

HEAT-RELATED ILLNESS/HEAT EXHAUSTION & HEAT STROKE

A healthy body temperature is maintained by the nervous system. As the body temperature increases, the body tries to maintain its normal temperature by transferring heat through sweating and blood flow to the skin. A heat related illness occurs when the body can no longer transfer enough heat to keep it cool. Hyperthermia can develop rapidly. Hot temperatures can build up quickly in small spaces where there is poor ventilation. An imbalance of nutrients/electrolytes in the body as a result of exposure to heat over a period of time.

Heat Exhaustion: Generally develops when a person is working or exercising in hot weather and does not drink enough fluids to replace those lost.

Heat Stroke: (sun stroke) Occurs when the body fails to regulate its own temperature and the body temperature continues to rise, often to 105°F (40.6°C) or higher. Heatstroke is a medical emergency.

Symptoms:

Heat Exhaustion:

- Fatigue or weakness
- Headache
- Dizziness or fainting
- Nausea or vomiting
- Pale, cool, and moist skin
- Heavy sweating
- Fast, weak pulse
- Muscle cramps

Heatstroke:

- Unconsciousness for longer than a few seconds
- Confusion, severe restlessness, or anxiety
- Convulsion (seizure)
- High body temperature (103° or higher)
- Moderate to severe difficulty breathing
- Rapid heart rate, strong pulse
- The absence of sweating; the body may have stopped sweating
- Skin may be red, hot and dry or damp

History:

- Onset of symptoms
- Activities performed prior to onset of symptoms
- Length of time spent in high temperatures
- Presence of fatigue, weakness, nausea, vomiting, dizziness, headache, confusion and/or fainting, seizures or unconsciousness
- Presence of skeletal muscle spasms
- Medication
- Fluid intake, include the type and quantity
- Previous episode of heat exhaustion or heat stroke

Assessment

- Obtain vital signs:
 - Temperature (greater than 103°F is an emergency).
 - Airway, Breathing, Circulation

- Assess for:
 - Level of consciousness or confusion.
 - Signs of dehydration (skin turgor and mucus membrane dryness).
 - Skin temperature , is it pale or red, dry or wet, hot or cool to the touch
 - Are they sweating or not sweating.
 - Are they overdressed for the environmental temperature
 - Nausea or vomiting

Treatment:

- Remove client from the hot environment to a cool area out of direct sunlight
- Place person on their side if possible to expose as much skin surface to the air as possible.
- Remove unnecessary clothing, loosen constricting clothing.
- Reduce body temperature– wrap client in cool, wet sheets or apply cold packs to the groin, neck and armpits.
- Fan the client to help increase evaporation.
- Frequently monitor body temperature.
- If heat stroke is suspected, do not give the person anything to drink.
- If heat exhaustion, offer the person sips of water. Ensure the person is sitting up enough so they do not choke if giving fluids.

Call EMS

- All cases of heat stroke or heat exhaustion.

Reference

Centers for Disease Control and Prevention (CDC) (September 1, 2017), Warning Signs and Symptoms of Heat-Related Illness. Retrieved electronically October 23, 2017 from <https://www.cdc.gov/disasters/extremeheat/warning.html>