



San Bernardino County Probation Department

HEAT AND ILLNESS PREVENTION PLAN

Prepared By:

San Bernardino County Probation Department

Heat and Illness Prevention Plan

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San Bernardino County Probation Department

Heat and Illness Prevention Plan

I. Policy

This program established the San Bernardino County Probation Department operating procedures for preventing employee illnesses associated with exposure to heat. It provides information and guidance on:

- 1.) Preventive measures and employee training requirements pertaining to the prevention of heat illness and
- 2.) Response procedures that should be followed in the event an employee exhibits signs or symptoms of possible heat illness. It is intended to meet or exceed the requirements of California Code of Regulations, Title 8 Section 3395, Heat and Illness Prevention Plan and a supplement to the San Bernardino Heat and Illness Prevention Program.

II. Scope:

This program is meant to keep employees who work outdoors, safe from heat illness. This program does not apply to indoor work, but outdoor work areas, such as home calls, work crews, considered outdoor places of employment and those workers that fall under the scope of this program.

All employees who work outdoors are covered under this program. Positions and titles include but are not limited to:

Titles:

- Field Probation Officer I /II/III
- Field Supervisors
- Treatment Assigned Probation Corrections Supervisor I/II,
- Treatment Assigned Probation Corrections Officer

Duties:

- Home visits/ searches/ surveillance/ high risk warrant service
- Outdoor work crews or recreational activity off grounds or at remote locations

III. Responsibility:

Employees will be responsible for:

- Following this program;
- Reporting heat and illness symptoms to their supervisor;
- Observing co-workers for heat and illness symptoms;
- Maintaining personal protective equipment per manufacture recommendations;
- Following other safe practices listed within this document and taught during trainings.

Supervisors will be responsible for:

- Implementing this program;
- Monitoring employees under their supervision and contacting applicable emergency personnel if needed;
- Prior to extreme heat conditions or days when this plan becomes activated, remind officers to follow protocols by staying hydrated and seeking sufficient shade for cool down measures.

Department Safety Officer will be responsible for:

- Reviewing this program;
- Updating the program with regulatory changes;
- Provide initial training in the requirements of the plan to supervisors and employees who are covered by the requirements of this plan.

IV. Hazard Recognition:

Supervisors and employees shall maintain an awareness of working conditions when heat illness is likely to occur. Factors influencing heat illness include elevated air temperature, relative humidity, radiant heat from the sun and/or other sources, conductive heat sources (e.g., the ground), hot air movement, strenuous physical activity and the use of personal protective equipment (e.g., protective clothing, body armor, tactical vest, etc.).

V. Preventive Measures:

The following will apply whenever the temperature is expected to be 80 degrees F or higher (reference heat reference chart) and /or whenever the supervisor feels an employee will be at risk for heat illness (i.e. heat waves).

Climate Monitoring:

At the beginning of the work week, the supervisor of their respective unit, or designee should check the weather from a recognized source (National Weather Service) and remind employees who will be working in specific areas in the outdoors during heat waves or temperatures expected to reach 80 degrees F or more, to stay hydrated and utilize shade (air conditioned cars in between home calls). A quick briefing prior to the start of shift is the recommended way to communicate this information.

Supervisors should remind officers to take enough water that meets the 2 cups per hour minimum standard during high heat waves. A recovery break is required every hour during high heat waves. During the recovery break the employee should utilize the time to continue to hydrate.

Observation:

Employees will watch for heat illness symptoms with their partner or work crew partners, as a person suffering from heat illness may not recognize the symptoms they are experiencing. Employees will utilize breaks and 5 minute rest periods for cool off measures, such as an air conditioned car, drinking water in between home calls or during work crew utilizing shade as per the definition of shade as stipulated in this plan. Employees should look for physical changes or behavior changes in their partners during the rest periods. Should the employee or their partner begin to show signs or symptoms (physical changes or behavior changes) indicative of heat illness, report the information to a supervisor, and begin first aid measures.

Employees on medications that make them sensitive to heat illness should discuss the side effects/ corrective actions with their doctor and follow up with their supervisor prior to working in the heat.

