National Institute on Aging

AgePage

Hypothermia: A Cold Weather Hazard

Tony is a retired mailman. He has lived in New England his whole life and has seen some harsh winters. None, however, was as cold or snowy as one winter a few years ago. First, the temperature dipped to below zero and a snowstorm left 2 feet of snow. Then an ice storm caused lots of broken power lines. That meant Tony had no heat in his house, but he also couldn't leave. The temperature inside dropped to 60° F quite quickly. When his neighbor rang the doorbell to check on him the next day, Tony was confused, and his speech was slurred. He was taken to the emergency room. A doctor examined Tony and warmed him up. When he left the hospital Tony went to his brother's house until the heat came back on. Turns out he'd had accidental hypothermia.

Almost everyone knows about winter dangers such as broken bones from falls on ice or breathing problems caused by cold air. But, cold weather is also very risky for older people. The winter chill can lower the temperature inside your body. That can be deadly if not treated quickly. This drop in body temperature, often caused by staying in a cool place for too long is called *hypothermia* (hi-po-ther-mee-uh).

A body temperature below 96° F may seem like just a couple of degrees below the body's normal temperature of 98.6° F. But, it can be dangerous. It may cause an irregular heartbeat leading to heart problems and death.

What To Look For

When you think about being cold, you probably think of shivering. That is one thing the body does to stay warm when it gets cold. Muscles shiver in response to messages sent by the nerves. Shivering increases muscle cell activity and that, in turn, makes heat. But, shivering alone does not mean you have hypothermia.

So, how can you tell if someone has hypothermia? It can be tricky because some older people may not want to complain. They may not even be aware of how cold it is. You should look for the *"umbles"—stumbles, mumbles, fumbles,* and *grumbles*—these show that the cold is affecting how well a person's muscles and nerves work. Watch for:

- Confusion or sleepiness
- Slowed, slurred speech, or shallow breathing
- Weak pulse or low blood pressure
- A change in the way a person behaves or looks
- A lot of shivering; stiffness in the arms or legs
- Chilly rooms or other signs that a person has been in a cold place
- Poor control over body movements or slow reactions

What Should I Do?

If you think someone could have hypothermia, take his or her temperature with a thermometer. Make sure you shake the thermometer so it starts below its lowest point. If the temperature doesn't rise above 96° F, call for emergency help. In many areas that means calling 911.

The only way to tell for sure that someone has hypothermia is to use a special thermometer that can read very low body temperatures. Most hospitals have such thermometers. The person **must** be seen by a doctor. If possible, the doctor should know about hypothermia and work in a well-equipped hospital emergency room. There, the doctors will warm the person's body from inside out. For example, they may give the person warm fluids directly into a vein using an I.V. Whether the person gets better depends on how long he or she was exposed to the cold and his or her general health.

While you are waiting for help to arrive, keep the person warm and dry. Move him or her to a warmer place, if possible. Wrap the person in blankets, towels, coats—whatever is handy. Even your own body warmth will help. Lie close, but be gentle. You may be tempted to rub the person's arms and legs. This can make the problem worse. The skin of an older person may be thinner and more easily torn than the skin of someone younger.

What Things Put Me At Risk?

There are some things that put any older person at risk for hypothermia. What can you do?

- Try to stay away from cold places. Changes in your body that come with aging can make it harder to feel when you are getting cold. It may be harder for your body to warm itself. Pay attention to how cold it is where you are.
- Make sure you eat enough food to keep up your weight. If you don't eat well, you might have less fat under your skin. Fat keeps heat in your body.
- See your doctor to keep any illnesses under control. Some illnesses may make it harder for your body to stay warm. Be careful of:
  - Problems with your body's hormone system such as low thyroid hormone (hypothyroidism)
  - Any health problem that keeps blood from flowing normally such as diabetes
  - Some skin problems such as psoriasis that allow your body to lose more heat than normal.

- Sometimes you need to put on more clothes, use a blanket, or move out of the cold. Health problems may make that hard to do. For example:
  - Severe arthritis, Parkinson's disease, or other illnesses that make it harder to move around
  - Stroke or other illnesses that can leave you paralyzed and make clear thinking more difficult
  - Memory disorders or dementia
  - A fall or other injury
- Ask your doctor how the medicines you take affect body heat. Some medicines often used by older people can increase the risk of accidental hypothermia. These include drugs used to treat anxiety, depression, or nausea. Some over-the-counter cold remedies can also cause problems.
- Do not drink alcohol before bedtime when it gets colder outside—and maybe inside, too. Alcoholic drinks can also make you lose body heat faster. Use alcohol moderately, if at all.

