PERRIS UNION
HIGH SCHOOL DISTRICT

Heat Illness Prevention Plan

CCR Title 8, § 3395

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Introduction

Purpose

The purpose of this policy is to protect PUHSD staff from the possibility of illness as a result of high heat conditions. The guidelines identified in this plan establish the minimum requirements for responding to high heat conditions. These guidelines are not exhaustive; reason and good judgment must be used at each site to protect staff from heat illnesses and unhealthy air conditions.

Section 1

Heat Index

Heat Index is a combination of temperature and humidity. The employee heat index protocol (Appendix A) outlines actions to ensure staff working outdoors have access to cool water and shade. All staff need to understand the risks of working in the heat and how to prevent and respond to symptoms of heat illness.

Heat Index Alerts

PUHSD through the Earth Networks online weather network generates Employee Heat Index Alert emails. These alerts are sent to notify supervisors if the heat index level rises to one of the corresponding levels on the heat index protocol. Supervisors are to clearly communicate to their employees the correct measures needed to protect themselves based on the employee heat index protocol, including:

- Providing access to cool drinking water
- Access to shade
- Ensuring effective communication by voice, observation, or electronic means is maintained so that employees at a work site can contact a supervisor or emergency services if needed

Section 2

Heat Illness

What is Heat Illness?

Heat Illness means a serious medical condition resulting from the body's inability to cope with a particular heat load and can include:

1. **Heat Cramps-** Painful spasms of muscles caused by the body's loss of salt and lack of water replenishment.

2. **Heat Rash-** also known as prickly heat, is skin irritation caused by sweat that does not evaporate from the skin.

3. **Heat Exhaustion-** Cool, moist, pale, flushed skin, heavy sweating, headache, nausea or vomiting, dizziness or weakness caused by the body's loss of fluids.

4. **Heat Syncope-** A person standing erect and immobile may faint; caused by blood vessels in lower extremities that dilate causing blood to pool rather than return to the heart to be pumped to the brain (dizziness or fainting).

5. **Heat Stroke-** Sweating stops, confusion, loss of consciousness, irrational behavior, muscle twitching, rapid/weak pulse, headache, shallow breathing, unusually hot & dry skin with a high body temperature. **This is a medical emergency!**

   Survival depends on how quickly the individual can be cooled down. Before help arrives, it is necessary to:

   1. Have the victim lie down in a shady area or get them indoors.
   2. Soak clothing in cool water or remove clothing, apply cool water to skin followed by fanning to stimulate sweating.
   3. Apply ice packs to the groin and armpits.

Section 3

Risk Factors

Risk factors for heat illness can be environmental or personal.

Environmental Risk Factors can include:

- Air temperature
- Indoor temperature above 82 degrees Fahrenheit
- Relative humidity
- Radiant heat from the sun & other sources
- Conductive heat sources (the ground)
- Air movement
- Workload severity & duration
- Protective clothing and heavy personal protective equipment

Personal Risk Factors can include:

- Age
- Weight
- Physical fitness
- Metabolism
- Water consumption
- Prescription drugs
- Alcohol consumption
- Caffeine consumption
- Level of acclimatization
- Any other factors that alter one's ability to retain water or respond to heat

It is important for you to understand:

- How the body handles heat
- How to recognize the symptoms
- The risk factors, both personal and environmental

- How to prevent heat illness by staying hydrated, using shade, acclimatization, and taking rest breaks

Section 4

Heat Illness Prevention

Prevention of Heat Illness

Employees need to stay hydrated, take frequent breaks if outside, and watch for any of the following signs or symptoms related to heat illness:

- Headache
- Dizziness
- Weakness or muscle pains
- Nausea and vomiting

If any of the above symptoms are present, employees should get to and remain in a cool place and drink water to prevent dehydration.

Acclimatization

- Temporary adaptation of the body to work in the heat occurs gradually when a person is exposed to it.
- Peaks in most people within four to fourteen days of regular work for at least two hours per day in the heat.
- Take extra precautions until you are acclimated.

Consumption of Fluids

The most important thing you can do to prevent heat illness is drink plenty of fluids (water).

- Drink small quantities in frequent intervals.
- Thirst is not an indicator of dehydration - if you are thirsty, you are already dehydrated.
- Drink about three to four 8-ounce glasses (one quart) of fluids (water) per hour.