Limiting Exposure of Heat Illness to Employees:

Employees should try to mitigate exposure by covering exposed parts of their body, keeping hydrated and taking cooling breaks/ rest breaks. Employees are required to be given a minimum of a 5 minute cooling rest break every hour if working in the heat. This can be

accomplished by finding suitable shade (i.e. shade tree or other shelter (EZ up/ Tent/ Patio Cover if assigned to a work crew, or in an air conditioned car between home calls).

Employees are encouraged to work in teams of two when possible, and not alone when in a hot environment and performing strenuous activities less than or equal to 30 minutes, except those with minimal physical labor and employees who are driving in air conditioning to and from home calls or work crew areas. Communication should be set up between employees and supervisors in the event of a heat illness to an employee, wherein a cell phone or radio for quick relay of information or periodic checks is possible.

Employees who are showing signs of heat illness should stop and get medical attention immediately.

Acclimatization:

All employees need to be acclimatized before/ during work in the heat. Acclimatization means the temporary adaption of the body to work in the heat that occurs gradually when a person is exposed to it. Acclimatization peaks in most people within two weeks of regularly working in the heat for at least two hours per day.

Drinking Water:

Water shall be provided to employees to equal one quart for every one hour of working outdoors per employee. To accomplish this, employees will take water bottles in quantities to meet the aforementioned requirement utilizing the bottled water available in all area and JDAC facility locations prior to working outdoors. OSHA recommends adding ice to the water when temperatures are over 90 degrees F because cool water adds the benefit of directly cooling the body upon consumption.

Employees are encouraged to drink water every 15-20 minutes and to take their cooling breaks, but are discouraged from drinking other liquids such as coffee, sugar drinks, sports drinks, in lieu of water.

In certain situations 5 gallon water jugs can be used and filled with ice prior to working outdoors during activities such as, physical agility testing, work crew areas, range, or any other event held outdoors for a prolonged period of time. There should be sufficient amounts of water for the employees who will be working outdoors and ways to replenish the water source. Should the water run out during the shift, employees have the option return to the offices or JDAC facilities to replenish their water or obtain water from the nearest Fire Station or County yard.

Water can be provided in two ways;

1. Employees may fill up their water bottles or jugs from their house or utilize their bottled water source.
2. Utilize the bottled water source located in each office and JDAC facility.

Shade:

“Shade” means the blockage of direct sunlight. Shade may be provided by any natural or artificial means that does not expose employees to unsafe or unhealthful conditions. There is sufficient sun blockage when objects do not cast a shadow in the area of shade. Shade is not adequate when heat in the area of shade defeats the purpose of shade. For example, a car exposed to the sun does not provide acceptable shade to a person inside of it, unless the car is running with the air conditioning turned on.

The amount of shade present shall be enough to accommodate 25% of the employees on a work crew, physical agility test area, range, or other event, wherein employees are able to sit in a normal posture in the shade without having physical contact with each other. All employees must have access to shade at all times and a shade location must be within 2.5 minute walk of the work site.

Three methods that can be used to shade employees:

1. **Trees and Vegetation** in the open air and/ or with cross winds is the preferred method of cooling an employee. The trees/ vegetation must be sufficient enough to provide shade- fleck of sunlight are acceptable as long as the overall shade provides substantial blockage of the sunlight.
2. **Vehicles** may be used for heat illness prevention. Vehicles may be idled with the air conditioning running for a period of time to prevent heat illness during extreme temperatures.
3. **“Pop-ups”, “Shade ups”, canopies or umbrellas** (“Shading Device”) may be used only for stationary activities (i.e. physical agility testing, range, other event) where access to trees/vegetation or usage of a vehicle is limited or non-existent.

Personal Protective Equipment:

Clothing worn by employees should be lightweight, preferably light colored. If light colored clothing is not part of the uniform attire, breathable fabric that allows airflow and air movement is recommended. Shirts with long sleeves cover the body and protect against sunburn but also slightly affect the body’s ability to cool itself.

Employees wearing body armor, tactical vests, hats, should be aware of the added heat load while worn in high heat. Access to shade and hydration as well as cooling breaks may need to be more often than the 5 minute recovery breaks per hour. Employees working together should observe one another for signs and symptoms that may occur related to heat illness.

VI. Emergency Medical Services:

Sworn employees shall be trained in First Aid and CPR and the basic responses to heat illness so they may act as a first responder when a heat illness injury occurs.

