CSULB Indoor High Heat Plan

September 2022

Office of
Environmental, Health and Safety

I. Introduction

Heat illness has long been recognized as a potential community health hazard in California and across the nation. All heat-related illnesses are preventable. The primary goal of this CSULB Indoor High Heat Plan (IHHP) is occupant safety. The elements comprising these procedures will provide Academic Affairs staff and students with the tools necessary to anticipate environmental conditions contributing to heat-related illness and initiate mitigation and preventative measures to reduce heat-related health risks.

II. Plan Scope

This IHHP provides a framework to assess and reduce heat illness risk in main campus non-cooled indoor locations where environmental conditions cannot be mitigated by building engineering controls.

III. Responsibilities

Department Safety Coordinators (DSC) shall:

- Monitor five-day forecasts to anticipate heat waves or high heat periods. Work with college to develop academic plans for high heat periods.
- If upcoming forecast anticipates temperatures exceeding 90°Fahrenheit (F), communicate with college to commence heat high pre-planning activities.
- Communicate with EHS to confirm any readings over 87° Fahrenheit (F).
- Upon confirmation from EHS, provide written communication to College/Department regarding high heat alert for students and staff occupying affected area(s).
- Maintain student training records.

Beach Building Services shall:

- Install certified temperature monitoring devices in sample rooms identified by EHS
- Provide access to temperature monitoring web portal for DSC to track temperature during high heat events.
- Provide ice coolers for departments to use for supplying fresh, cool water to students.
- Ensure pre-designated cooling room is maintained a minimum of 5° Fahrenheit (F) cooler than non-cooled rooms.

Environmental, Health and Safety (EHS) shall:

- Provide heat illness prevention informational materials to DSC for dissemination.
- Provide heat illness prevention training.
- Maintain employee heat illness prevention training records.

Students shall:

- Comply with IHHP requirements, including any training issued.
- Drink adequate amounts of hydrating fluids when environmental conditions are conductive to developing heat illness and/or when experiencing heat illness-related symptoms.
- Report symptoms of heat-related illness promptly to appropriate faculty/coordinator.

Staff / Faculty shall:

- Comply with IHHP requirements.
- Drink adequate amounts of hydrating fluids when environmental conditions are conductive to developing heat illness and/or when experiencing heat illness-related symptoms.
- Acknowledge and assist students seeking assistance for heat-related illness and call 9-1-1 to request emergency medical services in the event medical assistance is required.

IV. High Heat Procedures

Note: Nothing in this program prevents an individual college/department from encouraging good heat-related work practices when local temperatures are hot but do not reach the thresholds detailed below.

When the forecasted external temperature is expected to reach 90°F; OR When the indoor temperature exceeds 87° F:

1. DSC communicates high-heat hazard alert to building occupants.

2. College to move/re-schedule/postpone/AMI or cancel courses during the high-heat event. (refer to college-specific high heat plan).

3. DSC to provide high-heat information to building occupants in a manner and method at their discretion.

4. In coordination with BBS Facilities, DSC designates a cooling center to include ice chests stocked with fresh, cool water and provide a minimum relief of 5° Fahrenheit (F) temperature difference through the use of mechanical cooling devices such as fans, portable air conditioning units, swap coolers and/or other short-term engineering controls and methods.

5. Department/college staff to acknowledge and assist students seeking assistance for heat-related illness and call 9-1-1 to request emergency medical services in the event medical assistance is required.

6. DSC continues to monitor temperature and maintain cooling center open until the internal room temperatures drop below 87° F or the weather forecast anticipates significant cooling/end of the heat wave.

California State University, Long Beach
Office of Environmental, Health & Safety
Heat-Related Emergencies Procedure

Working in Southern California in the summer and early fall months can expose students/employees to relatively high temperatures, and at times high humidity. When these two environmental factors are combined, they can create an increased risk of heat-related illness. The following information is presented to inform students/employees regarding the types of heat related illness, how to avoid being affected by the heat, and what to do in case a heat-related emergency occurs. Normally, the body regulates internal temperature by letting heat escape through the skin and by evaporating sweat (perspiration). If the body does not cool properly or does not cool enough, the victim may suffer a heat-related illness. Anyone can be susceptible, although the very young and very old are at greater risk. Heat-related illnesses can become serious or even deadly if unattended.

Definitions

Heat Wave: More than 48 hours of high heat (90F or higher) and high humidity (80 percent relative humidity or higher) are expected.

Heat Index: A number in degrees Fahrenheit that tells how hot it really feels with the heat and humidity. Exposure to full sunshine can increase the heat index by 15°F.

