

Everyday Safety

Tailgate Talks

Heat Stress Safety

This Everyday Safety Tailgate Talk is written using information provided by the Occupational Safety and Health Administration (OSHA), Cornell University, and the Ohio State University Agricultural Extension

Heat stress is a buildup of body heat generated either internally by muscle use or externally by the environment. Heat exhaustion and heat stroke result when the body is overwhelmed by heat. As the heat increases, body temperature and the heart rate rise painlessly. An increase in body temperature of two degrees Fahrenheit can affect mental functioning. A five degree Fahrenheit increase can result in serious illness or death. During hot weather, heat illness may be an underlying cause of other types of injuries, such as heart attacks, falls and equipment accidents.



The most serious heat-related illness is heat stroke. The symptoms are confusion, irrational behavior, convulsions, coma, and death. While over 20% of heat stroke victims die regardless of health or age, children seem to be more susceptible to heat strain than adults. In some cases, the side effects of heat stroke can be varying degrees of brain and kidney damage.

SYMPTOMS OF HEAT EXHAUSTION

- Headache, dizziness, or fainting
- Weakness and wet skin
- Irritability or confusion
- Thirst, nausea, or vomiting

SYMPTOMS OF HEAT STROKE

- May be confused, unable to think clearly, pass out, collapse, or have seizures (fits)
- May stop sweating

Hanover Testing Labs



TO PREVENT HEAT ILLNESS

- Establish a complete heat illness prevention program.
- Provide training about the hazards leading to heat stress and how to prevent them.
- Provide cool water to workers close to the work area. At least one pint of water per hour.
- Modify work schedules and arrange frequent rest periods with water breaks in shaded or air-conditioned areas.
- Gradually increase workloads and allow more frequent breaks for workers new to the heat or those that have been away from work to adapt to working in the heat (acclimatization).
- Have a responsible person to monitor conditions and protect workers at risk of heat stress.
- Consider protective clothing that provides cooling.

HOW TO PROTECT WORKERS

- Know signs/symptoms of heat illnesses; monitor yourself; use a buddy system.
- Block out direct sun and other heat sources.
- Drink plenty of fluids. Drink often and BEFORE you are thirsty. Drink water every 15 minutes.
- Avoid beverages containing alcohol or caffeine.
- Wear lightweight, light colored, loose-fitting clothes.

WHAT TO DO WHEN A WORKER IS ILL FROM THE HEAT

- Call a supervisor for help. If the supervisor is not available, call 911.
- Have someone stay with the worker until help arrives.
- Move the worker to a cooler/shaded area.
- Remove outer clothing.
- Fan and mist the worker with water; apply ice (ice bags or ice towels).
- Provide cool drinking water, if able to drink.

IF THE WORKER IS NOT ALERT or seems confused, this may be a heat stroke. CALL 911 IMMEDIATELY and apply ice as soon as possible.

The infographic is split into two vertical panels: an orange panel on the left for Heat Exhaustion and a red panel on the right for Heat Stroke. In the center, a white silhouette of a person is surrounded by safety instructions. The instructions are: STAY SAFE, DRINK WATER, TAKE A BREAK, AVOID PEAK TEMPS, WORK IN TEAMS, and WEAR SUNSCREEN. The Heat Exhaustion panel lists symptoms: Faint Or Dizzy (with a dizziness icon), Excessive Sweating (with a sweat drop icon), Cool, Pale, Clammy Palms (with a clammy palm icon), Nausea or Vomiting (with a stomach icon), Rapid, Weak Pulse (with a heart icon), and Muscle Cramps (with a cramp icon). The Heat Stroke panel lists symptoms: Throbbing Headache (with a lightning bolt icon), Sweating Stops (with a 'no' symbol over a sweat drop icon), Temperature Over 103 deg. (with a thermometer icon), Nausea or Vomiting (with a stomach icon), Rapid, Strong Pulse (with a heart icon), and Loss of Consciousness (with a person lying down icon). Treatment options for Heat Exhaustion include: Get to a cooler, air conditioned area, Drink water if fully conscious, take a cool shower, and use a cool Compress. Treatment for Heat Stroke is: CALL 9-1-1 Immediately, Reduce Temperature Until Emergency Services Arrive.

HEAT EXHAUSTION

Faint Or Dizzy

Excessive Sweating

Cool, Pale, Clammy Palms

Nausea or Vomiting

Rapid, Weak Pulse

Muscle Cramps

HEAT STROKE

Throbbing Headache

Sweating Stops

Temperature Over 103 deg.

Nausea or Vomiting

Rapid, Strong Pulse

Loss of Consciousness

STAY SAFE

DRINK WATER

TAKE A BREAK

AVOID PEAK TEMPS

WORK IN TEAMS

WEAR SUNSCREEN

TREATMENT OPTIONS

Get to a cooler, air conditioned area

Drink water if fully conscious

take a cool shower

use a cool Compress

CALL 9-1-1 Immediately

Reduce Temperature Until

Emergency Services Arrive

Resources and References:

OSHA-NIOSH Heat Safety Tool App:

The Heat Safety Tool is a useful resource for planning outdoor work activities based on how hot it feels throughout the day. Featuring real-time heat index and hourly forecasts, specific to your location, as well as occupational safety and health recommendations from OSHA and NIOSH. <https://www.cdc.gov/niosh/topics/heatstress/heatapp.html>

OSHA Heat Safety Webpage

<https://www.osha.gov/SLTC/heatstress/>

Date: ____ / ____ / ____

**“Heat Stress Safety”
Sign In Sheet:**

Name:

Signature:
