



Heat Illness Awareness

Larry Neal

Safety Officer- SVM

Cell - (530) 219-3543

Office - (530) 752-9257

Email – laneal@ucdavis.edu



Heat Illness Awareness

Employees working in outdoor places of employment or in other areas at times when the environmental risk factors for heat illness are present, are at risk for developing heat illnesses if they do not protect themselves appropriately.



HEAT ILLNESS

A potentially serious medical condition resulting from high temperatures and humidity that stress the body's ability to cool itself. The major forms of heat illnesses: **heat cramps, heat syncope/fainting, heat exhaustion, and heat stroke.**



Authority

Title 8 of the California Code of Regulations,
Section 3395.



HEAT CRAMPS

Heat cramps are muscle spasms which usually affect the arms, legs, or stomach. Heat cramps are caused by heavy sweating, especially when water is replaced by drinking, but does not contain salt and/or potassium.

TREATMENT

- Move to a cool shaded area
- Loosen clothing
- Drink electrolyte solutions such as Gatorade during the day and try eating more fruits like bananas (potassium replacement)
- Studies have shown that commercially available carbohydrate-electrolyte replacement liquids are effective (low sugar)
- Gentle stretching or massage
- Seek medical care if cramps persist- may indicate muscle injury (destruction)

SYNCOPE / FAINTING

Brain does not receive adequate oxygen due to blood pooling in extremities

Onset may be rapid and unpredictable

Prodromal symptoms may include nausea, yawning, sighing and restlessness

Skin may appear pale and sweaty but generally moist and cool

Pulse may be weakened; heart rate rapid



TREATMENT

- Move to cool/shaded environment
- Elevate feet
- Encourage fluids
- Recovery is usually immediate
- Loss of consciousness is *brief* and *self-limited*
- Always think about heat stroke and heat exhaustion

HEAT EXHAUSTION



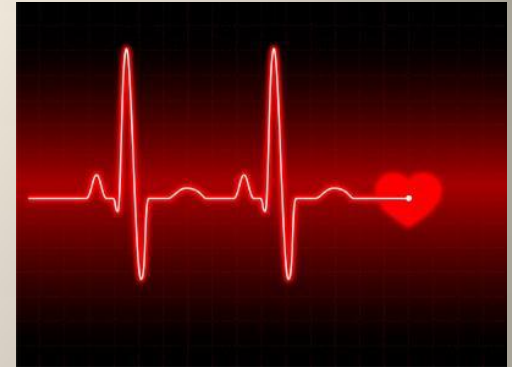
Heat exhaustion is more serious than heat cramps. This happens when you don't drink enough fluids to replace what you're sweating away. The symptoms of heat exhaustion include: headache, heavy sweating, intense thirst, dizziness, fatigue, loss of coordination, nausea, impaired judgment, loss of appetite, hyperventilation, tingling in hands or feet, anxiety, cool moist skin, weak and rapid pulse.

TREATMENT

- Move to cool location, shade, air-conditioning
- Rest
- Loosen clothing
- Cool shower, sponge bath, ice packs
- Drink water or electrolyte drinks
- Check by medical personnel recommended
- Avoid strenuous activity for at least a day

HEAT STROKE

**This Is a Medical Emergency!
Call 911**



Heat stroke is a life threatening illness with a high death rate. It occurs when the body has depleted its supply of water and salt, and the victim's body temperature rises to deadly levels.

The early visual symptoms of heat stroke include a high body temperature; a distinct absence of sweating (usually); hot red or flushed dry skin; rapid pulse; difficulty breathing; constricted pupils; any/all the signs or symptoms of heat exhaustion such as dizziness, headache, nausea, vomiting, or confusion, but more severe; bizarre behavior.

TREATMENT (Until ER arrives)

- It is vital to lower a heat stroke victim's body temperature. Move to a cool/shaded area. Seconds count.
- Pour water on them, fan them, or apply cold packs.
- Call 911 Emergency Response and get an ambulance on the way as soon as possible.
- Continue to cool down patient until help arrives.

PRECAUTIONS AND PREVENTION

Condition yourself for working in hot environments.

Access to Water- Hydration Drink lots of liquids.

Access to Shade- Take frequent breaks.

Cool off for a few minutes before going back to work.

Wear lightweight, light colored clothing when
working out in the sun

Monitor cumulative exposure



WATER. REST. SHADE.

The work can't get done without them.

Heat Illness Prevention Additional Elements:

Weather Monitoring and Acclimatization

Develop Specific Procedures Including

Emergency Response

Employee and Supervisory Training

Drink water often

Rest in the shade

Report heat symptoms early

Know what to do in an
emergency

LMS eCOURSE AND RESOURCES

UCD EHS Heat Illness Prevention Training

UCD Heat Illness Prevention Procedures Manual

<http://www.99calor.org/english.html>

<http://www.dir.ca.gov/DOSH/HeatIllnessInfo.html>

California Code of Regulations Title 8. Section 3395. Heat Illness Prevention.

The Heat Illness Prevention standard is applicable to any outdoor workplace, whenever environmental or personal risk factors for heat illness are present.

**HEAT ILLNESS CAN BE
PREVENTED!**