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## 6.1.1 Heat Illness Prevention Program

## 6.1 **Program Description**

The LAPD – FSD Criminalistics Laboratory Heat Illness Prevention Program (HIPP) is designed to comply with Title 8 Section 3395, Heat Illness Prevention, of the California Code of Regulations. Heat illness has always been a recognized work hazard in California. All heat related illnesses are preventable. Cal/OSHA requires employers in California to train workers regarding the hazards of working in the heat and in heat

related illness. The standard also requires employers to have a written plan that informs employees, supervisors, and managers of the regulatory requirements employers must adhere to related to heat related illness prevention.

The primary goal of the LAPD-FSD Criminalistics Laboratory Heat Illness Prevention Program (HIPP) is employee safety. The training and operational elements in this plan provides employees, managers, and supervisors with the tools necessary to anticipate environmental conditions that contribute to heat related illness, to recognize when work assignments place employees at risk, and what job instructions need to be communicated to employees regarding the prevention of heat related illness. Procedures for responding to symptoms of heat illness are also detailed in this program.

# 6.2 Scope

The LAPD – FSD Criminalistics Laboratory Heat Illness Prevention Program (HIPP) is intended to control the occurrence of heat related illness. The Heat Illness Prevention Program applies to Police Officers, Criminalists, Supervising Criminalists, Chief Forensic Chemists, Firearm Examiners, Laboratory Technicians, Architectural Drafting Technicians, and Forensic Photographers. The HIPP also applies to:

- All outdoor work areas and field response locations where environmental conditions cannot be adjusted by active cooling methods.
- Indoor or covered facilities where the air temperature meets or exceeds 95° F

• Any Criminalistics Laboratory employee who is required to wear or perform work in a full-body personal protective suit, regardless of interior or exterior ambient temperatures.

# 6.3 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 (fainting), 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 affects the body's water retention or other physiological responses to heat.

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

• 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 the area of blocked sunlight. Shade must be open to the air or provided with ventilation or cooling (example: an air-conditioned car).

#### 6.4 Responsibilities

## 6.4.1 Program Administrator

The Quality Manager is designated as the Heat Illness Prevention Program administrator and is responsible for the implementation and annual evaluation of the program. The Quality Manager can delegate this task. The program administrator will:

- Coordinate program reviews and revisions with laboratory management.
- Facilitate initial employee training.

## 6.4.2 Manager and Supervisor Responsibilities

Managers and supervisors will:

- Ensure that employee work assignments, both indoors and outdoors, are evaluated and the components of this HIPP are implemented when the established temperature/humidity thresholds are met or exceeded.
- Ensure that shade and water are provided to employees when required.
- Ensure that employees (under their supervision) have received the required training before being assigned to work outdoors.

• Remind applicable staff to review the heat illness prevention plan during a heat wave.

## 6.4.3 Primary Criminalistics Laboratory Responder

#### Responsibilities

• If the high temperature at the response locations is forecast to be over 80 °F, it will be noted on the Field Investigation Crime Scene notes.

• If the high temperature at the response locations is forecast to be over 80 °F, determine if water and shade are available. If either water or shade is not available, transport portable shade structure and/or water containers to the response location.

• Encourage Criminalistics Laboratory employees at the response location to drink water.

• Maintain the crime scene request form (or other unit specific form) in order to provide specific work site location information in an emergency (See Field Investigation Unit Crime Scene notes).

# 6.4.4 Employee Responsibility

Employees will:

- Comply with the requirements of this HIPP.
- Drink adequate amounts of water when environmental risk factors for heat illness are present.
- Immediately report any observed unsafe working conditions or heat illness symptoms to a supervisor.

# 6.5 Program Components

## 6.5.1 Provision of Water

Whenever environmental risk factors for heat illness exist, supervisors or a designee are responsible to ensure that clean, fresh, and cool potable water is readily available to employees.

One quart per employee per hour must be available. Water containers are stored in the Forensic Science Center, Stock Room (134) and must be brought to the response location if other sources of water are not available. The supervisor's or designee's responsibility is to ensure water supplies are replenished as necessary.

The primary responder shall encourage employees under their supervision to drink water. Employees must understand that thirst is not an effective indicator of a person's need for water, and it is recommended that individuals drink one quart of water per hour when working in high heat environments.

## 6.5.2 Access to Shade

Supervisors or the designee are responsible to ensure that employees have access to a shaded area within a reasonable distance from their work area. Employees believing a preventive recovery period is needed shall be provided access shade for a period of no less than five minutes. Such access to shade shall be permitted at all times. The interior

of a vehicle may be used to provide shade if the vehicle is air-conditioned. **Most field** response locations for Criminalistics Laboratory personnel are within or near structures that provide shade.

When a field response is requested and the high temperature at the response location is forecast to be over 80 °F (during the expected time frame for the response), the availability of shade and water must be documented on the <u>Field Investigation Unit</u> <u>Crime Scene Notes</u>. If adequate shade is not available, the following procedures will be implemented:

The primary responder will ensure that a portable shade structure is brought to the response location. When the temperature at the work location exceeds 80 °F, shade must be present and set up at the beginning of the response. Portable shade structure is stored in the Forensic Science Center Accessioning Room 117.\_

#### 6.5.3 Acclimatization

Acclimatization peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat. Due to the occasional nature of work assignments in high heat conditions, laboratory employees need to be aware of their lack of acclimatization. When working in high heat conditions, Criminalistics Laboratory personnel must take frequent breaks (preventive recovery period and hydration) and limit strenuous activity due to their lack of acclimatization.

