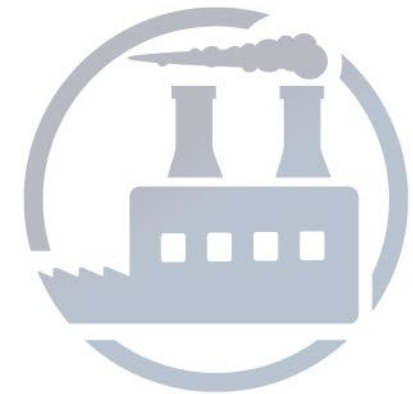




IS SAFETY ONE OF YOUR PRODUCTS?

Heat Stress

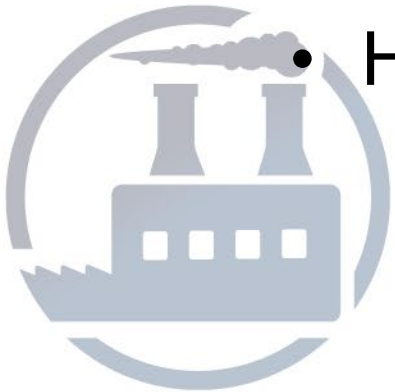
Heat Stress



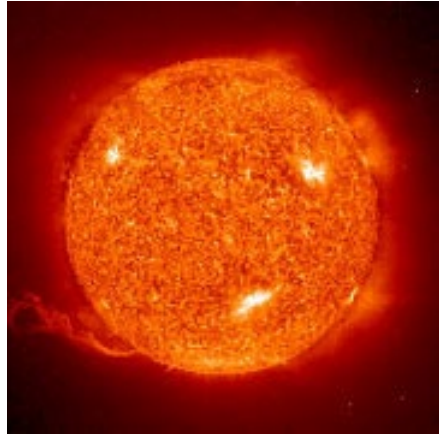
Objectives

Learn about:

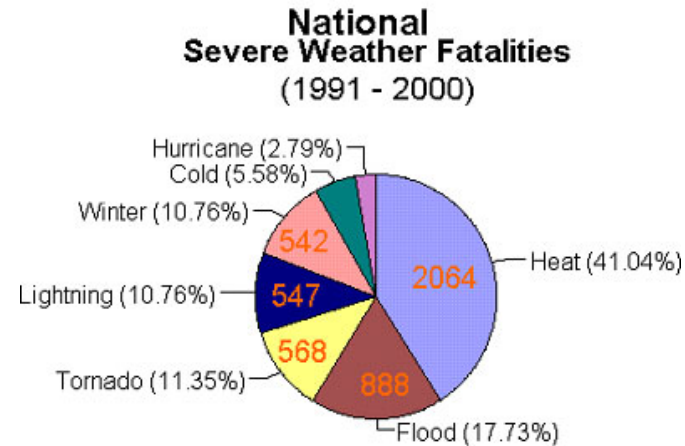
- Heat stress facts.
- Causes of heat stress.
- Those at high risk.
- Heat stress symptoms and treatment.
- How to prevent heat stress.



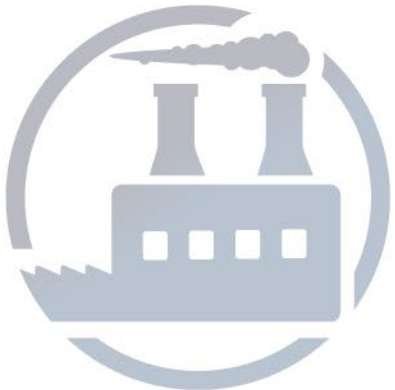
Severe Weather Fatalities



“...heat is by far the number one killer of all weather events.”



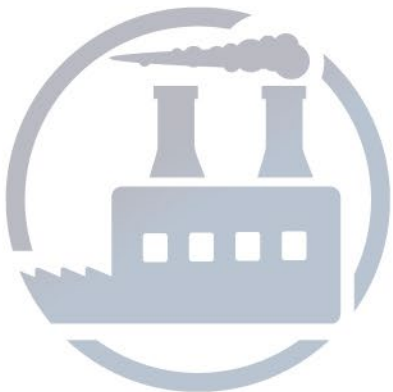
- From 1979–2003, excessive heat exposure caused 8,015 deaths in the United States.
- During that time period, more people in this country died from extreme heat than from hurricanes, lightning, tornadoes, floods, and earthquakes combined.



