

11 - Working In The Heat: Safety Training

EH&S – MGA

Goals: This safety session should teach you to:

- A. Recognize the hazards and symptoms of working in heat.
- B. Reduce risks of working in hot temperatures and respond to danger signals.

OSHA Regulations: General Duty Clause Sec. 5(b), 1910.132

1. Working in Hot Conditions, Indoors or Outdoors, Creates Health Risks

- A. Heat cramps occur when the body loses too much salt from heavy exertion in heat.
- B. Heat exhaustion occurs when the body can't replace fluids and/or salt lost in sweating.
 - 1. Perspiration in heat is important, because it cools the body as it evaporates.
- C. Heat stroke occurs when the body no longer sweats and holds so much heat that body temperature reaches dangerous levels.
- D. Heat stroke is a medical emergency and can lead to delirium, convulsions, unconsciousness, or even death.
- E. Factors that can increase the risk of these types of heat stress include:
 - 1. Physical exertion
 - 2. Being unaccustomed to working in heat
 - 3. Wearing protective clothing that traps body heat
 - 4. Age
 - a. Older people may have less body water and lower sweat gland efficiency.
- F. Being overweight, which makes you use more energy to perform tasks
- G. Medications that can interfere with normal body reactions to heat

2. Take Precautions to Avoid Heat Stress When Working in Hot Conditions

- A. For work outdoors in the heat or indoors in laundries, foundries, or other hot areas:
 - 1. Gradually adjust to heat when new to a job or after a two-week or longer absence.
 - a. Take about five days to gradually build up time spent working in heat.
 - 2. Use general ventilation, cooling fans, and evaporative cooling whenever possible.
 - 3. Shield furnaces and other heat producing equipment.
 - 4. Check for and eliminate any steam leaks.
 - 5. Plan the most strenuous work for the coolest parts of the day.
 - 6. Wear loose, lightweight, light colored clothes.
 - a. Wear a hat and use sunscreen to work outdoors.
 - 7. Drink water steadily before and during work in the heat.
 - a. Drink about 16 ounces before starting, and 5 to 7 ounces every 15 or 20 minutes during hot work.
 - 8. Eat well-balanced meals, avoiding heavy or hot food, alcohol and caffeine.
 - 9. Take salt tablets to replace what's lost in perspiration, if approved by a doctor.
 - 10. Work at a steady pace, minimizing overexertion.
 - 11. Take regular breaks in a cool, well-ventilated area.
 - 12. Know your own limits and ability to work safely in heat.

13. Take fast action for symptoms of heat cramps, exhaustion, or heat stroke.

3. Be Alert to Heat Stress Symptoms

- A. Heat exhaustion symptoms include:
 - 1. Weakness, dizziness, sometimes nausea
 - 2. Pale or flushed appearance
 - 3. Sweating, moist and clammy skin
- B. Heat stroke symptoms include:
 - 1. Dry, hot reddish skin, and lack of sweating
 - 2. High body temperature and strong, rapid pulse
 - 3. Chills
 - 4. Confusion

4. Respond Quickly and Correctly to Heat Stress Symptoms

- A. Heat stroke is a medical emergency that can be fatal. Act immediately.
 - 1. Move a victim immediately to a cool place and call for medical help.
 - 2. Cool the person down as much as possible while waiting for medical help.
 - a. Use a hose or soak clothes with water and fan the body.
 - b. Monitor breathing. Don't give fluids if the person is unconscious.
- B. Heat exhaustion requires fast response to prevent worse problems.
 - 1. Move to a cool place immediately.
 - 2. Loosen clothing and place cool wet compresses on the skin.
 - 3. Drink water or an electrolyte beverage slowly.
 - 4. Elevate feet 8 to 12 inches.
- C. If you experience heat cramps:
 - 1. Drink water.

Summation: Pay Attention to Your Body When You Work in the Heat

Work at a slow, steady pace and drink plenty of water. Remember that heat stroke can be deadly and that symptoms demand immediate action.