Heat Stress

Information for Workers
What is Heat Stress

- Heat stress causes increased sweating, depleting the body's fluid and causing heat intolerance.
- Heat rashes – rash from wet skin from sweat
- Heat cramps – cramping from heat
- Heat exhaustion – body produces more heat than it can release through sweating. Dehydration from excessive sweating and not replacing fluids
- Heatstroke – body is unable to cool itself and core temperature rises to a critical level.
Signs and Symptoms of Heat Stress

• Headache, dizziness, or fainting
• Heavy sweating
• Rapid heartbeat
• Cool, pale, clammy skin
• Muscle and stomach cramps
• Dark colored urine
• Irritability or confusion
• Thirst, nausea, or vomiting
• Increase in body temperature/fever
Risk Factors for Heat Stress

- Dehydration
- Age – Elderly and young children at the highest risk
- Illness
- Physical condition and obesity
- Heart disease
- Alcohol, drug, and prescription medication use
- Pregnancy
How to Prevent Heat Stress

• **Hydration** – Drink 16 ounces of water 30 minutes before working in hot temperatures and 8 ounces of water every 20 minutes.

• **Avoid alcohol and caffeine.**

• **Work during cooler times of the day** – Start and end shifts earlier if working outside when possible.

• **Wear lightweight, loose fitting, and light colored clothing.** Moisture-wicking fabrics help the skin stay cool through evaporation. Avoid cotton and fabrics that soak up sweat.
How to Prevent Heat Stress

• **Choose the right hat** – your head releases considerable amounts of heat. A lightweight, light-colored, breathable, wide-brimmed hat will allow your head to release heat and help protect you from the sun. A visor can provide sun protection while allowing your head to cool.

• **Acclimate to the heat slowly** – allow your body to adjust to hot temperatures over the course of a few days.

• **Take breaks in a cool area.**

• **Wear your PPE no matter what the temperature.** It can’t protect you if it’s not on you. If it’s uncomfortable, take frequent breaks.
Salt Tablets

Should I take salt tablets?

• Salt tablets are not recommended and should only be taken on the direct advice of a physician.

• A sufficient amount of salt is usually absorbed from food eaten to provide replacement of all salt lost in sweating.

• In cases of extreme sweating, extra salt may be added to food during cooking or eating.
How to Respond to Heat Exhaustion

- Get the person out of the sun into an air-conditioned location or cool area.
- Have the person lay down and with their legs and feet slightly elevated.
- Remove and loosen clothing.
- Have the person drink cool water.
- Fan the person to help them cool off.
- Wet the body with cool water.
- Place a damp, cool towel around the back of the neck and on their forehead.
How to Respond to Heat Exhaustion

- Monitor the person carefully. Heat exhaustion can quickly become heatstroke.
- Call 911 or emergency medical help if the person's condition worsens, especially if fainting, confusion or seizures occur, or if fever of 104° F or greater occurs with other symptoms.
Heatstroke

- Heat Stroke is a medical emergency.
- Occurs when body temperature rises to 104°F (40°C).
- Heatstroke untreated can cause damage to the brain, heart, kidneys, and muscles.
- Untreated or delayed treatment of heatstroke can lead to death.
- Do not delay treatment for heat exhaustion.
- Until medical aid is available, cool the person down as quickly as possible.
  - Soak the person's clothing in cold water.
  - Give cool fluids (if the person is conscious).
  - Increase air movement by fanning.
Heatstroke

Signs & Symptoms:
- Chills
- Restlessness
- Irritability
- Euphoria
- Red face
- Disorientation
- Hot & dry skin
- Erratic behavior
- Collapse
- Shivering
- Unconsciousness
- Convulsions
- Body temperature ≥ 104°F

Call 911 or emergency medical help immediately if you suspect a person is experiencing heatstroke.
Sources

- **Centers for Disease Control and Prevention**

- **Occupational Safety and Health Administration**

- **National Institute for Occupational Safety and Health**

- **Mayo Foundation for Medical Education and Research**
  http://www.mayoclinic.com/health/first-aid-heat-exhaustion/FA00020

- **University of Maryland Medical Center**
  http://www.umm.edu/altmed/articles/heat-exhaustion-000075.htm
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