## 6.6 Procedures for Responding to Symptoms of Heat Illness

If employees are experiencing any of the heat illness signs or symptoms they must:

- Immediately report these signs or symptoms to their immediate supervisors.
- If symptoms indicate heat cramps or heat exhaustion, the supervisor should follow the directions listed below.
- If symptoms indicate heatstroke, the supervisor should follow the directions listed below and immediately seek emergency medical attention.
- If there is any question as to the severity or treatment of an individual experiencing heat illness, call 911 for emergency medical assistance.

#### 6.6.1 Heat Cramps

The victim will feel muscle pains or spasms, usually in the abdomen, arms or legs. To treat heat cramps, do the following:

- Stop all activity and sit in an air-conditioned or shaded area.
- Drink cool water, clear juices or sports drinks.
- Seek medical attention if cramps continue.

## 6.6.2 Heat Exhaustion

**Heat Exhaustion** results from loss of body fluid through sweating when a worker has failed to drink enough fluids. The person with heat exhaustion still sweats, but experiences extreme weakness or fatigue, muscle cramps, dizziness, nausea, or headache. The skin is clammy and moist, the complexion pale or flushed, and the body temperature normal or slightly higher.

To treat heat exhaustion, do the following:

- Stop all activity and get into an air-conditioned or shaded area.
- Have the victim lie down and loosen clothing.
- Drink cool, not iced, water or sports drinks.
- Cool the person by spraying/sponging him or her with cool water and fanning.

• Monitor the person carefully. Heat exhaustion can quickly become heatstroke. If fever, fainting, vomiting, confusion or seizures occur, call 911 for emergency medical assistance.

## 6.6.3 Heat Stroke

Heat Stroke is the most serious health problem for workers in hot environments, and is caused by a failure of the body's internal mechanism to regulate its core temperature. Sweating stops and the body can no longer rid itself of excess heat. Heat stroke is a life threatening medical emergency and can be fatal unless treated immediately.

Symptoms include:

- Mental confusion, delirium, loss of consciousness, convulsions or coma.
- A body temperature of 103 degrees Fahrenheit or higher.
- Hot, dry skin (no sweating) which may be red, mottled, or bluish.

To treat heat stroke, do the following:

- Call 911 for emergency medical assistance.
- Stop all activity and get the victim into an air-conditioned or shaded area immediately.
- Cool the victim immediately by spraying/sponging him or her with cool water and fanning.
- Remove as much clothing as possible (maintain privacy for the victim).
- Immersing the victim in a cold water bath or spraying the victim with cool water from a garden hose is also effective.
- Maintain an open airway.

• Do not give anything by mouth (even water) if the person is unconscious or semi-conscious.

## 6.7 Emergency Medical Contact Procedures

For any emergency, always dial 911 for emergency medical assistance.

For <u>non-emergency</u> heat related illness, the employee will obtain medical treatment at a First Care Panel facility. A list of the First Care Panel facilities is available on the FSC Shared N drive of the Criminalistics Laboratory Local Area Network (OFCR->Safety Information->IOD Info).

Any injury or illness which occurs while on duty for the City of Los Angeles Police Department must follow current Department policy for documentation and reporting.

For additional information regarding the policies or procedures for workplace injuries or illness, use the following contact information:

LAPD Personnel Group, Personnel Division, Medical Liaison Section: (213) 486-4600

Dale Tongson, LAPD Safety Officer: (213) 486-4610 39311@lapd.online

Najma Bashar, City of Los Angeles Personnel Department – Safety Administrator: (213) 473-7097 (office), (213) 822-2570 (cell) najma.bashar@lacity.org

## 6.8 Training for the Heat Illness Prevention Program

#### Training Requirements

Employees subject to the working conditions described in the Scope section of the HIPP must be provided with heat illness prevention training. The training shall include the following information:

- Environmental and personal risk factors.
- The Heat Illness Prevention Program and procedures.
- The need to drink water frequently throughout the day.
- Importance of acclimatization allowing the body to adjust gradually to work in high heat.
- Types of heat illness and the signs and symptoms.
- Necessity of immediately reporting to a supervisor or designee any signs or symptoms of heat related illness.
- Procedures for responding to heat illness symptoms, including how emergency services will be provided should they become necessary.

• Procedures for contacting emergency medical services and if necessary, for transporting employees to a point where they can be reached by emergency medical service providers.

• Procedures for ensuring that, in the event of an emergency, directions to the work site can and will be provided as needed to emergency responders.

Supervisors shall receive training on the following topics prior to being assigned to supervise employees in high heat conditions:

• Procedures the supervisor shall follow to implement the provisions of this program.

• Procedures the supervisor shall follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.

Training is required under the following conditions:

- Initial employment and orientation.
- New unit assignment which has been designated to require heat illness prevention training.
- An employee is not following the Heat Illness Prevention Program (HIPP).