

## HEAT ILLNESS PREVENTION PROGRAM

The purpose of the Heat Illness Prevention Program is to meet the requirements set forth in California Code of Regulations, Title 8, and to serve as a supplement to the District's Injury and Illness Prevention Program (Human Resources Procedure 1080.15). The Heat Illness Prevention Plan (HIPP) establishes procedures and provides information which are necessary to ensure that employees of the District are knowledgeable in the prevention and recognition of heat stress to ensure their own safety and the safety of others.

High temperatures and humidity stress the body's ability to cool itself. Heat illness can occur both in an indoor or outdoor environment. Training must be provided to all employees and supervisors to include information on identifying, evaluating and controlling exposures, symptoms, control measures, and the importance of drinking water, risk factors, emergency procedures and employee rights. Effective reduction of heat illness depends on written procedures, access to water, access to cooler areas, acclimatization and weather monitoring, emergency response and employee/supervisor training. Heat related illnesses are avoidable if employees and their supervisors are trained and the right actions are taken before, during, and after working in either indoor or outdoor hot conditions. High temperatures and humidity can stress the body's ability to cool itself making heat illness a big concern during hot weather months. Every employee whose job duties require them to work in the outdoors during summer months, are exposed to elevated heat conditions and therefore are susceptible to heat illness.

### PREVENTION

1. Frequent drinking of water. Water is a key preventive measure against heat illness. Supervisors are required to ensure access to drinking water, encourage the frequent drinking of water and be on the lookout for work situations that interfere with access to water, especially during a heat wave.
2. Resting in cooler areas. Rest breaks provide time for cooling and the opportunity to drink water. Employees must have access to rest breaks in cooled or air conditioned areas and away from sources of heat. Employees should be encouraged to take frequent breaks, especially if the employee is experiencing a headache or starting to feel overheated.
3. Acclimatization and weather monitoring. Acclimatization is a gradual and temporary adjustment of the body to working in the heat. ***Employees need several days to adjust when working conditions are significantly hotter than they are use to.*** Institute additional water and rest breaks during a heat wave. Employees should wear appropriate lightweight, light colored clothing and hats when working out in the sun.

Indoor workers face a higher risk of heat illness during periods of high temperatures if they are working in a building that is not adequately temperature controlled. An agreement with Local 1, signed June 1983, stipulates that work inside a building will not be conducted when:

- a. Temperature exceeds 80 degrees in buildings with fixed, unopenable windows,  
or
- b. Temperature exceeds 85 degrees in buildings with openable windows.

If either of the above conditions occurs, the employee should report the problem to his/her supervisor. The supervisor should verify that the room is too warm and then take immediate steps to try to bring the temperature down to an acceptable level. Failing that, the supervisor may temporarily relocate the

employee to a cooler room or send the employee home on administrative leave until the problem is corrected.

4. Employee and supervisor training. All employees and their supervisors need to know about the importance of frequent drinking of water and resting in cooled areas, the signs and symptoms of heat illness, how to respond and who to report to when someone feels sick and may need to go to the hospital. Supervisors who are trained make a significant difference in the outcome of heat illness cases. The effectiveness of a Heat Illness Prevention Program depends greatly on how well employees and their supervisors are trained.
5. Being prepared for emergencies. Written departmental procedures must include steps to be followed in an emergency which will ensure a rapid effective response, including instructing employees on who to call and how to administer first aid while help is in route.

#### **HEAT ILLNESS TYPES AND SYMPTOMS**

There are three major forms of heat illnesses:

##### **Heat Cramps**

Heat cramps are the most common type of heat related injury. Heat cramps are muscle spasms which usually affect the arms, legs, or stomach and frequently don't occur until sometime later after work or when relaxing. Heat cramps are caused by heavy sweating, especially when water is not replaced quickly enough. Although painful heat cramps do not result in permanent damage.

Prevention or first aid for heat cramps includes drinking electrolyte solutions such as Gatorade during the day and eating more fruits like bananas to help keep the body hydrated.

##### **Heat Exhaustion**

Heat exhaustion is more serious than heat cramps. It occurs when the body's internal temperature regulating system is overworked, but has not completely shut down. Heat exhaustion occurs when an employee does not drink enough fluids to replace what is lost sweating.

Symptoms of heat exhaustion include: headache, heavy sweating, intense thirst, dizziness, fatigue, loss of coordination, nausea, impaired judgment, loss of appetite, hyperventilation, tingling in hands or feet, anxiety, cool moist skin, weak and rapid pulse.

Prevention or first aid for heat exhaustion includes moving the employee to a cool location and having the employee lie down with feet slightly elevated. Apply cool, wet cloths or fan them. Have them drink water or electrolyte drinks. If the employee becomes non-responsive, refuses water, vomits or loses consciousness get the employee medical aid as soon as possible by calling Police Services or call 911 if necessary.

##### **Heat Stroke**

Heat stroke is a life threatening illness with a high death rate. Heat stroke occurs when the body has depleted its supply of water and salt, and the employee's body temperature rises to deadly levels. A heat stroke victim may first suffer heat cramps and/or heat exhaustion before progressing into the heat stroke stage. Heat stroke is sometimes mistaken for a heart attack. It is therefore very important that employees and supervisors be able to recognize the signs of heat stroke and to check for them anytime an employee collapses while working in a hot environment.

Symptoms of heat stroke include: high body temperature, a distinct absence of sweating; hot red or

flushed dry skin; rapid pulse; difficulty breathing; constricted pupils; and/all the signs of symptoms of heat exhaustion such as dizziness, headache, nausea, vomiting, or confusion, but more severe; bizarre behavior. Advance symptoms may be seizure or convulsions, collapse, loss of consciousness, and a body temperature of over 108 degrees.

Prevention or first aid is vital to lower an employee's body temperature. Quick action can mean the difference between life and death. Pour water on the employee, fan them or apply cold packs. Get the employee medical aid as soon as possible by calling Police Services or call 911 if necessary.

Co-workers should use a "buddy system" to watch each other closely for discomfort or symptoms of heat illness. It is important that any of the above signs and symptoms of heat illness be reported to a supervisor immediately. Supervisors and co-workers are encouraged never to discount any signs or symptoms of heat illness they or a co-worker are experiencing. At no time should an injured employee be left alone. A co-worker should stay with the injured employee and be ready to give emergency responders directions to the worksite where the injured employee is located.

#### **TRAINING**

All employees will receive heat illness prevention training prior to working outdoors. Supervisors and/or assigned work assignment leaders will be trained prior to being assigned to supervise outdoor workers.

Training in the following topics shall be provided to supervisors and employees:

1. The environmental and personal risk factors for heat illness;
2. The District's procedures for complying with the requirements of this standard;
3. 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;
4. The importance of acclimatization;
5. The different types of heat illness and the common signs and symptoms of heat illness;
6. The importance to employees of immediately reporting to the supervisor symptoms or signs of heat illness in themselves or in co-workers;
7. The District's procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary;
8. The site procedures for obtaining emergency medical services.
9. The site procedures for ensuring that, in the event of an emergency, clear and precise direction to the work site can and will be provided as needed to emergency responders.

CalOsha Title 8 CCR 3395