HEAT ILLNESS PREVENTION TRAINING

2014

Risk Management/Environmental Health & Safety

PURPOSE

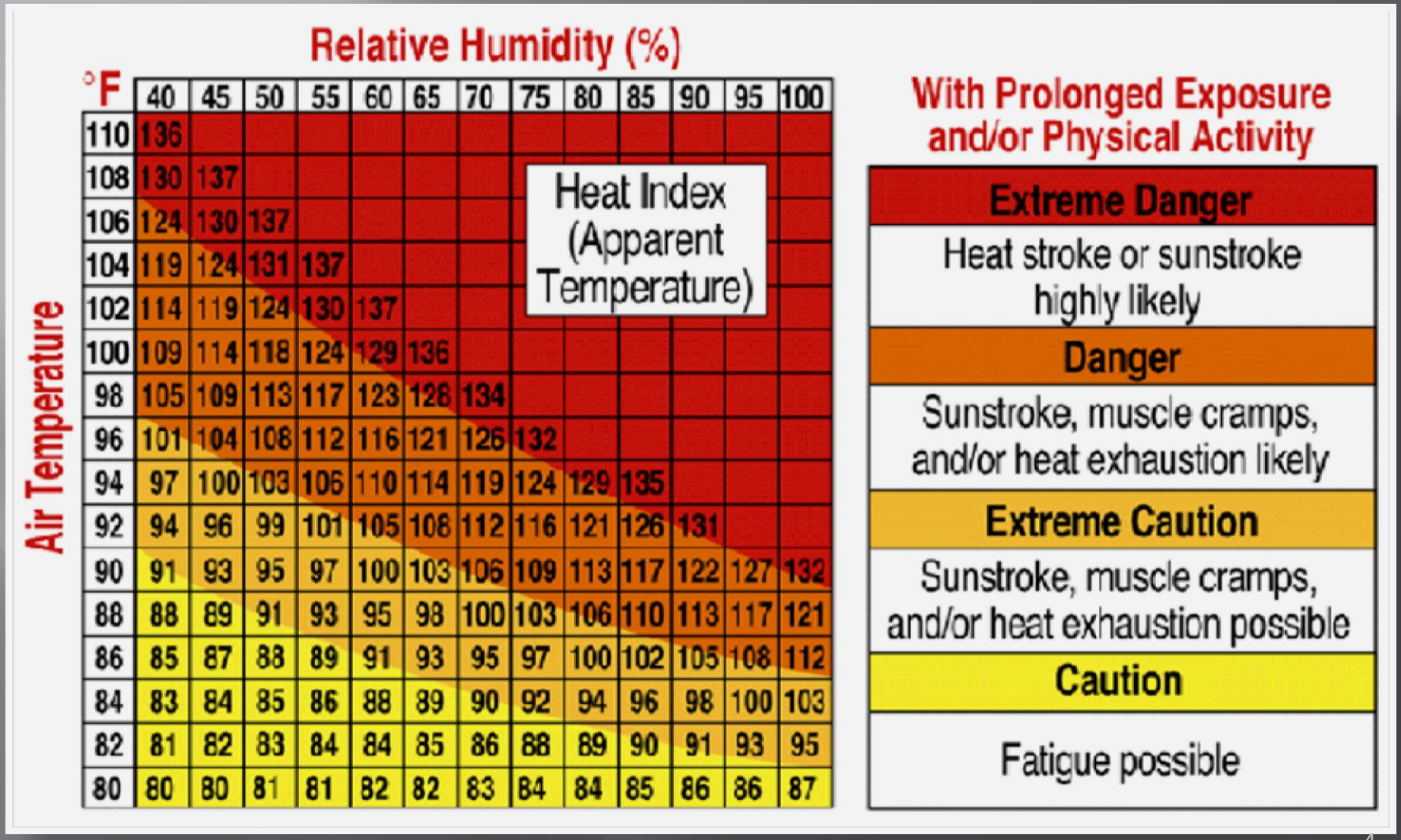
- Convey requirements of 8 CCR 3395.
- Training must be provided to all field personnel supervisory and non-supervisory employees.
- Identifying, evaluating and controlling exposures, symptoms, control measures, the importance of drinking water, risk factors, emergency procedures, and University procedures.



