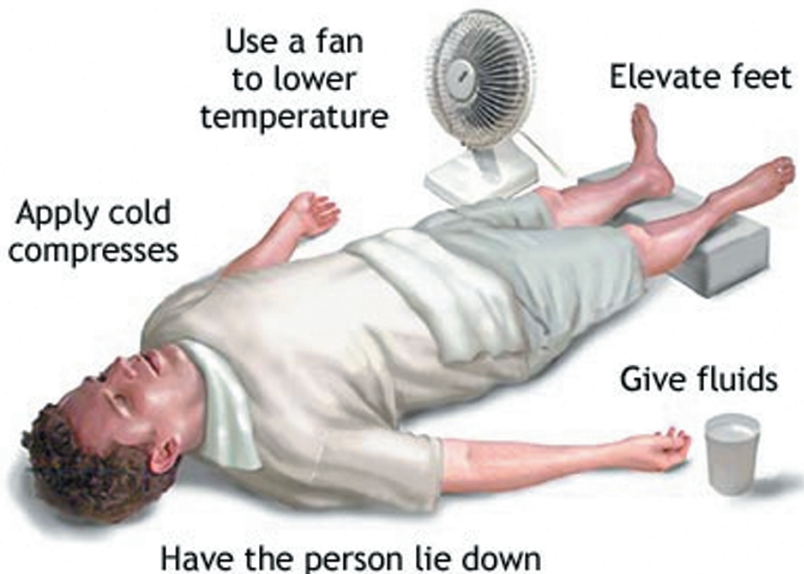


Heat Exhaustion and Heat Stroke

Is there a difference?



Heat emergencies are of three types: heat cramps (caused by loss of salt), heat exhaustion (caused by dehydration) and heat stroke (shock). Remove the victim from the heat and have him lie down. Apply cool compresses, elevate the feet, drink fluids and use a fan to blow cool air. Get medical help if needed.

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Heat exhaustion is an illness caused by too much heat. It is often brought on by overexertion or profuse sweating in a hot, humid, poorly ventilated environment. During prolonged heat waves, the very young and the very old are also often at risk, even if they are not active. Luckily, if heat exhaustion is recognized and treated promptly, the effects can easily be reversed.

Heat stroke is a serious condition caused by failure of the body's natural thermostat resulting in an inability to cool itself down by normal means. It usually occurs as a result of exposure to very hot surroundings. Heat stroke is often the result of heat exhaustion.

The onset can be sudden, resulting in unconsciousness in a matter of minutes. Medical assistance should be sought as soon as possible.

Heat stroke may come on suddenly, and usually follows a less-threatening condition commonly referred to as heat exhaustion

Common Causes

Heat exhaustion is typically caused when people who are not well adjusted to heat exercise in a hot, humid environment

- At high temperatures, the body cools itself largely through evaporation of sweat.
- When it is very humid, this mechanism does not work properly.
- The body loses a combination of fluids and salts (electrolytes).
- When this is accompanied by an inadequate replacement of fluids, disturbances in the circulation may result that are similar to a mild form of shock.

Our bodies produce a tremendous amount of internal heat and we normally cool ourselves by sweating and radiating heat through the skin. However, in certain circumstances, such

as extreme heat, high humidity or vigorous activity in the hot sun, this cooling system may begin to fail, allowing heat to build up to dangerous levels

Treatment

Home care is appropriate for mild forms of heat exhaustion. When someone is suffering from a mild heat exhaustion:

- Try to cool them down by removing them from direct sunlight into the shade.
- Lie them down and apply lukewarm (not cold) water with a sponge or similar.
- Encourage him/her to drink as much rehydration solution as they can take
- Loosen or remove clothing.
- Do not use an alcohol rub.
- Do not give any beverages containing alcohol or caffeine.
- Allow them to rest until they fully recover, monitoring closely for any signs of deterioration.
- More severely exhausted patients may need IV fluids, especially if vomiting keeps them from drinking enough.

