

AgePage

Hyperthermia: Too Hot for Your Health

Irene is retired, she loves to work in her garden. Because she has always spent hours outside, she thinks the heat and humidity of midwestern summers don't bother her. Then last year an unusual heat wave hit her area. Every day the temperature was over 100° F, and the humidity was at least 90%. Five days into the heat wave, her daughter Kim came over because Irene sounded confused on the phone. Kim found her mom passed out on the kitchen floor. Irene's one large fan wasn't enough to fight the effect of the heat and humidity on her body. The ambulance came quickly, but Irene almost died. She had heat stroke, the most serious form of hyperthermia.



Almost every summer there is a deadly heat wave in some part of the country. Too much heat is not safe for anyone. It is even riskier if you are older or if you have health problems. It is important to get relief from the heat quickly. If not, you might begin to feel confused or faint. Your heart could become stressed, and maybe stop beating.

Your body is always working to keep a balance between how much heat it makes and how much it loses. Your brain is the thermostat. It sends and receives signals to and from parts of your body that affect temperature, such as the spinal cord, muscles, blood vessels, skin, and glands that make substances known as hormones. Too much heat causes sweating. When the sweat dries

from your skin, the surface of your body cools and your temperature goes down.

Being hot for too long can cause many illnesses, all grouped under the name *hyperthermia* (hy-per-ther-mee-uh):

- ◆ **Heat cramps** are the painful tightening of muscles in your

stomach area, arms, or legs. Cramps can result from hard work or exercise. While your body temperature and pulse usually stay normal during heat cramps, your skin may feel moist and cool. Take these cramps as a sign that you are too hot—find a way to cool your body down. Be sure to drink plenty of fluids, but not those containing alcohol or caffeine.

- ◆ **Heat edema** is a swelling in your ankles and feet when you get hot. Putting your legs up should help. If that doesn't work fairly quickly, check with your doctor.
- ◆ **Heat syncope** is a sudden dizziness that may come on when you are active in the heat. If you take a form of heart medication known as a beta blocker or are not used to hot weather, you are even more likely to feel faint when in the heat. Putting your legs up and resting in a cool place should make the dizzy feeling go away.
- ◆ **Heat exhaustion** is a warning that your body can no longer

keep itself cool. You might feel thirsty, dizzy, weak, uncoordinated, nauseated, and sweat a lot. Your body temperature stays normal, and skin feels cold and clammy. Your pulse can be normal or raised. Resting in a cool place, drinking plenty of fluids, and getting medical care should help you feel better soon. If not, this condition can progress to heat stroke.

- ◆ **Heat stroke** is an emergency—it can be **life threatening!**

The Signs of Heat Stroke

- ◆ Fainting, possibly the first sign,
- ◆ Body temperature over 104° F,
- ◆ A change in behavior—confusion, being grouchy, acting strangely, or staggering,
- ◆ Dry flushed skin and a strong rapid pulse or a slow weak pulse,
- ◆ Not sweating, despite the heat, acting delirious, or being in a coma.

You need to get medical help right away. Getting to a cool place is very important, but so is treatment by a doctor. Many people die of heat stroke each year. Older people living in homes or apartments without air conditioning or good airflow are at most risk. So are people who don't drink enough water or those with chronic diseases or alcoholism.

Who Is at Risk?

Hundreds of people die from hyperthermia each year during very hot weather. Most are over 50 years old. The temperature outside or inside does not have to hit 100° F for you to be at risk for a heat-related illness. Health problems that put you at risk include:

- ◆ Heart or blood vessel problems, poorly working sweat glands, or changes in your skin caused by normal aging.
- ◆ Heart, lung, or kidney disease, as well as any illness that makes you feel weak all over or causes a fever.

- ◆ High blood pressure or other conditions that make it necessary for you to change some of the foods you eat. For example, if you are supposed to avoid salt in your food, your risk of heat-related illness may be higher. Check with your doctor.
- ◆ Conditions treated by drugs such as diuretics, sedatives, tranquilizers, and some heart and blood pressure medicines. These may make it harder for your body to cool itself by perspiring.
- ◆ Taking several different drugs. Keep taking all your prescriptions, but ask your doctor what to do if the drugs you are taking make you more likely to become overheated.
- ◆ Being quite a bit overweight or underweight.
- ◆ Drinking alcoholic beverages.



How Can I Lower My Risk?