Environmental Factors

- Working conditions that create a possibility for heat illness:
  - Working in direct sunlight
  - Temperature above 85 deg. [Cal OSHA Trigger]
  - Elevated humidity
  - PPE that slows cooling
  - Workload & Duration

Heat Index Chart



What do YOU Need?

- Water
- Shade
- Rest

Risk Factors

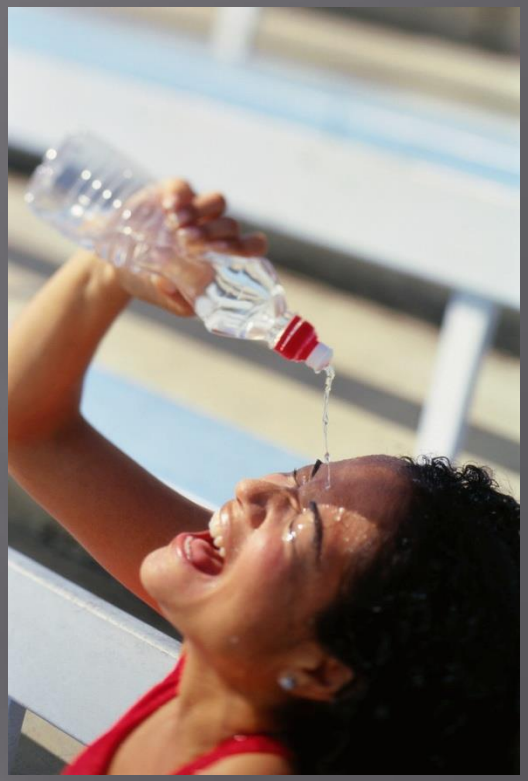
- Unaccustomed to working in heat.
- Physical exertion - work at a pace that can be sustained.
- Medications.
- Wearing PPE that traps body heat.
- Overweight generates more heat.
- Over age 65, may have less body water and lower sweat efficiency.



Work Together when possible, <u>especially</u> in remote Areas.

Water

- Employers required to provide sufficient access potable water at the beginning of the work shift.
- Provide one quart per employee per hour per shift.



- 1 quart X 8 hrs. = 2 Gallons for every employee/day.
- 1 quart = 2 pints

DRINK WATER!!

- Drink water before and during work in the heat. Electrolyte drinks are OK. Other beverages will not replenish your body!

- Avoid alcohol, sugary, carbonated and caffeinated drinks.





Shade

- Employees … **"suffering from heat illness or believing a preventative recovery period is needed** shall be provided access to an area with **shade** that is either open to the air or provided with ventilation or cooling **for a period of no less than five minutes."**

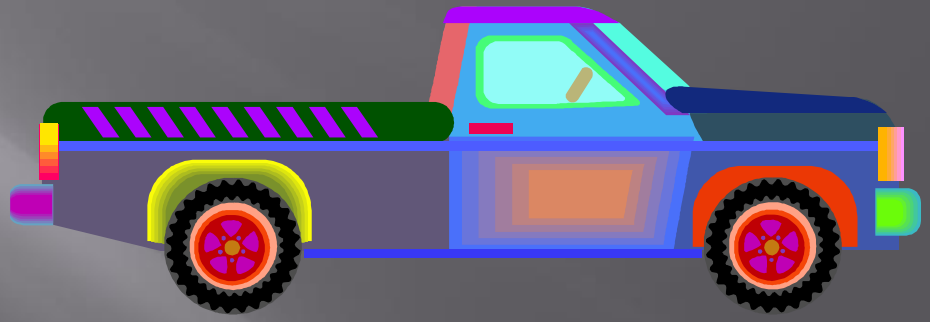
(Cal OSHA)



…such access to shade shall be permitted at all times…

Find Shade!