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.

Heat Exhaustion: Heat exhaustion is less dangerous than heat stroke. It typically occurs when people exercise heavily or work in a warm, humid place where body fluids are lost through heavy sweating. Fluid loss causes blood flow to decrease in the vital organs, resulting in a form of shock. With heat exhaustion, sweat does not evaporate as it should, possibly because of high humidity or too many layers of clothing. As a result, the body is not cooled properly. Signals include cool, moist, pale, flushed or red skin; heavy sweating; headache; nausea or vomiting; dizziness; and exhaustion. Body temperature will be near normal.

Heat Stroke	Also known as sunstroke, heat stroke is life-threatening. The victim's temperature control system, which produces sweating to cool the body, stops working. The body temperature can rise so high that brain damage and death may result if the body is not cooled quickly. Signals include hot, red and dry skin; changes in consciousness; rapid, weak pulse; and rapid, shallow breathing. Body temperature can be very high—sometimes as high as 105°F.

Stages of Heat-Related Illness

Heat-related illness usually comes in stages. The signal of the first stage is heat cramps in muscles. These cramps can be very painful. If you are caring for a person who has heat cramps, have him or her stop all activity and rest. If the person is fully awake and alert, have him or her drink small amounts of cool water or a commercial sports drink containing electrolytes. Gently stretch the cramped muscle and hold the stretch for about 20 seconds, then gently massage the muscle. Repeat these steps if necessary. If the victim has no other signals of heat-related illness, the person may resume activity after the cramps stop.

The signals of the next, more serious stage of a heat-related illness (often called heat exhaustion) include:

- Cool, moist, pale skin (the skin may be red right after physical activity).
- Headaches
- Dizziness and weakness or exhaustion
- Nausea
- The skin may or may not feel hot.

Symptoms of late stage heat-related illness (often called heat stroke) include:

- Vomiting.
- Decreased alertness level or complete of consciousness.
- High body temperature (sometimes as high as 105F).
- Skin may still be moist or the victim may stop sweating and the skin may be red, hot and dry.
- Rapid, weak pulse.
- Rapid, shallow breathing.

This late stage of a heat-related illness is life threatening. If you are on campus property, **call 9-1-1 immediately from any landline. If calling on a cell phone, call University Police at (562) 985-4101.**

General Care for Heat-Related Emergencies

1. Cool the Body
2. Give Fluids
3. Minimize Shock

For Heat cramps or Heat Exhaustion:

- Move the person to a cooler place and have him/her rest in a comfortable position.
- If the person is 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 worsen the condition.
- Remove or loosen tight clothing and apply cool, wet cloths such as towels or wet sheets.
- **If the person refuses water, vomits or loses consciousness, call 9-1-1 immediately from any landline. If calling on a cell phone, call University Police at (562) 985-4101.**

For Heat Stroke:

- Call **9-1-1** immediately from any landline. If calling on a cell phone, call University Police at **(562) 985-4101**.
- Move the person to a cooler place.
- Place the person flat on the floor, with arms and legs spread slightly apart.
- Quickly cool the body. Wrap wet sheets around the body and fan it. If you have 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 ensure that the airway is clear.

Tips For Preventing Heat-Related Illness

Prevention of heat related illness is preferred to treatment of patients with heat- related illness. The types of preventative measures employees can take to reduce the risk of a heat related illness include:

- Dress for the heat. Wear lightweight, light-colored clothing. Light colors will reflect away some of the sun's energy. It is also a good idea to wear hats or to use an umbrella.
- Drink water. Carry water or juice with you and drink continuously even if you do not feel thirsty. Avoid alcohol and caffeine, which dehydrate the body.
- Eat small meals and eat more often. Avoid foods that are high in protein which increase metabolic heat.
- Avoid using salt tablets unless directed to do so by a physician.
- Slow down. Avoid strenuous activity. If you must perform any strenuous activity, do it during the coolest part of the day, which is usually in the morning between 4:00 a.m. and 7:00 a.m.
- Stay indoors when possible. Take regular breaks when engaged in physical activity on warm days. Take time out to find a cool place. If you recognize that you, or someone else, is showing any symptom of a heat-related illness, immediately stop the activity and find a cool place.

Detailed information regarding heat-related illness can be obtained in the following web sites:

https://www.dir.ca.gov/dosh/heatillnessinfo.html

https://www.dir.ca.gov/dosh/doshreg/Heat-Illness-Prevention-Indoors/Draft-revisions-Apr-22-2019.pdf

https://www.osha.gov/heat-exposure