Heat stroke is a medical emergency, and an ambulance should be called immediately. Do not attempt to treat a case of heat stroke at home, but you can help while waiting for medical assistance to arrive.

- The main priority is to cool the patient down as quickly as possible but never use ice or very cold water to avoid thermal shock which could kill them.
- Move the person to a cooler environment, or place him or her in a cool bath of water (as long as he or she is conscious and can be attended continuously).
- Alternatively, moisten the skin with lukewarm water and use a fan to blow cool air across the skin.
- Give cool beverages by mouth if the person will tolerate it

When to call for a doctor or emergency

As with all other medical problems, a doctor should be called if you are not sure what is wrong, if you do not know what to do for the problem, or if the person is not responding to what you are doing for them.



A person with suspected heat stroke should always go to the hospital (or call for an ambulance) at once

Call a doctor for heat exhaustion if the person is unable to keep fluids down or if their mental status begins to deteriorate. Symptoms of shortness of breath or chest or abdominal pain may indicate that the heat exhaustion is accompanied by more serious medical problems.

For heat exhaustion, a person should go to the hospital if any of the following are present:

- Loss of consciousness, confusion, or delirium
- Chest or abdominal pain
- Inability to drink fluids
- Continuous vomiting
- Temperature more than 104°F
- Temperature that is climbing despite attempts to cool the person
- Any person with other serious ongoing medical problems

Suspected heat stroke is a true, life-threatening medical emergency. Call for an ambulance

Heat Exhaustion symptoms	Heat Stroke symptoms
<ul style="list-style-type: none"> - Headache dizziness and nausea - Cramps in the limbs and/or abdomen - Profuse sweating with pale, clammy skin - Rapid, weak breathing and pulse - Dry tongue and thirst - Severe muscle fatigue - Loss of appetite 	<ul style="list-style-type: none"> - Headache, dizziness, confusion & restlessness - sluggishness or fatigue - Hot, flushed, dry skin due to failure of sweating mechanism - Full, bounding pulse - Body temperature above 40C - Rapid deterioration in the level of response - loss of consciousness - hallucinations
Both conditions are the result of hot weather or working in hot conditions. Heat stroke can be fatal and is often the result of heat exhaustion.	

and request information as to what to do until the ambulance arrives.

Preventing Heat-Related Illnesses

You can prevent heat-related illnesses. The important things are to:

- Stay well-hydrated
- Make sure that your body can get rid of extra heat
- Be sensible about exertion in hot, humid weather.

Avoid heat exhaustion by not engaging in strenuous activity in hot, humid environments.

People who are not used to the heat should be particularly careful. Intersperse periods of rest in a cool environment with plenty of available fluids to drink. Avoid strenuous activities during the hot part of the day.

Heat stroke often occurs in people who are unable to modify their environments: infants, the elderly and bed-ridden people. People who are taking many types of blood pressure, allergy, or depression medication may also be particularly at risk and should avoid hot environments.

It's important to be sensible about how much you exert yourself in hot weather. The hotter and more humid it is, the harder it will be for you to get rid of excess heat. The clothing you wear makes a difference, too: the less clothing you have on, and the lighter that clothing is, the easier you can cool off. Wide-brimmed hats keep the sun from warming the head and neck; vents on a hat will allow perspiration to cool the head.

Persons in hot weather need to drink plenty of liquids to replace fluids lost from sweating. Thirst is not a reliable sign that a person needs fluids. A better indicator is the color of urine. A dark yellow color indicates dehydration. Alcohol, tea, and coffee are all diuretics and will exacerbate, rather than prevent, dehydration. The best fluid to drink when you are sweating is water.

Citations:

- Hyperthermia from Wikipedia, the free encyclopedia
- Heat Cramps, Heat Exhaustion, and Heat Stroke by Vinay N. Reddy, M.D

