



Heat-Related Illness Prevention Plan

Title 8 California Code of Regulations Section 3395

Board Approved:

Sierra Foothill Charter School
HEAT RELATED ILLNESS PREVENTION PLAN

1. POLICY

The purpose of this program is to ensure that all SFCS employees, working in outdoor places of employment or in other areas when environmental risk factors for heat illness are present, are protected from heat illness and are knowledgeable of heat illness symptoms, methods to prevent illness, and procedures to follow if symptoms occur.

2. SCOPE

The Heat Illness Prevention Program applies to all SFCS employees that may be at risk of heat illness and applies to all indoor and outdoor places of employment where environmental risk factors for heat illness are present. Affected employees may include those working grounds, custodial and maintenance.

3. DEFINITIONS

Acclimatization - The temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.

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.

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.

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.

Preventative recovery period - A period of time, at least five minutes, used to recover from the heat in order to prevent further heat illness.

Shade – Blockage of direct sunlight. Needed when outside temperatures are above 85 degrees Fahrenheit. 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 the area of blocked sunlight. Shade is not adequate when heat in the area of 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.

4. RESPONSIBILITY

Risk Management – It is the responsibility of the Principal (supervisor) to provide information and direction to employees to prevent heat illness. This may include daily heat alerts and instructions when temperatures are believed to be in excess of 80 degrees Fahrenheit.

Supervisors – It is the responsibility of supervisors to ensure that all elements of this policy are implemented.

- (a) Affected supervisors shall attend heat training and implement heat prevention methods as required.

- (b) Supervisors are responsible for encouraging affected employees to drink water frequently and for reminding the employees of the steps to prevent heat illness.

- (c) In the event of an employee's heat illness, the supervisor must report the incident and get medical assistance for the employee, and complete all necessary forms related to Workers Compensation.

Affected Employees – It is the responsibility of all affected employees to follow the established procedures to ensure their safety and prevent heat illness. Employees shall report any incident of heat illness immediately to their supervisors. Employees shall attend training as required.

5. TRAINING

Employee Training: Training in the following topics shall be provided to all employees:

- (a) The environmental and personal risk factors for heat illness;

- (b) The employer's procedures for complying with the requirements of this standard;

- (c) The importance of frequent consumption of small quantities of water, up to 4 cups per hour, when the work environment is hot and employees are likely to be sweating more than usual in the performance of their duties;

- (d) The importance of acclimatization;

- (e) The different types of heat illness and the common signs and symptoms of heat illness;

- (f) The importance to employees of immediately reporting to the employer symptoms or signs of heat illness in themselves, or in co-workers;

(g) The employer's procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary.

(h) The employer's procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider;

(i) The employer's procedures for ensuring that, in the event of an emergency, clear and precise directions to the work site can and will be provided as needed to emergency responders.

Supervisor Training: Prior to assignment to supervision of employees working in the heat, training on the following topics shall be provided:

(a) The information required to be provided by the section above;

(b) The procedures the supervisor is to follow to implement the applicable provisions of this section.

(c) The procedures the supervisor is to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.

6. HEAT ILLNESS PREVENTION ELEMENTS

The elements reflected within this Heat Illness Prevention Plan are those contained in Title 8 of the California Code of Regulations, and consist of the following:

- A. Provision of Water
- B. Access to Shade
- C. Written Procedures
- D. Training

A. PROVISION OF WATER

To ensure access to sufficient quantities of potable drinking water, the following steps will be taken:

(a) Water shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift. Employees are encouraged to report to supervisor low levels or dirty water.

(b) Water levels should not fall below that point that will allow for adequate water during the time necessary to effect replacement.

(c) Disposable/single use drinking cups will be available to employees, or provisions will be made to issue employees their own cups each day.

To encourage frequent drinking of potable water, the following steps will be taken:

(a) Supervisors will provide frequent reminders to employees to drink frequently, and more water breaks will be provided.

(b) Reminders about the importance of frequent consumption of water throughout the shift will be shared.

(c) Water containers should be as close as possible to the workers.

B. ACCESS TO SHADE

To ensure access to shade at all times, the following steps will be taken:

(a) If other means of shade is not available, an adequate number of umbrellas, canopies or other portable devices will be put up. These devices should be placed in close proximity to the work activity.

(b) Employees may have access to offices or other buildings with air conditioning.

(c) Reminders about the importance of rest breaks and the location of shade will be shared.

To ensure that employees have access to a preventative recovery period, the following steps will be taken:

(a) The employees will be provided 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 5 minutes.

(b) Access to shade shall be permitted at all times.

C. WRITTEN PROCEDURES

To reduce the risk of heat-related illness (HI) and to respond to possible symptoms of HI, the following steps will be taken:

(a) All employees will be trained prior to working outdoors.

