

Heat Exposure

Normal body temp is approx 37°C

Heat Exhaustion: occurs when the body cannot lose heat fast enough. Profuse sweating occurs in an effort to lower body temperature but this leads to fluid loss and decreased blood volume (mild shock). If not treated quickly, it can lead to heat-stroke.

Heat Stroke: occurs when the body's normal cooling system fails and the body temperature rises to the point where internal organs (eg brain, heart, kidneys) are damaged: Blood vessels near the skin's surface dilate in an attempt to release heat, but the body is so seriously dehydrated that sweating stops (red, hot, dry skin). Consequently, the body temperature rises rapidly because the body can no longer cool itself. This is a life-threatening condition.

Heat Exhaustion

(Mild – Moderate Hyperthermia)

- Body Temp 37°C – 40°C

SIGNS & SYMPTOMS

- Sweating
- Pale, cold, clammy skin
- Headache
- Muscle cramps
- Thirst
- Fainting
- Nausea
- Rapid pulse

(Onset of mild shock due to fluid loss (pg 14))

Progresses to

Heat Stroke

(Severe hyperthermia)

- Body Temp > 40°C

SIGNS & SYMPTOMS

- NO Sweating
- Red, hot, dry skin
- Nausea and vomiting
- Visual disturbances
- Irritability/ confusion
- Staggering/ unsteady
- Seizures
- Unconscious

Profuse sweating may occur

FIRST AID

- Move casualty to cool, shaded, ventilated area.
- Lie flat with legs elevated.
- Loosen and remove excess clothing.
- Cool by: •fanning •spraying with water •applying wrapped ice packs to neck, groin and armpits •draping wet sheet over body and fanning.
- Give cool water to drink if fully conscious.
- Seek medical help or
- Call ☎ if in doubt

Heat radiates from the body, especially the head into the surrounding air

During breathing, cold air is inhaled and warm air is exhaled

Heat is lost through evaporation (sweat) on the skin

Heat is conducted from the warm body to a cold object

Heat is lost through convection ie warm air around the body is replaced with cold air - worse on windy days



Heat Exhaustion and Heat Stroke are usually caused by over-exertion in hot, humid conditions with poor fluid intake.



Body heat can be lost quickly in high, exposed areas