National Stroke Association

Stroke Facts

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Recovery After Stroke: Recurrent Stroke

After stroke, survivors tend to focus on rehabilitation and recovery. But, preventing another (or recurring) stroke is also a key concern. Of the 795,000 Americans who have a stroke each year, 5 to 14 percent will have a second stroke within one year. Within five years, stroke will recur in 24 percent of women and 42 percent of men.

Percentage of Recurrence After First Stroke	
3% to 10%	30-Day
5% to 14%	1-Year
25% to 40%	5-Year

Stroke prevention is also crucial for those who have had transient ischemic attacks (TIAs) or mini-strokes. TIAs are brief episodes of stroke-like symptoms that last from a few minutes to 24 hours. TIAs usually don't cause permanent damage or disability. But, they can be a serious warning sign of an impending stroke. Up to one third of people who have a TIA are expected to have a stroke. Just like the first strokes, many recurrent strokes and TIAs can be prevented through lifestyle changes, surgery, medicine, or a mix of all three.

Your Lifestyle Choices

Everyone has some stroke risk. But, there are two types of stroke risk factors. One type you can't control. The other you can.

Stroke risk factors you can't change include:

- Being over age 55
- Being a man
- Being African American
- Someone in your family has had a stroke
- Having diabetes

Having one or more of these factors doesn't mean you will have a stroke. By making simple lifestyle changes, you may be able to reduce the risk of a first or recurrent stroke.

These simple lifestyle changes can greatly reduce your chance of having a stroke:

- Control your blood pressure
- Find out if you have atrial fibrillation (an irregular heartbeat which allows blood to pool in the heart and cause blood clots)
- Quit smoking
- Limit alcohol
- Monitor your cholesterol levels
- Manage your diabetes
- Exercise often
- Eat foods low in sodium (salt) and fat
- Monitor circulation problems with the help of your doctor

Monitor Your Blood Pressure

High blood pressure is one of the most important and easily controlled stroke risk factors. So it's important to know your blood pressure range!

Blood pressure is given in two numbers, for example 120/80. The first number, the systolic blood pressure, is a measurement of the force your blood exerts on blood vessel walls as your heart pumps. The second, diastolic blood pressure, is the measurement of the force your blood exerts on blood vessel walls when your heart is at rest.

- For people over age 18, normal blood pressure is lower than 120/80. A blood pressure reading consistently 120/80 to 139/89 is pre-hypertension. If yours falls in this range, you are more likely to progress to high blood pressure. Also called hypertension, high blood pressure is a reading of 140/90 or higher.

- Have your blood pressure checked at least once each year — more often if you have high blood pressure, have had a heart attack or stroke, are diabetic, have kidney disease, have high cholesterol or are overweight. If you are at risk for high blood pressure, ask your doctor how to manage it more aggressively.

Often blood pressure can be controlled through diet and exercise. Even light exercise — a brisk walk, bicycle ride, swim or yard work — can make a difference. Adults should do some form of moderate physical activity for at least 30 minutes five or more days per week, according to the Centers for Disease Control and Prevention. Regular exercise may reduce your risk of stroke. Before you start an exercise program, check with your doctor.

Your Blood Pressure is High

What do you do if you still have high blood pressure, even though you have made an effort to eat healthy foods and exercise? Then it's time to talk to your doctor.

A doctor can advise you about better lifestyle choices. Medicine may also be needed.
Many drugs can help treat high blood pressure. The most common are calcium channel blockers or ACE-inhibitors. You may have to try several different drugs before you find one that works for you. This is common. So, try not to be discouraged if it happens. Once you find a drug that works, take it as directed and exactly as prescribed, even when you feel fine.

Medicines

Medicine may help reduce stroke risk. In addition to those that treat high blood pressure, drugs are also available to control high cholesterol and treat heart disease. There are also drugs that can interfere with the blood's tendency to form potential stroke-causing blood clots.

Heart Disease

Many forms of heart disease can increase your stroke risk. One form — known as atrial fibrillation or AF — causes blood to form clots that can travel to the brain and cause a stroke. AF is an irregular heartbeat.

Warfarin (Coumadin®) and aspirin are often prescribed to treat AF. People taking warfarin should be monitored carefully by a doctor. Also, people taking this drug should limit foods rich in vitamin K, which in large quantities may offset the drug's effects. Examples of these foods include green leafy vegetables, alfalfa, egg yolks, soy bean oil and fish livers.

High Cholesterol

High levels of cholesterol may also increase stroke risk by not letting blood move freely through the arteries. Cholesterol build-up can break off. This can cause a clot to form or a stroke to occur. A few drugs, such as statins, may help lower cholesterol. Some statins have helped reduce the risk of stroke or TIA in people who have had a heart attack. They have even helped some with average or only slightly high cholesterol.

Blood Clotting

There are also a few drugs that can prevent clots, helping reduce risk of a second stroke.

Aspirin is the least costly and longest lasting of these drugs. A newer, more effective option is a combination of aspirin and extended-release dipyridamole, called Aggrenox®. Or, your doctor might choose to treat you with Clopidogrel (Plavix®). Warfarin is often prescribed to prevent clots from forming in those with atrial fibrillation.

Surgical Options

For those whose first stroke was caused by a blockage in the carotid arteries (vessels that carry blood from the heart to the brain), surgery known as carotid endarterectomy may help reduce risk of another stroke.

During surgery, blockages and build-up in the arteries are removed to restore the free flow of blood. Your doctor is the best judge to decide if this is a good option for you.

Compliance is Critical

The key to preventing recurrent stroke is simple: follow your doctor's suggestions about diet, exercise and weight loss, and take any medicine as directed. Your doctor will decide what's best for you based on your general health and your medical history. By understanding the basis for these decisions, you'll be better able to follow the suggestions and make informed choices that will help reduce your risk of stroke.

Rehabilitation is a lifetime commitment and an important part of recovering from a stroke. Through rehabilitation, you relearn basic skills such as talking, eating, dressing and walking. Rehabilitation can also improve your strength, flexibility and endurance. The goal is to regain as much independence as possible.

Remember to ask your doctor, "Where am I on my stroke recovery journey?"

Note: This fact sheet is compiled from general, publicly available information and should not be considered recommended treatment for any particular individual. Stroke survivors should consult their doctors about any personal medical concerns.