



Stroke: Brain Attack! Call 911 Immediately!

Introduction:

The purpose of this brochure is to:

- Discuss basic information about stroke.
- Name the signs of a stroke.
- Explain why you should dial 911 if you see the signs of a stroke in yourself or someone else.
- List the risks of having a stroke.
- Identify stroke risks that you can change.
- Describe what happens if you have a stroke.

What is a Stroke?

There are two types of stroke. The first type happens when the blood flow to a person's brain is blocked by a blood clot. This is called an **Ischemic** Stroke.

The second type happens when an artery bursts and it bleeds into brain tissue or the area around the brain. This is called a **Hemorrhagic** Stroke.

Your brain cells must have a constant supply of the oxygen that is carried in your blood to stay alive. When the blood flow to your brain is blocked, even for a few seconds, brain cells will start to die. The damage caused by the stroke depends on where in the brain it happened and how much area was starved of oxygen.

Cerebrovascular Accident

A stroke is also called a cerebrovascular accident or CVA; "cerebro" means that you are talking about the brain and "vascular" is another word for the blood system. It is called an "accident" because it can happen unexpectedly and suddenly, maybe even without warning.

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Stroke: The Leading Cause of Disability

Stroke is the third leading cause of death in the United States, after heart disease and cancer. But stroke takes first place as the leading cause of disability. Many people who have a stroke will be left with lasting problems with how their body works. Rehabilitation and therapy may be needed to help them deal with the changes caused by the stroke.

Time is Brain

In the old days there wasn't much that could be done for someone who had a stroke. In recent years this has changed. Everything hinges on getting blood flow back to the brain cells that can still be rescued. This must happen quickly. That is why people who study strokes say "Time is Brain." A stroke is now treated like an emergency the way a heart attack is. Dial 911 or call your Emergency Response System immediately if you experience stroke symptoms or see someone who appears to be having a stroke.

Stroke Symptoms: FAST

The National Stroke Association (www.stroke.org) teaches a simple way to recognize stroke symptoms:

- F Face:** Ask the person to smile. Does one side of the face droop?
- A Arms:** Ask the person to raise both arms. Does one arm drift or fall downward?
- S Speech:** Ask the person to repeat a simple sentence. Is their speech slurred or strange?
- T Time:** Call 911 immediately if you observe any of these symptoms.
Note the time the symptoms first appeared!

Stroke symptoms:

Sudden numbness or weakness of the face, arm, or leg especially on one side of the body

Sudden confusion or trouble speaking or understanding

Sudden trouble seeing in one or both eyes

Sudden trouble walking, dizziness, loss of balance or coordination

Sudden severe headache with no known cause

Transient Ischemic Attack (TIA)

Sometimes a person has these symptoms but they go away within a few minutes or last up to 24 hours. The person may appear normal again. This might be what is called a Transient Ischemic Attack (TIA). The oxygen to the brain was briefly blocked but then the clot broke up and blood flow was restored. It is still very important that you dial 911 or call your Emergency Response System immediately. A TIA is a warning sign that you are at a high risk to have a full-blown stroke. Your doctor will want to find out the cause of the TIA and try to prevent a stroke from happening.

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Uncontrollable Stroke Risk Factors:

There are some risk factors for having a stroke that you can do nothing about such as age, gender, race or ethnicity, and heredity. For example, studies show the risk of stroke increases with age. Men have more strokes at younger ages. Women have longer life spans with more strokes in old age. African Americans and Hispanics have a higher stroke risk than Caucasians. Having a family member with a stroke increases your risk of having a stroke.

Modifiable Stroke Risk Factors:

There are other stroke risks that are called “modifiable risk factors.” You have the possibility of influencing these factors with medicine AND lifestyle changes. It is very important that you discuss your risk of having a stroke with your doctor.

High blood pressure – Maintain your blood pressure within target range; your doctor may order medicine for blood pressure control.

Heart disease – Medicines may be ordered to support your heart function; antiplatelet or anticoagulation medicines help prevent blood clots from forming. Control your blood pressure and lipids (fatty acids in the blood).

Diabetes Mellitus – Monitor and control blood sugar levels; control your blood pressure and lipids; maintain regular exercise and a healthy diet.

High Cholesterol – Control lipids; maintain a target body weight, regular exercise, eat a healthy diet; take medicines as prescribed.