- 5-Minute cool-down rest period per hour.
- Alternate cooling methods if shade is not readily available.
- > 85 deg. accessible shade close to work.



A vehicle can provide shade if there is effective and operating A/C.

If No A/C, then NO Vehicle!

Heat Illness Symptoms

Heat Exhaustion

- Headache
- Feeling faint, dizzy, weak
- Nausea
- Muscle cramps
- **Cool skin**, **heavy sweating**, increased pulse

Heat Stroke

- **Hot, dry skin**
- Rapid breathing
- Delirium
- Convulsions
- Unconsciousness or marked abnormal mental status

Another Cal OSHA trigger: >95 deg. F
Supervisors observe workers for heat illness symptoms and ensure communication exists for relaying problems.

Heat Cramps



- **Heat cramps-** occurs when the body has lost:
  - too much salt to sweating

    or,
  - is low on other electrolytes.

- What to do- drink Water.

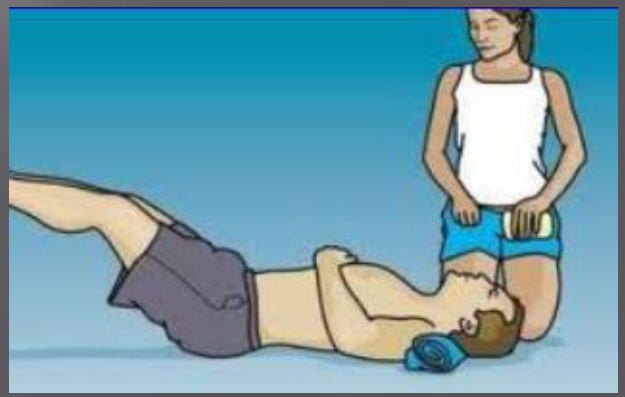


Heat Exhaustion



- **Heat exhaustion-** the body can't replace fluids/salt lost in sweating.

- What to do- Move to a cool place.
- Loosen clothing, apply wet compress to skin.
- Drink Water slowly
- Elevate feet 8-12 inches.



DANGER!!

- **Heat Stroke -** the body no longer sweats, fluid is reserved for core functions (blood flow and respiration) Dangerous increase in body temperature (>105 deg.).

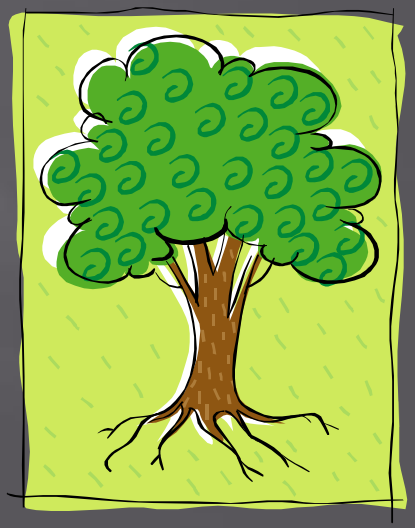
- Can lead to delirium, convulsions, unconsciousness and death.

- Call 911!



Review Program at Employee Pre-Job/Task Meetings

- Ensure that there is at least 2 gallons of water/each employee/8 hour shift.
- Point out areas that may provide shade at your work site- Trees, Vehicles, umbrellas, etc.
- Review & discuss periods of excessive temperature/humidity.
- Discuss how employees recognize symptoms and call for help – Use a buddy system.