(b) Working hours will be modified to work during the cooler hours of the day, when possible.

(c) When a modified or shorter work-shift is not possible, more water and rest breaks will be provided.

To ensure that emergency medical services are provided without delay, the following steps will be taken:

- (a) Supervisors will continuously check all employees, and stay alert to the presence of heat related symptoms.
- (b) Supervisors will carry cell phones or other means of communication, such as handheld radios, to ensure that emergency services can be called, and check that these are functional at the work site prior to each shift.
- (c) Workers will be provided with the address and directions to the worksite and emergency procedures.

D. TRAINING

To ensure employees are trained, the following steps should be taken:

- (a) All employees will receive heat illness prevention training prior to working outdoors, especially all newly hired employees.
- (b) On hot days and during a heat wave, supervisors will review this important information with all workers.
- (c) Training will be in a language readily understandable to the employee.
- (d) Employees must be given the opportunity to ask questions at each training session.
- (e) Training records will be kept and provided to OSHA representatives upon request.

To ensure supervisors are provided training, the following steps should be taken:

- (a) At or near the time of inception of this Heat Related Illness Program, supervisors will be trained in the requirements as stated above.
- (b) Upon promotion to a supervisory position new supervisors will be trained in the requirements stated in (a) above.

7. FIRST AID FOR HEAT RELATED ILLNESSES:

Heat Cramps

- Heat cramps are muscular pains and spasms due to heavy exertion. They usually involve the abdominal muscles or the legs. It is generally thought that the loss of water and salt from heavy sweating causes the cramps.

- First Aid for heat cramps:

- (a) Have him/her stop activity and rest in a cool shady area.

(b) If he/she is fully awake and alert, have him/her drink small amounts of cool water or a commercial sports drink (water is best).

(c) Gently stretch the cramped muscle and hold for about 20 seconds, then gently massage the muscle. Repeat if necessary. If the victim has no other signals of heat-related illness, he/she may resume activity after the cramps stop.

Heat Exhaustion

- Heat exhaustion is the next, more serious stage of heat-related illness. It is signaled by:
 - (a) Cool, moist, pale skin (The skin may be red right after physical activity.)
 - (b) Headache
 - (c) Dizziness and weakness or exhaustion
 - (d) Nausea
 - (e) The skin may or may not feel hot
- First Aid for heat exhaustion:
 - (a) Get the person to a cooler shady area and have him/her rest in a comfortable position.
 - (b) If fully awake and alert, give a half glass of cool water every 15 minutes, do not let him/her drink too quickly. Do not give liquids with alcohol or caffeine in them, as they can make conditions worse.
 - (c) **Call 911** for medical assistance if the person refuses water, vomits, or loses consciousness.

Heat Stroke

- Heat stroke is the late stage of heat-related illness and is life threatening. Symptoms include:
 - (a) Vomiting
 - (b) Decreased alertness, confusion, or complete loss of consciousness
 - (c) High body temperature (above 103 degrees F, sometimes as high as 105 degrees F)
 - (d) Skin may still be moist or the victim may stop sweating and the skin may be red, hot and dry.
 - (e) Rapid weak pulse.
 - (f) Rapid shallow breathing. This stage of heat-related illness is serious and life threatening. **Call 911 immediately.**
- First Aid for heat stroke:
 - (a) **Help is needed fast. Call 911 for help immediately.**
 - (b) Move the person to a cooler shady area.
 - (c) Quickly cool the body. Wrap sheets around the body and fan it. If you have access to ice packs or cold packs, wrap them in a cloth and place them on each of the victim's wrists and ankles, in the armpits and on the neck to cool the large blood vessels. (Do not use rubbing alcohol because it closes the skin's pores and prevents heat loss.) Watch for signals of breathing problems and make sure the airway is clear. Keep person lying down. Stay with him/her until medical help arrives and takes over.

8. ACCESS TO MEDICAL FACILITIES

Employees working in the field should know where the nearest emergency medical facilities, including fire stations are located. If medical assistance is necessary, provide clear and precise directions to the worksite.

9. DISTRIBUTION

Distribution of the above policy/procedures includes all employees and supervisors.

HEAT SAFETY

Supervisor's Daily Checklist

☐ **WATER**

- Is there plenty of fresh, cool drinking water located as close as possible to the workers?
- Is there a plan for refilling water coolers throughout the day?

☐ **SHADE AND REST**

- Is a shade structure available at all times (regardless of the weather) for workers to rest and cool down?
- Is the shade structure up and ready when the weather forecast is 85°F or higher?
- Do you have a plan in place for checking the weather forecast?