When an employee has been impacted with a heat related illness, or any emergent medical condition, the Department has the following process in place:

1. When an employee appears to be suffering from a heat illness, notify a supervisor and begin cool down/ first aid measures. If employee is unresponsive and cool down measures are not working contact 9-1-1 immediately. Use a public telephone, work cellular telephone, or a private cellular telephone, or mobile/ hand talkie radio. All 9-1-1 calls for emergency service (including most cellular telephone calls) are received by Dispatch. Advise Dispatch that an employee is suffering from a heat stroke emergency. Do not hang up; Dispatch will require further information from the calling party. Notify your chain of command after calling 911.
2. If the affected employee is able to walk, get them out of the sun, begin active cooling/ first aid measures for heat illness, and advise Dispatch of the employee's location. Be as precise as possible. If the dispatcher requests that the employee be moved to a location that is easier for emergency services (Police and Fire/EMS responders) to access, advise the dispatcher if you think that can be done without further injury.
3. If the employee cannot be re-located, provide Dispatch with the precise location. If other employees are available, direct them to the nearest cross streets or areas to assist in directing emergency services to the patient.

Response to symptoms:

The symptoms of the appropriate responses to the various types of heat illness are outlined below.

Transient Heat Fatigue: temporary state of discomfort and mental strain arising from prolonged heat exposure.

- a. Symptoms: general feeling of tiredness or fatigue and usually results in a decline in task performance, coordination, alertness, and vigilance.
- b. Response: replace fluids, rest and gradual acclimatization.

Heat rash: occurs when the sweat glands become plugged on areas of the skin that are kept wet, such as the armpits and the groin area. It is usually a minor injury unless the area becomes infected.

- a. Symptoms: itchy red bumpy rash.
- b. Response: rest in the shade and dry off affected skin.

Heat Cramps: occur as a result of salt and potassium (electrolyte) depletion. Usually a minor illness which leaves no long term effects if treated properly.

- a. Symptoms: muscle pain, cramps or spasms.
- b. Response: rest in the shade, replenish with fluids and apply a moist cloth to cramps muscles (do not rub or massage).

Heat related fainting, otherwise known as syncope: occurs as a result of insufficient blood to the brain, caused by blood vessels on the skin drawing blood away from the brain and heart.

- a. Symptoms: dizziness, lightheadedness and/or fainting.
- b. Response: move to a shaded area and lie down with legs elevated until symptoms subside, remove any excess clothing or personal protective equipment, and replenish fluids gradually (slowly sip water or other non-caffeinated liquid).

Heat exhaustion: occurs when the body becomes overheated from the loss of fluids and salts. Heat exhaustion is the most common type of heat illness and is not life threatening if adequately recognized and responded to.

- a. Symptoms: headache, dizziness, weakness/fatigue, nausea or vomiting, pale appearance, reduced sweating, weak rapid pulse, dry mouth, thirst, possible chest pain, and moderately raised body temperature (101-104 degrees Fahrenheit).
- b. Response: move to a shaded area to cool and rest, remove any excess clothing or personal protective equipment replenish fluids gradually (slowly sip water or other non-caffeinated liquid) and place ice behind the head to facilitate cooling.

Heatstroke: occurs when symptoms of heat exhaustion are not treated and the body continues to become overheated until the body's cooling system shuts down. Heat Stroke is the most serious heat illness and should not be taken lightly. It can be fatal if not properly treated.

- a. Symptoms: dry, hot, reddish skin (no sweating) , swollen tongue, strong rapid pulse, abnormal blood pressure, unsteadiness, dizziness/fainting, vomiting, headache, chills, seizures, irritability/confusion, loss of consciousness, shock, rapid and shallow breathing, and/ or excessively high temperature.
- b. Response: immediately call 911 and give emergency personnel pertinent information and the location, move the victim to the shade, remove any excess clothing and personal protective equipment, begin cooling the victim by wrapping them with wet towels, cloths or cold compresses, , lightly spray the person with cool water and/or fan the victim with direct air , elevate their feet six to eight inches if the victim exhibits signs of shock; if the victim is suffering from seizures remove any nearby objects that could cause injury and do not have the victim drink water (they may aspirate).