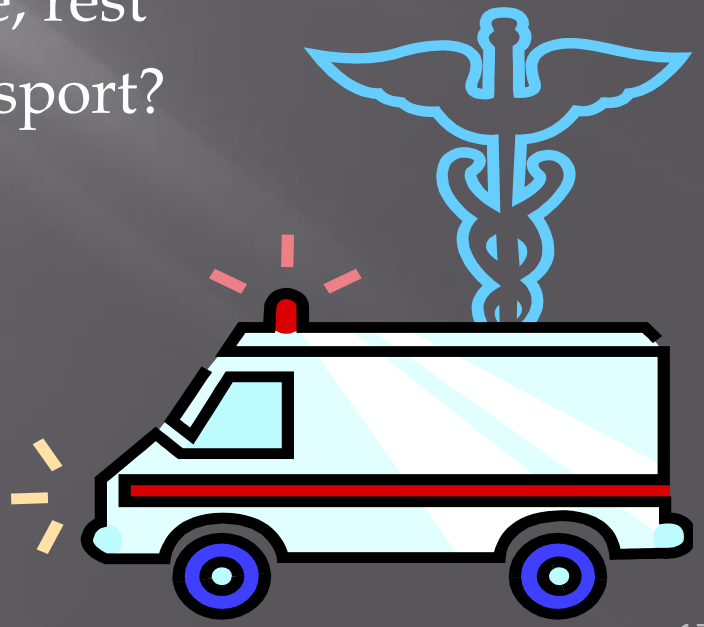
A Brief Video Reinforcement

http://www.youtube.com/watch?v=9iyvlkVQm14



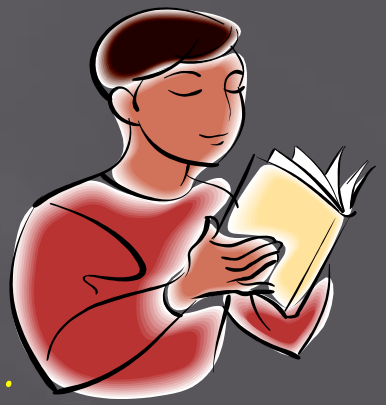
Emergency Procedures

- Plan and Discuss what to do in advance of an employee's complaint or visible signs of heat stress, heat exhaustion or heat stroke.
  - Communications, buddy systems, radios, phones
  - Local treatment: water, shade, rest
  - Clinic evaluation. What transport?
- Emergency (heat stroke):
  - get to shade
  - cool body down fast.
  - Call 911
  - all actions immediate



Reporting an Injury

- Report all injuries to your Supervisor.
- Additionally – heat-related injury/illness MUST be reported to Risk Mg/EHS office.
  - Section 6.8.5. in University Heat Illness Prevention Program.
  - *The Supervisor and/or Leadperson shall notify the University EHS Office and the Workers' Compensation Coordinator upon the identification and diagnosis of an employee suffering symptoms or exposure to a heat-related illness. This shall occur as soon as practical but no longer than 24 business hours from event .*



Test Questions

- The most dangerous form of Heat related illness is?
  - A) Heat Cramps
  - B) Heat Stroke
  - C) Heat Exhaustion

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Heat Stroke is the most dangerous and can be fatal.

How to Protect Yourself.

- The best type of beverage to help prevent heat stress is?
  - A) Gatorade
  - B) Beer
  - C) Water

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- Water is the best defense against heat related illnesses.

Who is at Risk?

- You may be more likely to experience heat stress if you are..
  - A) over weight
  - B) Older
  - C) Not use to working in the heat.
  - D) All of the above

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- The symptoms of heat stroke are:
  - A) Slow pulse, numbness in extremities
  - B) Chills, high body temperature, and lack of sweating.
  - C) Dilated pupils.

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- Call 911 or transport employee to nearest hospital.

Shade Provision

- If I feel heat stress how long can I stay in the shade to recover?
  - A) until the end of my shift
  - B) at least 5 minutes
  - C) until lunch

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- If you are suffering from heat illness or need a recovery period… shade shall be provided for no less than 5 minutes.

Questions??

- Call your EHS Office at 3-3531.

  or,

- Or ask your Supervisor or Leadperson.

STAY SAFE AND BE PROACTIVE