

Let's Talk About a Stroke Diagnosis

How is a stroke diagnosed?

It's critical to diagnose a stroke in progress because the treatment for stroke depends on the type, the source of the stroke (usually related to risk factors), and in some cases, the location of the injury to the brain.

Other conditions with similar symptoms to stroke and transient ischemic attack (TIA, or "warning stroke" or "mini-stroke") will need to be ruled out to diagnose stroke. Some of these include seizures, fainting, migraine, heart problems or other general medical conditions.

The type of stroke also must be determined. Treatment for stroke is different if it's an ischemic stroke or a hemorrhagic stroke.

Ischemic strokes, caused by a blocked artery in the brain, may be treated with a clot-busting drug, called tPA (tissue plasminogen activator). Therefore, it's important to receive a correct diagnosis before treatment begins. To receive a clot-busting drug treatment such as tPA, a medical doctor must diagnose your stroke as an ischemic stroke and treat you within three hours of the onset of symptoms. If more than three hours passes, tPA can't be given.

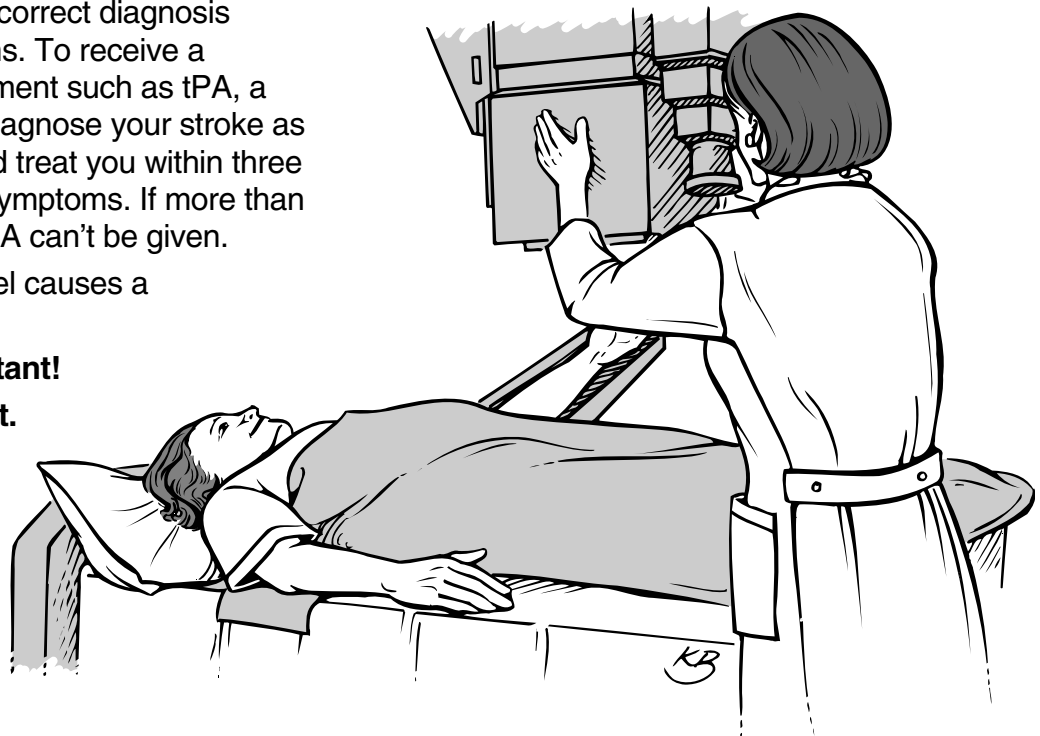
A ruptured blood vessel causes a hemorrhagic stroke.

Timing is very important!

Time lost is brain lost.

In the emergency room, your doctor or stroke emergency team may:

- Ask you when the symptoms of the stroke started.
- Ask you about your medical history.
- Conduct a physical and neurological examination.
- Have certain laboratory (blood) tests done.
- Do a CT (computed tomography) scan of the brain or MRI (magnetic resonance imaging) brain scan. This determines what kind of stroke a person has had.
- Study the results of other diagnostic tests that might be needed.



What are the types of diagnostic tests?

A doctor may use many different tests. Diagnostic tests examine how the brain looks, works and gets its blood supply. Most are safe and painless. Diagnostic tests fall into two categories: 1) imaging tests and 2) blood flow tests.

Imaging Tests

- CT scan (computed tomography) or CAT scan is a key imaging test of the brain. It uses radiation to create a picture (like an X-ray) of the brain. It's usually one of the first tests given to a patient with stroke symptoms. CT test results give valuable information about the cause of stroke and the location and extent of brain injury.
- MRI (magnetic resonance imaging) uses a large magnetic field to produce an image of the brain. Like the CT scan, it shows the location and extent of brain injury. The image produced by MRI is sharper and more detailed than a CT scan, so it's often used to diagnose small, deep injuries.

Blood Flow Tests

These tests give detailed information about the condition of arteries in your head and neck that supply blood to your brain. Another test is a medical procedure called cerebral angiography, otherwise known as cerebral arteriography. In this test, special substances are injected into the blood vessels and an X-ray is taken. Cerebral angiography gives a picture of the blood flow through the vessels. This allows the size and location of blockages to be evaluated. This test is especially valuable in diagnosing aneurysms and malformed blood vessels and providing valuable information before surgery.

How can I learn more?

- Talk to your doctor, nurse or other healthcare professionals. Ask about other stroke topics. This is one of many *Let's Talk About Stroke* fact sheets.
- For more information about stroke, or to get more fact sheets, call the American Stroke Association at 1-888-4-STROKE (1-888-478-7653) or visit us online at StrokeAssociation.org.
- If you or someone you know has had a stroke, call the American

Stroke Association's "Warmline" at 1-888-4-STROKE (1-888-478-7653), and:

- ✓ Speak with other stroke survivors and caregivers trained to answer your questions and offer support.
- ✓ Get information on stroke support groups in your area.
- ✓ Sign up to get *Stroke Connection*, a free magazine for stroke survivors and caregivers.

Do you have questions for your doctor or nurse?

Take a few minutes to write your own questions for the next time you see your healthcare provider:

Do these tests cause any complications?