Extreme Heat Plus Humidity

HEAT INDEX CHART

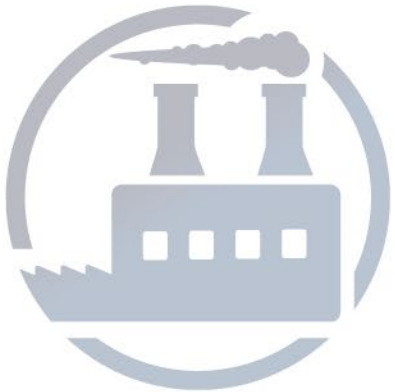
		RELATIVE HUMIDITY								
		10 %	20%	30%	40%	50%	60%	70%	80%	90%
TEMPERATURE F°	104°	98	104	110	120	>130	>130	>130	>130	>130
	102°	97	101	108	117	125	>130	>130	>130	>130
	100°	95	99	105	110	120	>130	>130	>130	>130
	98°	93	97	101	106	110	125	>130	>130	>130
	96°	91	95	98	104	108	120	128	>130	>130
	94°	89	93	95	100	105	111	122	128	>130
	92°	87	90	92	96	100	106	115	122	128
	90°	85	88	90	92	96	100	106	114	122
	88°	82	86	87	89	93	95	100	106	115
	86°	80	84	85	87	90	92	96	100	109
	84°	78	81	83	85	86	89	91	95	99
	82°	77	79	80	81	84	86	89	91	95
	80°	75	77	78	79	81	83	85	86	89
	78°	72	75	77	78	79	80	81	83	85
	76°	70	72	75	76	77	77	77	78	79
	74°	68	70	73	74	75	75	75	76	77



HI	Possible Heat Disorder
80° F–90° F	Fatigue possible with prolonged exposure and physical activity.
90° F–105° F	Sunstroke, heat cramps, and heat exhaustion possible.
105° F–130° F	Sunstroke, heat cramps, and heat exhaustion likely, and heat stroke possible.
>130°F	Heat stroke highly likely with continued exposure.

Causes of Heat Stress

- High temperatures in the workplace
- Humidity; direct sun on building or workforce
- Enclosed work space
- Limited air movement
 - No air conditioning
 - Lack of fans
- Physical exertion
- Rapid work processes without break
- Poor physical condition
- Lack of fluids
- Drug or alcohol use



Those at High Risk

- Children younger than 4 years and adults older than 65 years may not compensate for heat stress efficiently and are less likely to sense and respond to change in temperature.
- People who are overweight may be prone to heat sickness because of their tendency to retain more body heat.



Those at High Risk

- People who overexert during work or exercise may become dehydrated and susceptible to heat sickness.
- People who are physically ill, especially with heart disease or high blood pressure, or who take certain medications, such as for depression, insomnia, or poor circulation, may be affected by extreme heat.



Heat Stress

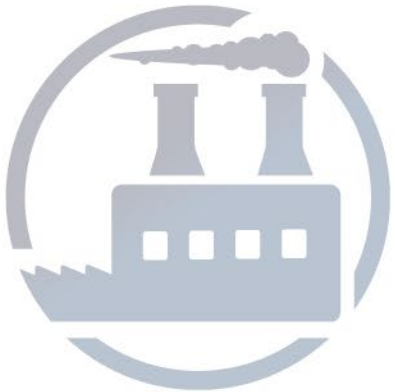
Symptoms

- Dizziness, lightheadedness, feeling faint
- Cramps, headache, nausea, chills
- Loss of consciousness and confusion
 - May be a sign of heat stroke: call 911.



Treatment

- Move to a cool, shaded area.
- Provide cool drinking water.
- Loosen or remove heavy clothing.
- Fan the person or mist with water.
- Elevate the legs.
- If symptoms continue, dial 911.



Hypohydration

- Hypohydration (less than normal total body water) **increases core temperature** responses during exercise and work in temperate and hot climates.
- If you lose 1 percent of body weight in water, it elevates core temperatures.
- You will not feel thirsty until you have incurred a water deficit of approximately 2 percent of body weight.



Drink Water!

Heat-acclimated persons (with increased sweating rates) who do not drink often may more rapidly experience the adverse effects of hypohydration than their non-acclimated counterparts.



