Heat Stress Disorders

Heat and humidity can be dangerous, and many people cleaning up after a hurricane are not used to working outdoors. People need more water when doing physical labor; however, water may be in short supply or not available. Air conditioning may not be available. Shade may be scarce because trees are down and roofs are damaged. People need to be aware of the risks of heat stroke.

Heat disorders generally are caused by the body's inability to shed excess heat. The body is cooled by losing heat through the skin and by perspiration. When heat gain exceeds the amount the body can remove, the body's inner temperature begins to rise, and heat-related illness may develop.

Heat disorders share one common feature: the individual has been overexposed to heat, or overexercised for his age and physical condition on a hot day. The severity of heat disorders tends to increase with age; heat cramps in a 17-year-old may be heat exhaustion in someone 40 and heat stroke in a person over 60.

Sunburn can significantly retard the skin's ability to shed excess heat. Elderly people, young children, invalids, people on certain medications or drugs, and people with weight and alcohol problems are particularly susceptible to heat reactions.

Heat Disorder Symptoms

- Sunburn—Redness and pain. In severe cases, swelling of skin, blisters, fever, headaches.
- Heat cramps—Painful spasms, usually muscles of legs, and possibly abdomen. Heavy sweating.
- Heat exhaustion—Heavy sweating, weakness, skin cold, pale and clammy. Pulse thready. Normal temperature possible. Fainting and vomiting.
- Heat stroke (or sunstroke)—High body temperature (106(F or higher). Hot dry skin. Rapid and strong pulse. Possible loss of consciousness.

Safety Tips

- Slow down. Schedule strenuous work for the coolest time of day. Individuals at risk should stay in the coolest available place, not necessarily indoors.
- Dress lightly. Lightweight, light-colored clothing reflects heat and sunlight and helps your body maintain normal temperatures. However, dress for safety if using tools or removing heavy debris; wear close-fitting clothing and shoes to prevent injury.
- Eat lightly. Foods like proteins increase metabolism and also increase body heat and water loss.
- Drink water. The body needs water to keep cool. People should drink plenty of fluids even if they aren't thirsty.

NOTE: Persons who have epilepsy, heart, kidney, or liver disease, are on fluid-restricted diets, or have a problem with fluid retention should consult a physician if possible before increasing fluid consumption.

- Do not drink alcoholic beverages.
- Do not take salt tablets without a doctor's permission. People on salt-restrictive diets should consult a physician before increasing their salt intake.
- Certain medications increase heat and ultraviolet sensitivity, so people should ask a doctor or pharmacist about current medications.
- Spend time in air-conditioned places. Spending some time each day in an air-conditioned environment will give some protection. This is especially important for the elderly.
- Don't get too much sun. Sunburn makes reducing body temperature more difficult.

First Aid

• Sunburn—Apply ointments for sunburns if blisters appear and do not break. If breaking occurs, apply dry sterile dressing. Serious cases should be seen by a physician.



- Heat Cramps—Firm pressure on cramping muscles or gentle massage will help relieve spasms. Give sips of water. If nausea occurs, discontinue water.
- Heat Exhaustion—Get the victim out of the sun. Lay down and loosen clothing. Apply cool, wet cloths. Fan or move victim to air-conditioned room, if possible. Give sips of water. If nausea occurs, discontinue water. If vomiting continues, seek immediate medical attention.
- Heat Stroke—Move the victim to a cooler environment. Reduce body temperature with a cold bath or sponging. Use extreme caution. Remove clothing, use fans and air conditioners. If body temperature rises again, repeat the process. Do not give fluids. Heat stroke is a severe medical emergency. Summon emergency medical assistance or get the victim to a hospital immediately. Delay can be fatal.

Adapted by Extension Specialists, North Carolina Cooperative Extension Service, from University of Florida/Institute of Food and Agricultural Sciences' Disaster Handbook