American Stroke Association.
A division of the
American Heart Association.

let's talk about
STROKE

Treatment

let's talk about a

Stroke Diagnosis

It's critical to diagnose a stroke in progress because the treatment for stroke depends on the type of stroke, and, in some cases, the location of the injury to the brain.

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

A CT or "CAT" scan is usually one of the first tests used to diagnose stroke.

How is a stroke diagnosed?

The type of stroke must be determined for proper treatment. Ischemic strokes are caused by a blocked artery in the brain. A ruptured blood vessel causes a hemorrhagic stroke. Treatment for ischemic stroke is different than it is for a hemorrhagic stroke.

In the emergency room, your stroke emergency team may:

- Ask you when the symptoms of the stroke started. This is critical in determining what treatment is best for you.
- Ask you about your medical history.
- Do a physical and neurological examination.
- Have certain lab (blood) tests done.
- Do a CT (computed tomography) 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 done.

What are the types of diagnostic tests?

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

IMAGING TESTS

- **CT (computed tomography) or CAT scan.** 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 information about the cause of stroke and the location and extent of brain injury.
- **MRI (magnetic resonance imaging).** This test 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 more detailed than a CT scan, so it's often used to diagnose small, deep injuries to the brain.
- **CTA (computed tomographic angiography).** In CTA, a special contrast material (dye) is injected into a vein and images are taken of the blood vessels to look for abnormalities such as an aneurysm.

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- **MRA (magnetic resonance angiography).** In this test, the blood vessels are imaged through a magnetic resonance scanner to locate a blocked artery or to identify if a cerebral aneurysm is present.

Additional advanced tests that may be done include CT perfusion, diffusion-weighted MRI or MRI perfusion.

BLOOD FLOW TESTS

These tests give information about the condition of arteries in your head and neck that supply blood to your brain.

- **Cerebral angiography (or cerebral arteriography).** Special substances are injected into the blood vessels and an X-ray is taken. This test gives a picture of the blood flow through the vessels. This allows the size and location of blockages to be seen. This test helps in diagnosing aneurysms and malformed blood vessels.

How will I be treated?

The treatment you will receive will depend on the type of stroke you have been diagnosed with.
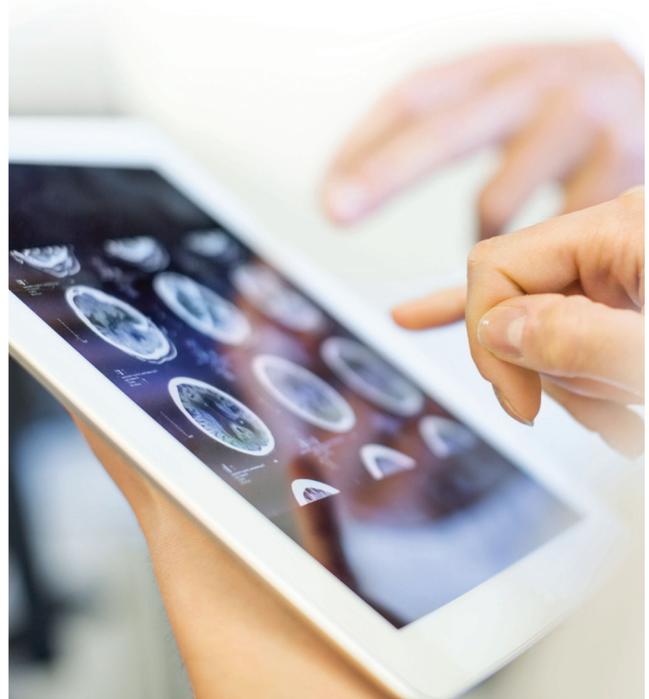
HOW CAN I LEARN MORE?

1. Call **1-888-4-STROKE** (1-888-478-7653) or visit **stroke.org** to learn more about stroke or find local support groups

2. Sign up for *Stroke Connection*, a free digital magazine for stroke survivors and caregivers, at **strokeconnection.org**.

3. Connect with others who have also had an experience with stroke by joining our Support Network at **stroke.org/supportnetwork**.

Do you have questions for your doctor or nurse?

Take a few minutes to write down your questions for the next time you see your health care provider.

For example:

Do these tests cause any complications?

MY QUESTIONS:

We have many other fact sheets to help you make healthier choices, manage your condition or care for a loved one. Visit stroke.org/letstalkaboutstroke to learn more.