

Heat Exhaustion/heat stroke



Anybody can develop heat exhaustion or heat stroke during hot weather.

Certain situations can lead to heat illness more readily: long stretches of hot days, recent illness with diarrhea or vomiting, heavy/restrictive clothing, or working in a hot environment.

Heat Exhaustion

Heat exhaustion or heat stress is overheating of the body due to excessive loss of water.

Causes

Heat exhaustion is caused by prolonged exposure to hot temperatures, limited fluid and/or insufficient dietary salt intake.

Signs & Symptoms

- Muscle cramps
- Intense thirst
- Excessive sweating
- Dizziness, fatigue, faintness
- Headache
- Slow, weak, pulse
- Rapid, shallow breathing
- Possible nausea & vomiting

Heat Stroke

Heat stroke occurs when the body's cooling system breaks down. Sweat glands often stop working and the body overheats. When body temperature exceeds 105*, the brain and other organ tissues can begin to die. This is a medical emergency.

Causes

Ignoring heat exhaustion is a primary cause of heat stroke, but heat exhaustion symptoms are not always present before heat stroke sets in.

Signs & Symptoms

Although loss of the ability to sweat is the prominent symptom of heat stroke, physically active people may still sweat lightly. Look for these symptoms in addition to lack of sweat:

- Hot, dry, flushed skin
- High blood temperature
- Very rapid OR very slow heartbeat
- Confusion, disorientation
- Loss of consciousness
- Seizure

Treatment

While heat exhaustion is not fatal, heat stroke can be. Loss of the ability to sweat is the key indicator of heat stroke. Listed below are treatments for heat illnesses.

Heat Exhaustion

Move victim out of sun, to cooler location.

Loosen or remove clothing.

Apply ice packs to neck, groin, armpits.

Force fluids, 1 to 2 quarts.

Heat Stroke

Call 911 immediately.

Follow the same steps as heat exhaustion.

Cool victim by immersing in water or splashing with water and fanning to promote quick evaporation.

Prevent blood vessel constriction by massaging body.

Do NOT give salt tablets.

Do NOT use alcohol rubs to cool victim.

Prevention

Plan outdoor activities in early morning or late afternoon. If you feel lightheaded or dizzy, stop what you are doing and go indoors. Cool yourself with a fan or air conditioner.

Apply sunscreen – skin cannot sweat through sunburn.

Wear light colored, light weight, loose fitting clothes and hats that allow air flow.

Drink water often. Don't wait until thirsty to drink – your body may already be dehydrating.

Avoid foods and beverages that promote fluid loss, such as caffeine or alcohol.

Some medications slow sweat production or prevent the body from releasing heat. Check with your doctor to see if your medicines are affected by heat and what you can do to prevent problems.

Never leave anybody, especially children, unattended in a locked car during hot weather. Car temperatures rise rapidly and can be deadly in minutes.

Heat Index Guide

80* to 90* F – fatigue possible with prolonged exposure or physical activity.

90* to 105* F – heat cramps and heat exhaustion possible with prolonged exposure or physical activity.

105* to 130* F – heat cramps and heat exhaustion likely, heat stroke possible with prolonged exposure or physical activity.

130* F or higher – heat stroke likely with continued exposure.

Heat stroke prevention

A beautiful, sunny day can bring with it loads of fun and excitement or life threatening illness. Heat sickness is a fast acting, dangerous killer, Heat cramps, heat exhaustion and heat stroke can bring about an irreversible come and even, death.

Know the difference

It's important to note the difference between the three main heat related illnesses. While heat cramps can be uncomfortable, they are not life threatening. Heat stroke, on the other hand, needs immediate medical attention.

Heat cramps

Heat cramps are caused by muscle contractions in both the gastronomies or hamstring area (back of calves). Feeling most like a severe muscle pull, heat cramps are forceful and painful. Heat cramps are associated with lack of fluids, high temperatures and lack of physical conditioning. Heat cramps, while painful, are not life threatening. Ignoring heat cramps however, can bring about the progression of other, more serious heat related illnesses. Heat cramps can be treated with water, cool air and rest.