- Wear several layers of *loose* clothing when it is cold. The layers will trap warm air between them. Clothing can make you colder or help keep you warm. *Tight* clothing can keep your blood from flowing freely. This can lead to loss of body heat.

Staying Warm Inside and Out

Maybe you already knew that your health, your age, what you eat or drink, even your clothes can make it hard for you to stay warm enough wherever you are. What you might not realize is that people can also get cold enough inside a building to get very sick. In fact, hypothermia can even happen to someone in a nursing home or group facility if the rooms are not kept warm enough. People who are already sick may have special problems keeping warm. If someone you know is in a group facility, pay attention to the inside temperature there and to whether that person is dressed warmly enough.

Homes or apartments that are not heated enough, even with a temperature of 60° F to 65° F, can lead to illness. This is a special problem if you live alone because there is no one else to comment on the chilliness of the house or to notice if you are having symptoms of hypothermia. Set your thermostat for at least 68° F to 70° F. If a power outage leaves you without heat, try to stay with a relative or friend.

Avoid using space heaters if your home seems cold or if you want to keep the thermostat set lower to keep your heating costs down. Some types are fire hazards, and others can cause carbon monoxide poisoning. The Consumer Product Safety Commission has information on the use of space heaters, but here are a few things to remember:

- Make sure your space heater has been approved by a recognized testing laboratory.
- Choose the right size heater for the space you are heating.
- Keep substances that can catch fire like paint, pets, clothing, towels, curtains, and papers away from the heating element.
- Keep the door to the rest of the house open for good air flow.
- Turn the heater off when you leave the room or go to bed.
- Make sure your smoke alarms are working.

- Put a carbon monoxide detector near where people sleep.
- Keep the right type of fire extinguisher nearby.

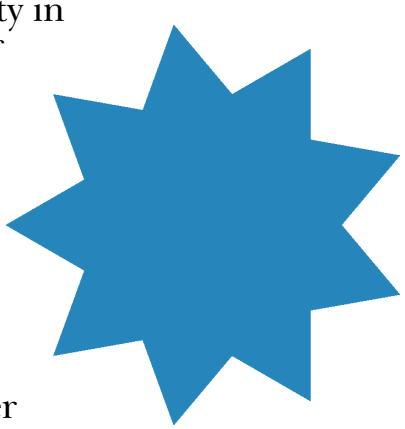
Don't forget that you need to stay warm when it's cold outside. Remember that this means knowing if weather forecasts are for very cold temperatures or for windy and cold weather. You lose more body heat on a windy day than a calm day. Weather forecasters call this the wind-chill factor. They often suggest, even when the outside temperature itself is not very low, that the wind-chill factor is cold enough for people to stay indoors. If you must go out, dress correctly. Be sure to wear a hat and gloves, as well as warm clothes.

Is There Help for My Heating Bills?

Sometimes older people need help making sure their home will keep them warm enough. Some help is available. If your home doesn't have enough insulation, contact your state or local energy agency or the local power or gas company. They can give you information about weatherizing your home. This can help keep the heating bills down. You might also think about only heating the rooms you use in the house. For example, shut the heating vents and doors to any bedrooms not being used. Keep the door to the basement closed.

If you have a limited income, you may qualify for help paying your heating bill. State and local energy agencies, or gas and electric companies, may have special programs. Another possible source of help is the Low Income Home Energy Assistance Program (LIHEAP). This program supports some people with small incomes who need help paying their heating and cooling bills. Your local area agency on aging, senior center, or community action agency may have information on programs such as these.

Are you worried that your landlord may want to cut off the gas or electricity in cold weather if you cannot pay a utility bill? Many states and cities now have laws to protect you, at least until other plans are made.



Do not wait for winter to find out about these programs. Check with your local government about the laws that may apply where you live.

For More Information

Consumer Product Safety Commission
Washington, DC 20207-0001
1-800-638-2772
1-800-638-8270 (TTY)
www.cpsc.gov

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.n4a.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

August 2001
Reprinted July 2005