Symptoms of Heat Stroke

The hallmark symptom of heat stroke is a core body temperature above 104 degrees Fahrenheit. But fainting may be the first sign.

Other symptoms may include:

- Throbbing headache
- Dizziness and light-headedness
- Lack of sweating despite the heat
- Red, hot, and dry skin
- Muscle weakness or cramps
- Nausea and vomiting
- Rapid heartbeat, which may be either strong or weak
- Rapid, shallow breathing
- Behavioral changes such as confusion, disorientation, or staggering
- Seizures
- Unconsciousness

First Aid for Heat Stroke

If you suspect that someone has a heat stroke, immediately call 911 or transport the person to a hospital. Any delay seeking medical help can be fatal.

While waiting for the paramedics to arrive, initiate first aid. Move the person to an air-conditioned environment -- or at least a cool, shady area -- and remove any unnecessary clothing.

If possible, take the person's core body temperature and initiate first aid to cool it to 101 to 102 degrees Fahrenheit. (If no thermometers are available, don't hesitate to initiate first aid.)

Try these cooling strategies:

- Fan air over the patient while wetting his or her skin with water from a sponge or garden hose.
- Apply ice packs to the patient's armpits, groin, neck, and back. Because these areas are rich with blood vessels close to the skin, cooling them may reduce body temperature.

- Immerse the patient in a shower or tub of cool water.
- If the person is young and heathy and suffered heat stroke while exercising vigorously -- what's known as exertional heat stroke -- you can use an ice bath to help cool the body.

Do not use ice for older patients, young children, patients with chronic illness, or anyone whose heat stroke occurred without vigorous exercise. Doing so can be dangerous.

If emergency response is delayed, call the hospital emergency room for additional instructions.

Risk Factors for Heat Stroke

- Heat stroke is most likely to affect older people who live in apartments or homes lacking air conditioning or good airflow. Other high-risk groups include people of any age who don't drink enough water, have chronic diseases, or who drink excessive amounts of alcohol.

- Heat stroke is strongly related to the heat index, which is a measurement of how hot you feel when the effects of relative humidity and air temperature are combined. A relative humidity of 60% or more hampers sweat evaporation, which hinders your body's ability to cool itself.

- The risk of heat-related illness dramatically increases when the heat index climbs to 90 degrees or more. So it's important -- especially during heat waves -- to pay attention to the reported heat index, and also to remember that exposure to full sunshine can increase the reported heat index by 15 degrees.

Preventing Heat Stroke

When the heat index is high, it's best to stay in an air-conditioned environment. If you must go outdoors, you can prevent heat stroke by taking these steps:

- Wear lightweight, light-colored, loose-fitting clothing, and a wide-brimmed hat.
- Use a sunscreen with a sun protection factor (SPF) of 30 or more.
- Drink extra fluids. To prevent dehydration, it's generally recommended to drink at least eight glasses of water, fruit juice, or vegetable juice per day. Because heat-related illness also can result from salt depletion, it may be advisable to substitute an electrolyte-rich sports drink for water during periods of extreme heat and humidity.

- Take additional precautions when exercising or working outdoors. The general recommendation is to drink 24 ounces of fluid two hours before exercise, and consider adding another 8 ounces of water or sports drink right before exercise. During exercise, you should consume another 8 ounces of water every 20 minutes, even if you don't feel thirsty.
- Reschedule or cancel outdoor activity. If possible, shift your time outdoors to the coolest times of the day, either early morning or after sunset.

Other strategies for preventing heat stroke include:

- Monitoring the color of your urine. Darker urine is a sign of dehydration. Be sure to drink enough fluids to maintain very light-colored urine.
- Measuring your weight before and after physical activity. Monitoring lost water weight can help you determine how much fluid you need to drink