Shade

- Blockage of direct sunlight
- Direct sun can add as much as 15 degrees to the heat index
- Umbrellas and canopies can create shade, but must not allow shadows to be cast under them.
- Wide brim hats can decrease the impact of direct heat.
- If possible, take your breaks in the shade.
- Access to shade is permitted at all times.

Recognizing Symptoms

Effective treatment of heat illness requires action when early warning signs appear. Symptoms can quickly progress to a worsening condition. The Heat Illness - Signs, Symptoms and First Aid Measures table (Appendix C) outlines the different heat illnesses and their corresponding symptoms.

When in doubt, call 911.

First Aid Measures

The Heat Illness - Signs, Symptoms and First Aid Measures table (Appendix C) outlines the different heat illnesses and their corresponding First Aid Measures.

Appendix A

Employee Heat Index Protocol

PERRIS UNION HIGH SCHOOL DISTRICT

PUHSD Employee Heat Index Protocol
(Heat Index = combination of Temperature and Humidity)

Heat Index	Risk Level	Protective Measures
80˚ - 90˚ Heat Index	Caution	• Provide access to drinking water • Ensure that adequate medical services are available • Plan ahead for times when Heat Index is higher, including heat safety training • Encourage workers to wear sunscreen • Acclimatize workers If workers must wear heavy protective clothing, perform strenuous activity or work in the direct sun, additional precautions are recommended to protect workers from heat-related illness.
91˚ to 103˚ Heat Index	Moderate	In addition to the steps above: • Remind workers to drink water often (about 4 cups/hour) • Review with workers how to recognize, prevent and respond to heat illness • Schedule frequent breaks in cool, shaded areas • Acclimatize workers • Set up buddy system/ instruct supervisors to watch workers for signs of heat-related illness • Encourage workers to wear sunscreen and use other protections from direct sunlight. If workers must perform strenuous activity or work in the direct sun, additional precautions are recommended to protect workers from heat-related illness. • Schedule activities at a time when the heat index is lower • Develop work/rest schedules • Monitor workers closely

103˚ to 115˚ Heat Index	High	Additional precautions to protect workers: ● Alert workers of high risk conditions ● Actively encourage workers to drink plenty of water (about 4 cups/hour) ● Limit physical exertion ● Have a knowledgeable person at the worksite who is well informed about heat-related illness and able to determine appropriate work/rest schedules ● Establish and enforce work/rest schedules ● Adjust work activities (e.g., reschedule work, pace/rotate jobs) ● Use cooling techniques ● Watch/ communicate with workers at all times When possible, reschedule activities to a time when heat index is lower.
>115˚ Heat Index	Very High to Extreme	Reschedule non-essential activity for days with a reduced heat index or to a time when the heat index is lower. Move essential work tasks to the coolest part of the work shift; consider earlier start times, split shifts, or evening and night shifts. If essential work must be done, in addition to the steps listed above: ● Alert workers of extreme heat hazards ● Establish water drinking schedule (about 4 cups/hour) ● Develop and enforce protective work/rest schedules ● Conduct physiological monitoring (e.g., pulse, temperature, etc) ● Stop work if essential control methods are inadequate or unavailable