VII. Training:

All employees whose positions and titles are identified in this plan will undergo initial training on the following topics:

1. The environmental and personal risk factors influencing heat illness.
2. The preventive measures mandated by this program.
3. How to read and understand the heat index.
4. The importance of frequent water consumption of water.
5. The importance of acclimatization.
6. The importance of personal protective equipment and how to use it properly.
7. The importance of reporting heat illness symptoms immediately.
8. The various types, signs, and symptoms of heat illness.
9. The responses to heat illness injuries (First Aid/CPR training provided in separate training).

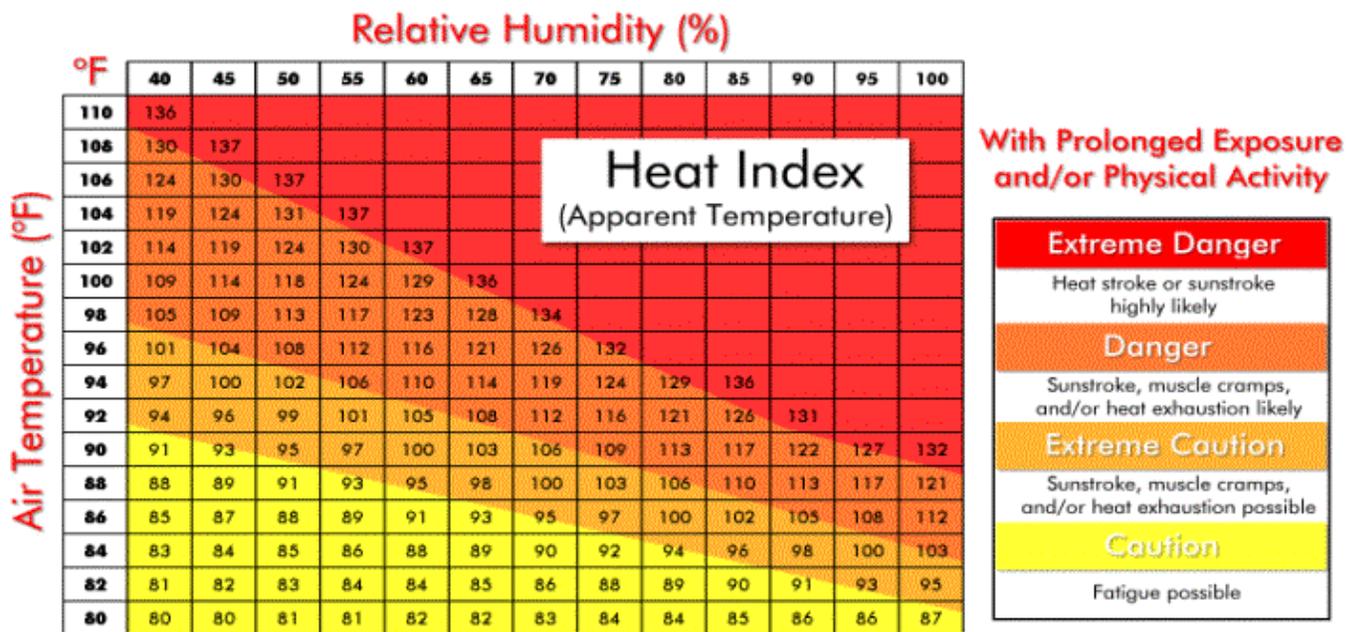
Supervisors of employees who work in conditions that pose a risk of heat illness shall be additionally trained on the following topics:

1. How to anticipate the risk of heat illness using the heat index
2. The procedure that shall be followed to implement the requirements of this program.
3. The procedures that shall be followed when an employee exhibits signs or symptoms of heat illness, including emergency response procedures.
4. Importance of cooling rest breaks

All training will be provided once a year for new employees not already trained whose positions and titles are identified in this plan. Short briefings will be conducted by supervisors or lead personnel in a unit when high heat is most prevalent usually through the months of June through October.

Appendix A

Heat Reference Chart



- **Caution Range:** Fatigue possible with prolonged exposure and/ or physical activity
- **Extreme Caution Range :** Heatstroke , heat cramps and heat exhaustion are possible with prolonged exposure
- **Danger Range:** heatstroke heat cramps and heat exhaustion with prolonged exposure
- **Extreme Danger Range :** Heatstroke is highly likely within 30 minutes of continued exposure.

Note: Employees exposure to direct sunlight and the type of Personal Protection used may during operation add additional 8-15 degrees to the employees heat load.