Heat Exhaustion/Heat Stroke Fact Sheet

Symptoms of heat exhaustion generally develop after prolonged periods of outdoor activity in high heat. If left untreated, heat exhaustion may turn into a more serious condition called heat stroke, which can be life threatening. Heat stroke is defined as having a body temperature of 104°F or higher, not related to fever. At this point, your body cannot regulate temperature, as sweating has stopped.

**SYMPTOMS**

**Heat Exhaustion**
- Cool, moist skin with goose bumps when in the heat
- Heavy sweating
- Dizziness
- Fatigue
- Weak, rapid pulse
- Low blood pressure upon standing
- Muscle cramps
- Nausea
- Headache

**Heat Stroke**
- High body temperature
- Nausea
- Sweating has stopped
- Rapid pulse
- Rapid breathing
- Flushed skin
- Loss of consciousness
- Confusion
- Skin hot, dry to the touch
- Shock

**PREVENTION**

- Look up the heat index prior to planned work. [https://www.weather.gov/safety/heat-index](https://www.weather.gov/safety/heat-index)
  - A heat index higher than 91°F monitor for heat exhaustion and plan for regular rest/water breaks.
  - Consider rescheduling work when the heat index is above 103°F.
  - Do not perform work if the heat index is over 115°F.
- Schedule work for cooler parts of the day.
- Use a buddy system to monitor for symptoms throughout the work.
- To prevent heat exhaustion, drink plenty of fluids. Drink water at least every 15 minutes, even if you are not thirsty.
- Wear loose fitting, breathable clothing.
- Take frequent rest breaks preferably in a cool building, but at least in a fully shaded area. More frequent, shorter periods of exposure to heat are better than fewer, longer exposures. Shorten work periods and increase rest periods:
  - As temperature rises
  - As humidity increases
  - When there is no air movement
  - When protective clothing or gear is worn
  - For more strenuous work
- Slowly acclimatize personnel to working in hot weather by starting with less strenuous tasks and more frequent breaks.
- Consider that some health conditions can put workers at greater risk of heat-related illness. These include diabetes, kidney and heart problems, pregnancy, and being overweight. Encourage personnel to consult with physician about how their health may be affected by expected working conditions.
**FIRST AID TREATMENT**
- Remove the person from the heat source, preferably in a cool building, but at least in a fully shaded area.
- Remove excess clothing.
- Cool the patient with whatever means are available.
- Immerse the patient in a cool tub of water or a cool shower, sponge with cool water, or place cold, wet towels on the person's head, neck, armpits and groin.
- Do not cover their entire body or torso with wet towels/clothing, as this may prevent efficient heat loss.
- If they are able to drink, give them cool water.
- Seek emergency medical attention if you suspect someone is experiencing heat stroke, as heat stroke can cause damage to the liver, kidneys, and affect blood clotting.
- Continue cooling the patient until help arrives.

**REFERENCES AND ADDITIONAL RESOURCES**
OSHA [Heat Illness](https://www.osha.gov/heatillness/
OSHA [Occupational Exposure to Heat](https://www.osha.gov/heatillness/)