National Institute on Aging



Stroke

John and Edith were playing cards one night when John asked Edith a question. She tried to answer but couldn't speak. John knew something was very wrong. Could it be a stroke? Without waiting, he called 911. The ambulance took Edith to the hospital. Emergency doctors said it was a stroke — John was right. Because John called for help quickly, Edith got the medical care she needed without delay. She started getting well, her speech came back, and once again she's having long talks with John.

Edith was lucky. A stroke can cause lasting physical and mental problems and even death in older people. Knowing the symptoms of a stroke and acting quickly could mean the difference between life and death. You can also take steps to lower your chance of even having a stroke.

What Is a Stroke?

A stroke happens when something changes how blood flows through the brain. Blood brings oxygen and nutrients to brain cells. If blood can't flow to a part of the brain, cells there could soon start to die. If brain cells are only damaged, they sometimes get better. But brain cells that have died can't be brought back to life. So, someone who has had a stroke may have trouble speaking, thinking, or walking.

There are two major types of strokes. The most common kind (*ischemic*) is caused by a blood clot or the narrowing of a blood vessel (artery) leading to the brain. This keeps blood from flowing into other parts of the brain and keeps needed oxygen and nutrients from reaching brain cells there. In the second major kind of stroke (*hemorrhagic*), a broken blood vessel causes bleeding in the brain. This break in the vessel also stops oxygen and nutrients from reaching brain cells.

Stroke Is an Emergency. Call 911.

Never ignore the symptoms of stroke. Call 911 if you have **any** stroke symptoms, even if they don't last long.

Call 911 RIGHT AWAY if you see or have any of these symptoms:

- Sudden numbness or weakness in the face, arm, or leg—especially on one side of the body
- Sudden confusion or trouble speaking or understanding
- Sudden problems seeing in one eye or both eyes
- Sudden dizziness, loss of balance or coordination, or trouble walking
- Sudden severe headache with no known cause

DON'T IGNORE THE SIGNS OF STROKE!

Sometimes the symptoms of a stroke last only a few minutes and then go away. That could be a TIA (*transient ischemic attack*), also called a mini-stroke. A TIA is a medical emergency. You should get medical help right away. If a TIA is not treated quickly, it could be followed within hours or days by a major disabling stroke.

What Will the Doctor Do?

The doctor will diagnose a stroke based on symptoms, medical history, and medical tests, like a CT scan. A CT scan is a kind of test that lets doctors look closely at pictures of the brain. All strokes benefit from immediate medical treatment! But, only people with ischemic stroke, the kind caused by a clot, can be helped by a drug called t-PA (tissue-plasminogen activator). This drug breaks up blood clots and can greatly lessen the damage caused by an ischemic stroke. Starting treatment with the drug t-PA within 3 hours after an ischemic stroke is key to recovery. By getting to a hospital right away, there will be time for a CT scan of the brain. This scan will show whether this clot-busting medicine is the right treatment choice.

What Happens After a Stroke?

A stroke can cause a variety of health problems. Someone who has a stroke might be paralyzed or have weakness, usually on one side of the body. He or she might have trouble speaking or using words. There could be swallowing or memory problems. Someone who has had a stroke might feel depressed or find it hard to control emotions. There might be pain or numbness.

There are many different ways to help people get better after a stroke. Many treatments start in the hospital and continue at home. Drugs and physical therapy can help improve balance, coordination, and some problems such as trouble speaking and using words. Occupational therapy can make it easier to do things like taking a bath or cooking.

A family doctor can provide follow-up care. Some people make a full recovery soon after a stroke. Others take months or even years. But, sometimes the damage is so serious that therapy cannot really help.

Lower Your Risk of Stroke

Talk to your doctor about what you can do to lower your risk of stroke. Even if you're in perfect health, follow these suggestions:

- Control your blood pressure. Have your blood pressure checked often. If it is high, follow your doctor's advice to lower it. Treating high blood pressure lowers the risk of both stroke and heart disease.
- Stop smoking. Smoking increases your risk for stroke. It's never too late to quit.
- Control your cholesterol. If you have high cholesterol, work with your doctor to lower it. Cholesterol, a type of fat in the blood, can build up on the walls of your arteries. In time, this can block blood flow and lead to a stroke.

- Control your diabetes. Untreated diabetes can damage blood vessels and also leads to narrowed arteries and stroke. Follow your doctor's suggestions for keeping diabetes under control.
- Eat healthy foods. Eat foods that are low in cholesterol and saturated fats. Include a variety of fruits and vegetables every day.
- Exercise regularly. Try to make physical activity a part of your everyday life. Doing things like taking a brisk walk, riding a bicycle, swimming, and working around the yard lower your chance of stroke. You might check with your doctor before you begin if you are over 50 and aren't used to energetic activity. The National Institute on Aging, listed in *For More Information*, has a free booklet on exercise.

For More Information

The National Library of Medicine of the National Institutes of Health has a website, *www.medlineplus.gov*, with information on many health subjects, including stroke. Click on Health Topics. Choose subjects like *Stroke*, *Aphasia*, and *Transient Ischemic Attack* by clicking on the first letter of the topic you want and scrolling down the list. Here are some other helpful Federal and non-Federal resources.

American Stroke Association

7272 Greenville Avenue Dallas, TX 75231 888-478-7653 (toll-free) www.strokeassociation.org

National High Blood Pressure Education Program

National Heart, Lung, and Blood Institute Health Information Center P.O. Box 30105 Bethesda, MD 20824-0105 301-592-8573 240-629-3255 (TTY) www.nhlbi.nih.gov

National Institute of Neurological Disorders and Stroke

Information Office P.O. Box 5801 Bethesda, MD 20824-5801 800-352-9424 (toll-free) www.ninds.nih.gov

National Stroke Association 9707 East Easter Lane Building B Centennial, CO 80112 800-787-6537 (toll-free) *www.stroke.org*

For more information about health and aging, including diabetes, smoking, high blood pressure, and exercise, contact:

National Institute on Aging Information Center

P.O. Box 8057 Gaithersburg, MD 20898-8057 800-222-2225 (toll-free) 800-222-4225 (TTY/toll-free) www.nia.nih.gov www.nia.nih.gov/Espanol

To order publications (in English or Spanish) or sign up for regular email alerts, visit *www.nia.nih. gov/HealthInformation.*

Visit NIHSeniorHealth

(*www.nihseniorhealth.gov*), a seniorfriendly website from the National Institute on Aging and the National Library of Medicine. This website has health information for older adults. There are also special features that make it simple to use. For example, you can click on a button to have the text read out loud or to make the type larger.



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