shall be available in high-traffic areas, ensuring employees have easy access to cool water. Supervisors and Managers shall encourage employees to drink water at least every 15-20 minutes, even if employees are not thirsty.

## ACCLIMATIZATION

The weather shall be monitored daily. The supervisor shall be on high alert for sudden heat wave(s) or increases in temperatures to which employees have not been exposed to for several weeks or longer.

During a heat wave or heat spike, flexible scheduling shall allow for:

- a.* Early Start Times: Begin work earlier in the day to take advantage of the cooler morning temperatures
- b.* Shortened Shifts: Reduce the length of shifts during extreme heat days
- c.* Work/Rest Cycles: Employees to alternate between periods of work and rest, ensuring they take regular breaks in cool-down areas
- d.* Remote Work Options: Remote work may be a feasible option for indoor work, particularly during extreme heat events

New employees, or those employees who have been newly assigned to a high heat area shall be closely observed by the supervisor or designee for the first 14 days. The city shall implement the following phased approach for acclimatization, particularly for new employees or those returning from a prolonged absence:

- e.* Week 1: Limit exposure to heat by assigning tasks with lower physical demands. Schedule work in cooler areas or during cooler parts of the day
- f.* Week 2: Gradually increase exposure, allowing employees to work longer hours in warmer environments while continuing to monitor their responses
- g.* Monitoring: Supervisors should closely observe acclimatizing employees for signs of heat-related illnesses and adjust work intensity as necessary

## ACCESS TO SHADE

Shade structures shall be opened and placed as close as practical to the workers, when the outdoor temperature equals or exceeds 80° Fahrenheit. When the temperature is below 80° Fahrenheit, access to shade shall be provided promptly, when requested by an employee.

Employees suffering from heat - related illnesses or in need of a recovery period from the heat must be provided with access to an area with shade that is either open to the air or provided with ventilation or cooling for a period of no less than five minutes.

The interior of a vehicle may be used to provide shade only if it is equipped with air conditioning and the air conditioner is on.

## CLOTHING AND PERSONAL PROTECTIVE EQUIPMENT

Heat reflective clothing: Lightweight, breathable, and light -colored clothing or PPE designed to minimize heat retention shall be provided.

Personal Cooling Gear: Personal cooling vests or water-cooled garments for those who work in extremely high temperatures or engage in heavy physical activity shall be provided.

## CITY VEHICLES

Employees that are provided City vehicles with functioning temperature control systems are advised to adjust those systems to create a cool climate that shall allow remediation of core temperature increases when environmental risk factors for heat illness are present. If there are problems with these systems, employees shall notify their immediate supervisor to get the issue resolved in a timely matter.

Potable water should be stocked in vehicle before it is taken out to conduct job related activities when environmental risk factors for heat illness are present.

Employees shall notify their immediate supervisor if they feel symptoms of heat illness and refrain from operating the vehicle until being cleared by their supervisor or heat illness symptoms have receded.

## EMERGENCY RESPONSE

Prior to assigning a crew to a particular worksite, efforts shall be made to ensure that a qualified and appropriately trained and equipped person is available at the site to render first aid if necessary. First aid kits shall be equipped with cooling packs. These should be placed near workstations and cool-down areas.

Supervisors and Managers shall ensure that communication devices are available for contacting emergency services quickly.

When an employee is showing symptoms of possible heat illness, steps shall be taken immediately to keep the stricken employee cool and comfortable once emergency service responders have been called (to reduce the progression to more serious illness). Under no circumstances shall the affected employee be left unattended.

## INDOOR WORKPLACES

Should internal office temperatures exceed 85° Fahrenheit, without an indication that air temperature management systems shall be restored before the end of the working day, a Department Director may choose to release any employees for the rest of the day, upon the employees' request, that may have potential health issues or health conditions that may be exasperated by the heat. This time shall not be compensated; however, employees may request to use accruals to be paid for the remainder of their shift.

Temperature monitoring shall occur to ensure that standards are met when indoor temperatures exceed 82°F. Thermometers or temperature sensors shall be mounted in indoor work areas to continuously monitor the temperature and humidity and shall be visible to all employees.

When temperatures are at or exceed 82 °F, Supervisors and Managers shall monitor and record the indoor temperatures regularly, particularly during peak heat hours. Supervisors and Managers shall also monitor the indoor heat index to gauge overall heat stress levels to provide a more accurate assessment of risk.

If possible, the following engineering controls shall be implemented:

- **Ventilation Systems:** To improve air circulation using ventilation systems, air conditioning, or exhaust fans. These systems shall be regularly maintained to ensure they are working effectively.
- **Cooling Fans:** Cooling fans or misting fans in areas where air conditioning is unavailable, ensuring that fans are strategically placed to optimize airflow.
- **Heat Barriers:** Radiant heat shields or barriers between heat-generating equipment and employees to reduce heat exposure in those areas.
- **Evaporative Coolers:** In areas with dry heat, evaporative coolers (swamp coolers) to lower the temperature and moisture to the air.