Cigarette Smoking – **STOP SMOKING.** The risk of stroke in smokers is twice that of non-smokers. Smoking reduces oxygen to your brain, makes your heart work harder, and allows blood clots to form easier. Talk to your doctor about getting help with quitting smoking.

Excessive use of Alcohol – Discuss your alcohol intake with your doctor and do not take more than what is recommended as your safe limit.

Physical inactivity – 30 minutes of moderate-intensity exercise most days is usually recommended, discuss your individual exercise program with your doctor.

Obesity – Talk with your doctor about weight reduction options and programs that include diet, physical activity, and behavior counseling.

Drug Abuse – Use of drugs such as cocaine and methamphetamine cause high blood pressure and inflame your arteries, making it easier for them to burst and bleed into your brain. It is vital that you talk with your doctor about how to stop taking these drugs.

What happens when you dial 911 because you think you or someone else might be having a stroke?

There has been a lot of progress made in the treatment of stroke in recent years. Many hospitals now have Stroke Centers. Emergency Response Teams are geared to recognize the signs of stroke and take quick action. Right away the first questions are: Is it a stroke and, if so, what type is it? A stroke that is caused by a blood clot will be treated differently from a stroke caused by a bleed.

Stroke: Possible Treatment Options

In the Emergency Room, you will get a computed tomography (CT) scan right away for a suspected stroke. A CT scan can quickly show if there is a bleed in your brain. A “clot-buster” drug might be used if your stroke is not caused by a bleed. You have to meet specific guidelines before you qualify to receive a “clot-buster” drug. One of these guidelines is that it has to be within 3-4 hours since your stroke symptoms were first noticed. This is the time period when the benefit of using the “clot-buster” drug may outweigh the risk. That is why there is so much urgency that you dial 911 for stroke symptoms. There are also special methods that can be used to remove the blood clot if you meet the specific guidelines for that procedure. If it appears that your stroke is caused by a bleed instead of a blood clot then surgery may be an option.

Making an Informed Decision

The choice of treatments that the doctor offers you will depend on what is known about your individual type of stroke and your medical history. You should feel free to ask any questions. It is very important that you understand the benefits and risks of your choices before you decide. This is called making an “informed decision.”

What happens next?

If you do receive the “clot-buster” drug, you will be monitored in the Intensive Care Unit at least overnight. If you have surgery for your stroke then you will also spend some time in the Intensive Care Unit. You will begin working with your therapy team as soon as you are stable. The main focus at first is to determine the extent of the damage caused by the stroke. Some people have problems with their thinking and the ability to speak and communicate. Others are not able to swallow without choking. Some have weakness in their arms and legs. Your safety is very important at this time. Making sure that you don't fall or get pneumonia from choking is an ongoing priority.

After Stroke: A Therapy Plan

Your care team that includes your doctor, nurses, therapists, dieticians, and case managers will make a plan with you for helping you get the best recovery possible. Your physical therapist will work on improving your ability to use your legs. Your occupational therapist will help you re-learn how to do daily activities such as dressing, bathing, and feeding yourself. Your speech therapist will assess your ability to think and communicate, as well as your ability to swallow. The dietician will calculate if you are getting enough nutrition and make suggestions to improve your diet. The main goal of therapy is to give you the best chance of taking care of yourself to the best of your ability.

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Leaving the Hospital

Deciding where you go after leaving the hospital depends how well you can safely take care of yourself. The case manager will help you identify and use your resources and your support systems. These will be considered in the decision-making process about what you do next. Sometimes an inpatient or outpatient rehabilitation program is recommended after leaving the hospital to help you adjust to life after your stroke.

Secondary Stroke Prevention:

It is very important to do everything possible to prevent having another stroke. Study your modifiable stroke risks and decide where your danger areas lie. The doctor and your care team will help you to change in your lifestyle and lower the chances of having a secondary stroke. Your doctor may prescribe medicine for blood pressure and heart functioning. You may need to take medicine that prevent blood clots, lower cholesterol, or control diabetes. There are also medicines that help with spasticity (stiffness) or bowel and bladder issues. If you smoke, your doctor will tell you to quit smoking and give you some help with this. Your doctor will tell you that you should get your weight into a healthy range. There are resources that can help you with these lifestyle changes and your doctor and the care team are there to help you access these resources.

In Summary:

Know the signs of stroke and dial 911 or call your Emergency Response System immediately if you see them. Discuss your individual stroke risk with your doctor and make a plan to change what you can if you have modifiable stroke risks. Stay informed about stroke and share what you have learned with your family and friends.

www.stroke.org