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Summer Weather Health Reminder: Heat Can Make You Sick

Unlike last year, this spring included a number of hot, humid days even before the official start of summer. The first week of summer continued the trend. Although many people look forward to the hot, sunny weather, the combination of rising temperatures and high dew points increase the likelihood of heat-related illness.

Temperatures above 90° F. can place an abnormal stress on the body, resulting in risks to health. This is especially true when hot weather continues for several days, or if it is combined with high humidity. Some of the factors influencing the likelihood of developing heat-related health problems include the movement of air, the amount of physical activity in which a person is engaged, the type of clothing that is being worn, the air temperature and the humidity. Each year, hundreds of people in the United States die from heat-related illnesses. According to the Centers for Disease Control, 3,442 people died from the heat during the period from 1999 - 2003. Previously, a heat wave in Chicago in July of 1995 killed more than 600 people and brought 3300 to the emergency room for treatment of heat-related disorders. In the summer of 2000, more than 130 people died in Texas alone as a result of a lengthy heat wave.

Heat stress is the term used for the strain placed on the heart and blood vessels during hot weather when the body is attempting to maintain its normal temperature. While anyone can become ill from the heat given the right set of circumstances, certain individuals are more at risk than others. They include those who are medically unfit, overweight, suffer from heart disease, and those who abuse drugs and alcohol. Also, workers in certain professions who have not become used to the heat gradually are at increased risk. Some medications increase the risk of heat-related illness, and age alone is a risk factor -- the elderly comprise nearly ½ of all heat-related deaths.

Humidity is an important consideration when assessing the risk of heat-related health problems. When the ambient air is saturated with moisture, little or no evaporation occurs. The body is unable to cool itself by sweating, since the sweat cannot be evaporated. As a result, the body stores the excess heat, raising the core temperature and increasing the heart rate. Heat exhaustion sets in and physical symptoms begin to manifest themselves, such as loss of concentration and irritability.

Other symptoms of heat exhaustion include fatigue, weakness, increased sweating, nausea, headache, and clammy skin. Body temperature may increase slightly or not at all. Fainting may occur. Because so much fluid is lost through increased sweating, dehydration frequently precedes or accompanies heat exhaustion. The symptoms of dehydration include dry lips and tongue, lack of energy, muscle cramps, and bright-colored or dark urine. To counteract the effects of heat exhaustion, the affected person should move to a cool area and lie flat with the head a little lower than the rest of the body. Fluids need to be replaced, preferably by drinking a beverage that contains electrolytes, such as many of the sport drinks currently available.

If heat exhaustion and dehydration are not treated, heat stroke may occur. This is a serious health problem that requires medical attention. The signs of heat stroke include lack of sweating, hot, dry skin, high body temperature (104 ° F. or higher), throbbing headache, dizziness, chest pain, exhaustion, rapid heartbeat, nausea, vomiting, and diarrhea, severe muscle cramps, rapid and shallow breathing, mental changes, confusion, delirium, loss of consciousness, convulsions, and even coma. Death will occur if heat stroke is not treated. While awaiting medical treatment, a person suffering from heat stroke should be moved to a cool location if possible, or the victim's clothing may be soaked and he or she should be fanned to aid the cooling process. Immersing the person in cool water or wrapping with wet sheets are additional measures that can be taken.

Other heat-related health problems include heat cramps and heat rash. Heat cramps are painful muscle spasms that usually result after prolonged exposure to heat and heavy sweating. Tired muscles are most susceptible. Drinking liquids, especially water and electrolyte drinks, may relieve cramps. Severe cramps may require medical attention and the administration of intravenous saline solution

Heat rash, while thought of as a nuisance, can become extensive or be complicated by infection. The rash usually occurs in hot, humid environments where sweat cannot easily evaporate from the skin. Once the rash develops, it can then reduce the body's ability to sweat, further reducing the body's ability to cool itself and tolerate heat. To treat a heat rash, the affected area should be cleansed and allowed to dry completely. A lotion such as calamine may be used to relieve the itch and irritation.

Since heat can cause so many health problems, knowing how to reduce the effects of excessive heat may prevent illness. The following precautions are recommended:

1. Drink plenty of water, even if you are not thirsty; avoid beverages containing alcohol and caffeine, which can lead to dehydration.
2. Wear loose fitting, light colored clothing that reflects the sun's radiant heat.
3. If you work or play in the sun, take a break in the shade every 30 minutes.
4. Avoid hot, heavy meals. Try to complete any necessary cooking during the coolest times of day.
5. Use air-conditioning whenever possible. If you do not have air-conditioning at home, go someplace that is air-conditioned for a few hours. (Malls, restaurants, movie theaters, and public libraries can provide welcome respites from the heat.)
6. Use electric fans; circulating indoor air aids in the evaporation of heat from the skin's surface. Take cool baths and showers. The body cools down 25 times faster in water than in air.
7. Reduce physical activity, especially during the hottest times of the day (usually between 10 a.m. to 4 p.m).
8. When outdoors, wear wide-brimmed hats, sunglasses that provide protection for 99 to 100 % of UV rays, and sun block with an SPF rating of at least 30 that protects against both UVA and UVB rays. Stay in the shade as much as possible and keep babies out of the sun.
9. If you live alone, are elderly, or have chronic medical conditions, ask a friend or relative to check on you regularly. A phone call each day can serve to alert someone if you are not well.
10. Never leave children alone in cars

Learning to identify types of heat stresses and how to prevent and treat heat-related illnesses could save your life or the life of another person. For further information about this or other health related topics, call the Central Connecticut Health District at 721-2822 or visit www.ccthd.org.