Appendix B

Heat Index Chart

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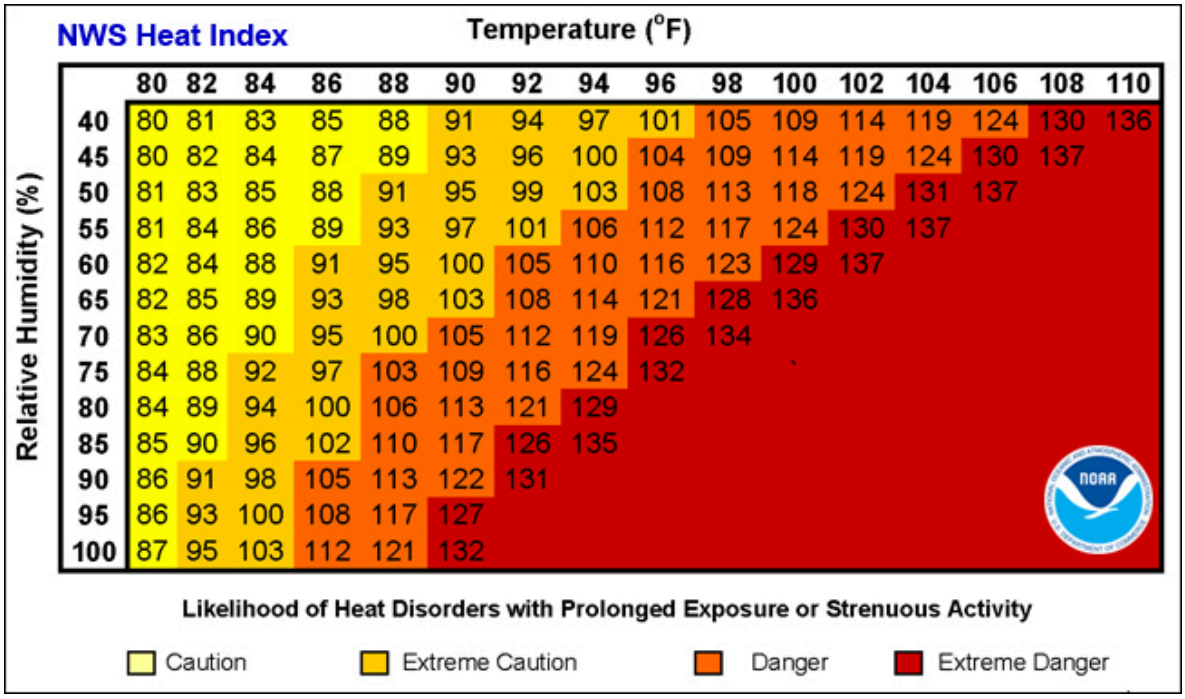
Heat Index Chart
(Heat Index = combination of Temperature and Humidity)



Appendix C

Heat Illness - Signs, Symptoms and First Aid Measures

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Recognizing Symptoms of Heat Illnesses and First Aid Measures

Heat Illness	Signs/Symptoms	Treatment
Heat Rash	• Clusters of red bumps or blisters on skin • Often appears on neck, upper chest, groin, or elbow creases	• Try to work in a cooler, less humid environment when possible • Keep the affected area dry
Heat Cramps	• Muscle spasms • Pain • Usually in abdomen, arms, or legs	• Have worker rest in a shady, cool area • Have worker drink water or a sports drink • Wait a few hours for cramps to go away before doing any more physical activity **Have worker seek medical attention if:** • Cramps don't go away
Heat Exhaustion	• Heavy sweating • Cold, pale and clammy skin • Fast, weak pulse • Breathing fast and shallow • Painful Muscle cramps • Extreme weakness or fatigue • Nausea and/or vomiting • Dizziness • Headache • Body temperature normal or slightly high • Fainting	• Have employee sit or lie down in a cool, shady area • Loosen clothes • Give worker plenty of water or cool sports drink to drink • Cool worker with cool compresses/ice pack if available **Take employee to clinic or emergency room for medical evaluation if:** • Symptoms worsen or do not improve within one hour

Heat Syncope	• Sudden Dizziness • Lightheadedness • Loss of consciousness **(Victims normally recover consciousness rapidly after they faint)**	• Move employee to cool and shaded area • Help the employee to sit or lie down as they begin to feel symptoms • Elevate employees legs to promote blood returning to the heart • Give employee water or sports drink
Heat Stroke	• No sweating because the body cannot release heat or cool down • Mental confusion, delirium, convulsions, dizziness • Hot and dry skin • Muscles may twitch uncontrollably • Pulse can be rapid and weak • Throbbing headache, shallow breathing, seizures and/or fits • Unconsciousness and coma • Body temperature may range from 102 - 104 ºF or higher within 10-15 minutes	• **Call 911 right away - heat stroke is a medical emergency!** • Move the employee to a cool, shady area • Loosen clothing, remove outer clothing • Fan air on worker; cold packs in armpits • Wet employee with cool water; apply ice packs, cool compresses, or ice if available • If the muscles begin to twitch uncontrollably, keep the person from self-injury. Do not place any objects or fluids in mouth. • If the worker is awake and alert enough to swallow, give cool water. The worker may need help to sit up enough to not choke. Most people suffering heat stroke will have an altered state of consciousness, and cannot swallow fluids safely. • Stay with employee until help arrives

CCR Title 8 Section 3395 Heat Illness Prevention in Outdoor Places of Employment

https://www.dir.ca.gov/title8/3395.html

What is Heat Illness?

https://www.dir.ca.gov/dosh/etools/08-006/WhatIs.htm#typesof