For temperatures between 82° and 87°, Supervisors and Managers shall allow for 10-minute cool-down breaks every hour. For temperatures above 87°, cool-down breaks shall be increased to 15 minutes or more each hour.

The city may implement adjusting work schedules to avoid the hottest parts of the day, particularly in areas without air conditioning. Employees can work during the early morning or later in the day when temperatures are lower. Rotation of employee tasks may also be implemented between cooler indoor areas and hotter tasks to minimize prolonged exposures to high temperatures.

Cool-down areas with air conditioning or ventilation shall be available where employees can take breaks close to their workstations. Indoor cool-down areas temperatures shall be kept regulated at or below 82°F as required by Cal/OSHA standards. If the temperature cannot be maintained, additional cooling methods shall be used. Supervisors and Managers shall encourage employees to take cool-down breaks whenever they feel symptoms of heat illness or discomfort.

## HANDLING A SICK EMPLOYEE

Recognize the symptoms and be vigilant for signs of heat illness. Symptoms can range from mild to severe and may include:

- **Heat cramps:** Muscle spasms, often in legs, arms, or abdomen
- **Heat Exhaustion:** Heavy sweating, weakness, dizziness, headache, nausea, vomiting, and fainting
- **Heat Stroke (medical emergency):** Confusion, loss of consciousness, rapid heartbeat, hot/dry skin, or excessive sweating, and even seizures

Relocate the employee to a cool area immediately. If necessary, have another employee assist in relocation to prevent additional strain. Remove or loosen any heavy or tight clothing to allow heat to escape from the body. Provide cool water to the employee in small sips – do not force the employee to drink water if they are nauseous or unable to swallow. Place cool, wet cloths, or ice packs on the employee’s neck, armpits, and groin to help reduce body temperature. Monitor the employee closely for changes in condition, particularly signs of worsening symptoms such as vomiting, confusion, or loss of consciousness. Do not allow the employee to resume work, even if they begin to feel better. They should rest in the cool-down area and be evaluated.

If an employee shows signs of heat stroke, call 911 immediately. While waiting for emergency responders, continue to cool the employee with ice packs, fans, or cool water, place the employee in the recovery position (lying on their side), and stay with the employee until medical help arrives. Under no circumstances should the employee be left alone, even if their symptoms appear to improve. Heat illness can worsen rapidly and requires continuous monitoring.

Supervisors and Managers shall promptly notify HR/Risk and document the incident.

## HIGH HEAT PROCEDURES

Supervisors and Managers shall pair employees to monitor each other for signs of heat illness, particularly during high heat conditions. This ensures that no one is left unobserved, especially in isolated areas.

Supervisors and Managers shall conduct frequent check-ins with employees throughout the day, either through direct observation or communication via radios/phones, increasing the frequency if temperatures rise above 95°F.

Daily pre-shift meetings shall be conducted each day when temperatures are expected to exceed the threshold and an emphasis shall be placed on the importance of hydration, recognizing heat illness symptoms, and using cool-down breaks/areas.

Employees shall be reminded constantly throughout the work shift to drink plenty of water and take preventative cool-down rest breaks when needed. Mandatory cool-down breaks shall be required every 30-60 minutes in shaded or air-conditioned areas. Breaks should last at least 10 minutes and allow the employee to lower their core body temperature.

## TRAINING

Training must be provided for employees working on job tasks where environmental risk factors for heat illness are present. Training must also be provided for their respective supervisors. Refresher training must be provided on an annual basis.

All employees, including supervisors, working on job tasks where environmental risk factors for heat illness are present shall receive instruction before being assigned to work tasks. Training topics shall include the following:

Environmental and personal risk factors for heat illness;

- Procedures for identifying, evaluating, and controlling exposures to the environmental and personal risk factors for heat illness;
- Employees who experience excessive sweating require frequent consumption of small quantities of water, up to four cups per hour when working in extreme conditions of heat;
- Importance of acclimatization;
- Different types, signs, and symptoms of heat illness;
- Importance of immediately reporting symptoms or signs of heat illness in themselves or in coworkers to their supervisor;

- Procedures for responding to symptoms of possible heat illness, including how emergency medical services shall be contacted and provided, should they become necessary; and
- Procedures for contacting emergency medical services.

## CONTRACTORS

Contractors who perform work on City property must adhere to the City's Heat Illness Prevention Program. It is the responsibility of the Project Manager to ensure these procedures are conducted. Contractors must also make a copy of their Heat Illness Prevention Program available to Risk Management for review. Contractors are expected to always enforce their Program while performing work for the City.

If there is a conflict in procedures between Contractor and City programs, notification shall be sent to Risk Management for support. Contractors with an insufficient program shall not be allowed to begin work until their program meets or exceeds the requirements of this program.

## VII. RECORDKEEPING

Detailed documentation of all procedures related to heat illness prevention, including training records, acclimatization plans, and emergency response protocols shall be maintained by Risk Management.

## VIII. ADDITIONAL REFERENCES

<https://www.dir.ca.gov/title8/3395.html>