Heat Exhaustion

This condition is exactly what it sounds like: severe exhaustion caused by extreme body heat. Excessive heat and dehydration can cause the body to overreact, thus raising your body temperature to over 102-degrees. Symptoms of Heat Exhaustion include paleness, nausea, extreme fatigue, dizziness, lightheadedness, vomiting, fainting and cool, clammy skin. Heat Exhaustion is a serious illness and should be carefully monitored. Cool, shady environments, liquids, cool rags placed on various areas of the body and replacement of electrolytes (such as those found in sports drinks) are used to treat this condition. If body temperature remains elevated even after treatment, it's best to consult your doctor for further information and instruction.

Heat Stroke

Heat Stroke is a medical emergency, and the most severe form of heat related illness. Anyone exhibiting the signs and symptoms of Heat Stroke should be rushed to the nearest hospital or clinic. Unlike other forms of heat illness, Heat Stroke does not have to be caused by exercise or exertion. High temperature, lack of body fluids and overexposure to the elements can all bring about Heat Stroke. The very young and old are especially susceptible to the hazards of this heat related illness.

Symptoms

The first sign to look for in a victim of Heat Stroke is red, flushed skin. People who are suffering Heat Stroke, do not sweat, so it is critical that they receive emergency care immediately to relieve emergency care immediately to relieve their body of heat. Other signs of Heat Stroke include:

A body temperature of 106-degrees or higher

Seizures

Headache

Rapid Pulse

Unconsciousness

Prevention of Heat Stroke

It is possible to avoid suffering the ill effects of heat related disorders by taking a few simple precautions.

Hydration

The easiest way to avoid Heat Stroke and other heat disorders is to keep your body well hydrated. This means drinking plenty of water before, during and after exposure to the elements. Sports drinks are a good choice if you're exercising or working in hot conditions, but water works fine, too.

Ventilation

Staying in a place where there is plenty of airspace which will help allow your body to naturally cool itself. Sitting in a shaded, wide open area will help your body rid itself of heat through sweating. If you're indoors, always open windows, use a fan, central air or air conditioning during excessively hot days.

Clothing

What you wear can play a big factor in how your body will handle the heat. Light colored, loose fitting clothing will aid your body in breathing and cooling itself down naturally. Tight clothing restricts such a process and dark colors absorb the sun's light and heat. It's okay to wear a hat to shield yourself from the sun, but once you feel yourself getting warm, it's best to remove any items that are covering your head. Continuing to wear head garments will only keep more heat trapped inside of your body.

Limit Yourself

Watching how much activity you're participating in during hot days is also important. Don't overdue it. Heat Stroke can set in in less than an hour. If you feel yourself getting warm or lightheaded, it's best to take a time out and rest in the shade.

Heat related illnesses are preventable. Like many sicknesses, it's easier to take steps against Heat Stroke than it is to treat it. Most doctors recommend consuming eight or more glasses of water a day during normal weather conditions and twice that during high heat periods.

Heat Exposure/Heat Exhaustion

Overexposure to high temperature and humidity can quickly lead to heat exhaustion. It is imperative one be able to recognize the early signs and symptoms of overexposure. Early recognition can ward off serious consequences. Generally heat exhaustion is caused by loss of body fluids and important salts. If untreated, heat exhaustion can lead to heat stroke. Heat stroke is a medical emergency caused by the failure of the heat-regulation mechanism of the body, due to high heat and humidity.

	Symptoms	Mental Status	Core Temperature	Treatment
HEAT EXHAUSTION *Excessive water loss	-headache -nausea -fatigue -dizziness or -lightheadedness -actively sweating -skin cool & pale	-usually conscious -may faint	-over 102	-shady place or AC room -keep cool -increase fluids -cold wet towels -fans -may require IV fluids
HEAT STROKE *Failure of body's heat controlling mechanisms ***EMERGENCY!!!	-headache -flushed skin -dry skin -warm skin -rapid, bounding pulse	-incoherent speech -disoriented -confused -aggressive -possibly unconscious	-over 105	-Immediate action necessary -Shady place or AC room -Remove most of cloths -apply cool, wet towels -fan to increase air flow -transport to ER