Things you can do to lower your risk of heat-related illness:

- ◆ Drink plenty of liquids—water or fruit and vegetable juices. Every day you should drink at least eight glasses to keep your body working properly. Heat tends to make you lose fluids so it is very important to drink at least that much, if not more, when it is hot. Avoid drinks containing caffeine or alcohol. They make you lose more fluids. If your doctor has told you to limit your liquids, ask what you should do when it is very hot.
- ◆ If you live in a home or apartment without fans or air conditioning, be sure to follow these steps to lower your chance of heat problems:
 - open windows at night;
 - create cross-ventilation by opening windows on two sides of the building;
 - cover windows when they are in direct sunlight;
 - keep curtains, shades or blinds drawn during the hottest part of the day;
 - try to spend at least 2 hours a day (if possible during the hottest part of the day) someplace air-conditioned—for example, the shopping mall, the movies, the library, a senior center, or a friend’s house.
- ◆ Check with your local area agency on aging to see if there is a program that provides window air conditioners to seniors who qualify.
- ◆ If you think you can’t afford to run your air conditioner in the summer, contact your local area agency on aging. Or, ask at your local senior center. They may know if there are any programs in your community to aid people who need help paying their cooling bills. The Low Income Home Energy Assistance Program (LIHEAP) is one possible source.

- ◆ Ask a friend or relative to drive you to a cool place on very hot days if you don't have

a car or no longer drive.

Many towns or counties, area agencies, religious groups, and senior citizen centers provide such services.

If necessary, take a taxi.

Don't stand outside waiting for a bus.

- ◆ Pay attention to the weather reports. You are more at risk as the temperature or humidity rise or when there is an air pollution alert in effect.
- ◆ Dress for the weather. Some people find natural fabrics such as cotton to be cooler than synthetic fibers. Light-colored clothes feel cooler than dark colors. If you are unsure about what to wear, ask a friend or family member to help you select clothing that will help you stay cool.

- ◆ Don't try to exercise or do a lot of activities when it is hot.
- ◆ Avoid crowded places when it's hot outside. Plan trips during non-rush hour times.

What Should I Remember?

Headache, confusion, dizziness, or nausea when you're in a hot place or during hot weather could be a sign of a heat-related illness.

Go to the doctor or an emergency room to find out if you need treatment.

To keep heat-related illnesses from becoming a dangerous heat stroke, remember to:

- ◆ Get out of the sun and into a cool place—air conditioning is best.
- ◆ Offer fluids, but avoid alcohol and caffeine. Water and fruit and vegetable juices are best.
- ◆ Shower or bathe, or at least sponge off with cool water.
- ◆ Lie down and rest, if possible in a cool place.
- ◆ Visit your doctor or an emergency room if you don't cool down quickly.

For More Information

To find your local area agency on aging look in the telephone book or contact:

National Association of Area Agencies on Aging

1112 Sixteenth Street, NW
Suite 100
Washington, DC 20036
202-296-8130
www.nAa.org
Eldercare Locator: 1-800-677-1116

Low-Income Home Energy Assistance Program (LIHEAP)

National Energy Assistance Referral Hotline (NEAR)
1-866-674-6327 (toll-free)
www.ncat.org

For more information on health and aging, contact:

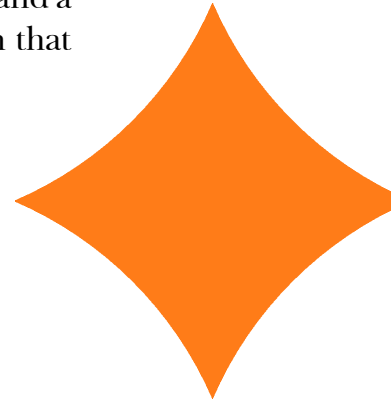
National Institute on Aging Information Center

P.O. Box 8057
Gaithersburg, MD 20898-8057
1-800-222-2225 (toll-free)
1-800-222-4225 (TTY toll-free)

To order publications (in English or Spanish) or sign up for regular email alerts, visit: *www.niapublications.org*.

The National Institute on Aging website is *www.nia.nih.gov*.

Visit NIHSeniorHealth.gov (*www.nihseniorhealth.gov*), a senior-friendly website from the National Institute on Aging and the National Library of Medicine. This simple-to-use website features popular health topics for older adults. It has large type and a 'talking' function that reads the text out loud.



National Institute on Aging

U.S. Department of Health and Human Services
National Institutes of Health

July 2001
Reprinted August 2005

