

Heat Awareness Training

Keep employees safe in the heat

U.S. HEAT STROKE STATS

- At least **300** deaths/year
- **7421** deaths from 1979-1998
- **1700** deaths in 1980 alone
- Causes more deaths annually than hurricanes, lightning, tornadoes, floods, and earthquakes combined
- **18** high school and college football player deaths since 1995

How the Body Handles Heat

The body tries to keep a constant internal temperature

As internal temperature rises from activity, the body cools itself by:

- Increasing blood flow to skin surface
- Releasing sweat onto skin surface

When the body can no longer cool off, mild symptoms of heat illness can quickly turn serious and life-threatening

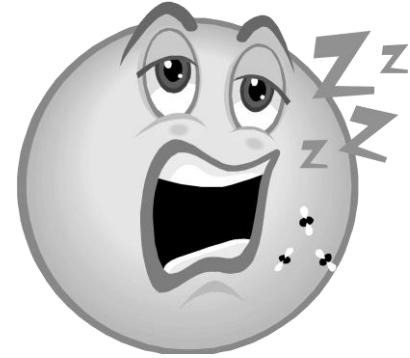
If the body cannot reduce its temperature through increased blood circulation and sweating if:

- The air temperature is too high
- There is too much humidity in the air
- The person is dehydrated
- We are doing strenuous work

All of these will make the body begin to store heat!

Effects of Body's Response

- Reduced blood flow to brain
 - Reduced mental alertness and comprehension
- Reduced blood flow to active muscles
 - Fatigue, loss of strength
- Increased sweating
 - Slipperiness



**Potential result of = a Higher rate of mistakes/injuries
too much heat**

Heat Illness

- Natural bodily systems fail to cool the body
- Very high body temperatures can be lethal

Heat-related illnesses include:

- Heat rash - skin irritation from excessive sweating
- Heat cramps - muscle pains or spasms
- Heat exhaustion - can precede heatstroke
- Heatstroke - a life-threatening illness



Heat Illness – Heat Rash

Signs and symptoms:

- Clusters of red bumps on skin
- Often appears on neck, upper chest, folds of skin
- Common problem in hot work environments

What to do:

- Try to work in a cooler, less humid environment when possible
- Keep the affected area dry



Heat Illness – Heat Cramps

Signs and symptoms:

- Muscle spasms
- Pain
- Usually in abdomen, arms, or legs
- Can be a first sign of worsening heat-related illness

What to do:

- Have worker rest in shady, cool area
- Drink water or other cool beverages
- Wait a few hours before allowing returning to strenuous work
- Seek medical attention if cramps don't go away



Heat Illness – Heat Exhaustion

Signs and symptoms:

- Heavy sweating
- Weakness
- Cold, pale, and clammy skin
- Fast, weak pulse
- Nausea or vomiting
- Headache, dizziness, lightheadedness

What to do:

- Move to a cooler location
- Lie down and loosen clothing
- Apply cool, wet cloths to as much of the body as possible
- Sip water
- Seek medical attention immediately for prolonged vomiting



Heat Illness – Heat Stroke

Signs and Symptoms:

- Very high body temperature (above 103°F)
- Hot, red, dry or moist skin
- Rapid and strong pulse
- Possible fainting, confusion, or seizures



What to do:

- **Call 911 immediately — this is a medical emergency.**

While waiting for emergency services:

- Move the person to a cooler environment. Do **NOT** give fluids.
- Reduce the person's body temperature with cool cloths or even a bath.

Heat Illness Standard - Water

- One quart per person, per hour (2 gallons for an 8-hr shift)
- Potable water is better than ice cold water
- Educate workers and actively encourage them to drink small amounts of water often (up to 4 cups/hour)



HUMAN RISK FACTORS

- Poor nutrition
- Poor physical condition
- High and low % body fat
- Previous heat illness
- Lack of acclimatization
- Over 40
- Illness (diabetes, asthma)
- Pregnancy
- Diet plans

Supervisor Guidance

Work Planning and Supervision

- Worker acclimatization

People adapt to weather changes within 4-14 days. To minimize the risk of heat illness:

- Employees shall be closely monitored by supervisor/designee during a heat wave*
- For new employees and those returning from extended leave/ illness, closely monitor them for 14 days by:
 - Directly observing them, or
 - Having a mandatory buddy system

*OSHA defines heat wave as temperatures of 80 degrees F or warmer and at least 10 degrees F warmer than the average daytime temperature of the previous 5 days

Work Planning and Supervision

High Heat Procedure-- when outdoor temperatures higher than 95°F, supervisors shall:

- Regularly monitor employees for alertness and signs/ symptoms of heat illness via:
 - Direct supervision, buddy system, phone/radio communication, and/or other means of observation.
- Conduct pre-shift meetings to review:
 - How employees are to be monitored during the day
 - Reminder to drink plenty of water throughout the day
 - The employee right to take cool down rests as needed

Heat Stress Training

	Warehouse: Tier 1	Warehouse: Tier 2	Tier 3/Shipping
85-88	Green	Green	Yellow
89-93	Green	Yellow	Orange
93-96	Yellow	Orange	Red
96-99	Orange	Red	Red
99+	Red	Red	Red

tTTemperatures determined by temp logger readings

Preventative Measures

Encourage employees to drink water(4 cups per hour), plan ahead for increased temps. Talk with associates about what to do during increased temps.

Extra 5 minutes to break/lunch, remind to drink 4 cups of water an hour, set up a buddy/watch system to check on each other.

Extra 15 minute break, work location rotation schedule, encourage drinking water(4 cups an hour) and visits to cooling stations.

Coolers with water at supervisor's desk, extra 15 minute break, work location rotation schedule and enforced, enforce drinking fountain/cooling station rotation for area

Rotating employees in/out of areas can reduce the heat impact.

Example: at 96 degree, load a truck for 20 minutes, work 40 out of the truck, would reduce the potential for heat illnesses even in extreme heat.

Make a plan today, be ready for the heat, it is no time to scramble for a plan.