

STROKE GUIDE

A stroke occurs when the blood supply to part of your brain is interrupted or severely reduced, depriving brain tissue of oxygen and nutrients. Within minutes, brain cells begin to die. The good news is that strokes can be treated and prevented.



THE CAUSES

A stroke may be caused by a blocked artery (**ischemic stroke**) or the leaking or bursting of a blood vessel (**hemorrhagic stroke**).

ISCHEMIC STROKE

About 85% of strokes are ischemic strokes that occur when the arteries to your brain become narrowed or blocked, causing severely reduced blood flow. Most common ischemic strokes include:

Thrombotic stroke. Blood clot forms in one of the arteries that supply blood to your brain. A clot may be caused by fatty deposits (plaque) that build up in arteries and cause reduced blood flow or other artery conditions.

Embolic stroke. An embolic stroke occurs when a blood clot or other debris forms away from your brain — commonly in your heart — and is swept through your bloodstream to lodge in narrower brain arteries. This type of blood clot is called an embolus.

HEMORRHAGIC STROKE

Occurs when a blood vessel in your brain leaks or ruptures. Brain hemorrhages can result from many conditions, including uncontrolled hypertension and weak spots in your blood vessel walls (aneurysms). Types of hemorrhagic stroke include:

Intracerebral hemorrhage. Blood vessel in the brain bursts and spills into the surrounding brain tissue, damaging brain cells. High blood pressure, trauma and other conditions may cause it.

Subarachnoid hemorrhage. An artery on or near the surface of your brain bursts and spills into the space between the surface of your brain and skull, often signaled by a sudden, severe headache. This is commonly caused by the bursting of a small sack-shaped or berry-shaped outpouching on an artery known as an aneurysm.

SYMPTOM CHECKER

- **Trouble with speaking and understanding.** You may experience confusion, slur your words, or have difficulty understanding speech.
- **Paralysis or numbness of the face, arm or leg.** You may develop sudden numbness, weakness or paralysis in your face, arm or leg, especially on one side of your body. Try to raise both your arms over your head at the same time. If one arm begins to fall, you may be having a stroke.
- **Trouble with seeing in one or both eyes.** You may suddenly have blurred or blackened vision in one or both eyes, or you may see double.
- **Headache.** Sudden, severe headache, which may be accompanied by vomiting, dizziness or altered consciousness.
- **Trouble with walking.** You may stumble or experience sudden dizziness, loss of balance or loss of coordination.

Note when your signs and symptoms begin, because the length of time they have been present may guide your treatment decisions.

Seek immediate medical attention if you notice any signs or symptoms of a stroke, even if they seem to fluctuate or disappear.

Learn how to detect stroke **FAST!**

- F** **ACE.** Ask the person to smile. Does one side of the face droop?
- A** **RMS.** Does one arm drift downward? Or is one arm unable to raise up?
- S** **PEECH.** Ask the person to talk. Is his or her speech slurred or strange?
- T** **IME.** If you observe any of these signs, seek help immediately.

Don't wait to see if symptoms go away. Every minute counts.

DIAGNOSIS

Physical examination

Your doctor will check your blood pressure, listen to your heart, and listen for a whooshing sound (bruit) over your neck (carotid) arteries, which may indicate atherosclerosis. Your doctor may also check for signs of tiny cholesterol crystals or clots in the blood vessels at the back of your eyes.

Blood tests

You may have several blood tests, which tell your care team how fast your blood clots, whether your blood sugar is abnormally high or low, whether critical blood chemicals are out of balance, or whether you may have an infection.

Computerized tomography (CT) scan

A CT scan uses a series of X-rays to create a detailed image of your brain. It can show hemorrhage, tumor, stroke and other conditions.

Magnetic resonance imaging (MRI)

An MRI uses powerful radio waves and magnets to create a detailed view of your brain. An MRI can detect brain tissue damaged by an ischemic stroke and brain hemorrhages.

Carotid ultrasound

In this test, sound waves create detailed images of the inside of the carotid arteries in your neck. This test shows buildup of fatty deposits (plaques) and blood flow in your carotid arteries.

Cerebral angiogram

This procedure gives a detailed view of arteries in your brain and neck.

Echocardiogram

An echocardiogram uses sound waves to create detailed images of your heart. An echocardiogram can find a source of clots in your heart that may have traveled from your heart to your brain and caused your stroke.