☐ **TRAINING**

- Have workers been trained to recognize and prevent heat illness BEFORE they start working outdoors?
- Can workers identify symptoms of heat stress?
- Is there a special plan in place to allow workers to get used to the heat?

☐ **EMERGENCY PLAN**

- Does everyone know who to notify if there is an emergency?
- Can workers explain their location if they need to call an ambulance?
- Does everyone know who will provide first aid?

☐ **WORKER REMINDERS**

- Have workers been reminded to:
 - Drink water frequently?
 - Rest in the shade for at least 5-minutes as needed?
 - Look out for one another and immediately report any symptoms?

Heat Illness Prevention Training Points

Health Effects of Heat – Two types of Heat Illness:

Heat Exhaustion

Dizziness Cramps Weakness
Headache Nausea Vomiting
Sweaty Skin Fast Heartbeat

Heat Stroke

Red, hot, dry skin Convulsions
High Temperature Fainting
Confusion

Watch for early symptoms. You may need medical help. People react differently – you may have just a few of these symptoms, or most of them.

Stay Safe and Healthy: **WATER – REST – SHADE**

- Drink water even if you are not thirsty – Every 15 Minutes (make sure you have enough water to provide 4 cups or one liter every hour for each person)
- Rest in the shade
- Watch out for each other
- Wear hats and light-colored clothing

“Easy does it” on your first days of work in the heat. You may need to get used to it. Rest in the shade – at least 5-minutes as needed to cool down.

Be Prepared For an Emergency – *Heat kills – get help right away!*

If someone has symptoms:

1. Tell the person who has a radio/phone and can call the supervisor – you need medical help.
2. Start providing first aid while you wait for the ambulance to arrive.
3. Move the person to cool-off in the shade.
4. Little by little, give him/her water (as long as he/she is not vomiting).
5. Loosen his/her clothing.
6. Help cool him/her: fan, put ice packs in groin and underarms, or soak his/her clothing with cool water.

When you call 911 for help, you need to be prepared to:

Describe the symptoms.

Give specific and clear directions to your worksite: 4952 School House Road, CV

At our worksite we have:

WATER – SHADE (to rest and cool down) – TRAINING and an EMERGENCY PLAN

We are extra careful when there is a heat wave or when the temperature goes up.

Acclimatization

Acclimatization means temporary adaptation of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat. In fully acclimatized individuals, sweating starts faster and the sweat carries less salt and other minerals out of the body. As a result, by sweating more efficiently the body cools down faster. Also there is less demand on the heart and cardiovascular system. For the reasons given above, *being fully acclimatized can allow workers to continue working in warm or hot conditions and decreases the risk of heat illness and unsafe acts.*

In general, physically fit individuals become acclimatized about 50% faster than those individuals who are not physically fit. Overweight individuals may retain more body heat and therefore may be more prone to developing heat illness.

To minimize the risk of heat illness, encourage employees to report to their supervisors if they have:

- Returned to work after an absence
- Recently been working in cool climate and are just now starting work in a warm or hot climate
- Had a change in their work activities, locations, or conditions

Any of the above mentioned circumstances may mean that employees are not acclimatized to working in warm or hot environments, and are at greater risk for heat illness.

Make Sure Employees Are Trained, Monitored and Tracked Closely

Remember that employees who are not acclimatized to working in the heat are at greater risk for developing heat illness. Unacclimatized employees should not work alone. It is important to:

- Train employees and supervisors on the importance of recognizing and reporting heat illness symptoms
- Have supervisors and coworkers use a "buddy system" to watch each other closely for discomfort or signs of heat illness
- Set-up a system to account for the whereabouts of employees at appropriate intervals throughout the work shift and at the end of the work shift

Options for Acclimatizing Employees to Work in Warm or Hot Environments include One or More of the Following:

Have Employees Pace Themselves

- If they are not accustomed to working in warm or hot environments, they should start work slowly and pick up the pace gradually.

Reduce Physical Demands

- Assign employees to less physically demanding tasks during their first 14 days of working in a warm or hot environment.
- Schedule and provide frequent breaks. Supply sufficient amounts of drinking water

Start an Acclimatization Program

- These programs have employees work for progressively longer periods in warm or hot conditions where they are at risk for heat illness.
- One such program is suggested by *NIOSH (1986)*:

For employees who have previous experience at worksites where they are at risk for heat illness		For employees new to worksites where they are at risk for heat illness	
Day	# Hours Worked in Hot Environment	Day	# Hours Worked in Hot Environment
1	4	1	1.6 (96 minutes)
2	5	2	3.2 (192 minutes)
3	6	3	4.8 (288 minutes)
4	8	4	6.4 (384 minutes)
		5	8.0 (480 minutes)