Drink Often

- Drink plenty of fluids.
 - During hot weather you will need to increase your fluid intake, regardless of your activity level. **Don't wait until you are thirsty to drink.** During work in a hot environment, drink two to four glasses (16 to 32 ounces) of cool fluids each hour.

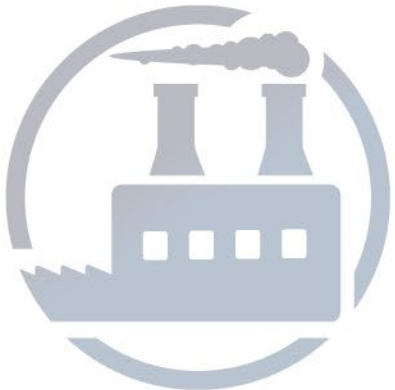


Warning

- If your doctor generally limits the amount of fluid you drink or has you on water pills, ask how much you should drink while the weather is hot.
- Don't drink liquids that contain large amounts of sugar. Avoid very cold drinks, because they can cause stomach cramps.

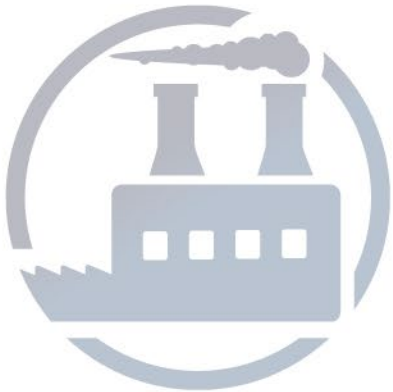
Wear Light Clothing

- Wear light clothing to allow free air movement and sweat evaporation.



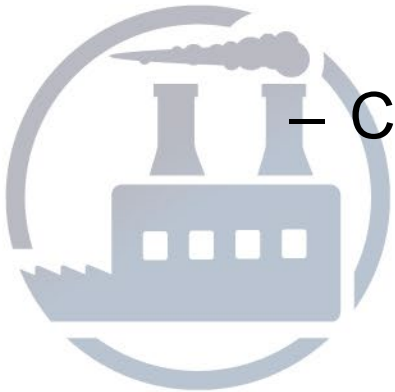
Engineering Controls

- Try to work in cool areas or in the shade.
- Increase air movement (fans).
- Reduce physical demands of work.



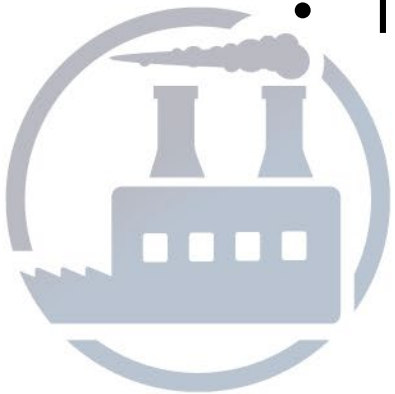
Heat Stress

- If you experience the symptoms of Heat Stress:
 - Contact your supervisor
 - Move to a cooler or shaded area
 - Drink cool water
 - Loosen or remove heavy clothing
 - Use a fan or mist to cool off
 - Call 9-1-1 if loss of consciousness occurs.



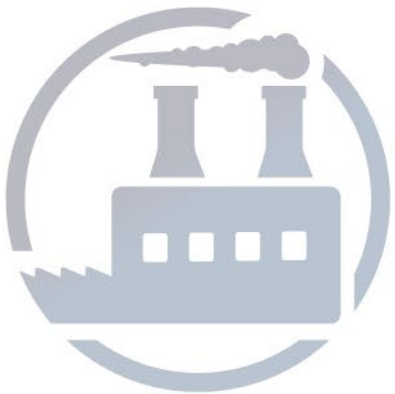
Incident Reporting

- Complete an accident/incident report
 - Who, what, where, when, how, why
 - Supervisor should respond to the incident and take action
 - Description of the incident from other employees' perspective
 - Description of the surroundings, including weather conditions
 - Circumstances preceding the accident
- Take pictures, if camera is available.



Summary

- ✓ Heat stress facts
- ✓ Causes of heat stress
- ✓ Those at high risk
- ✓ Heat stress symptoms and treatment
- ✓ How to prevent heat stress



**Stay cool this
summer!**