INFORMATION ABOUT STROKE FOR PATIENTS AND FAMILIES

UF&Shands
The University of Florida Academic Health Center

What is a stroke?

A stroke occurs when a blood clot or torn blood vessel stops blood from reaching the brain. As a result, the part of the body controlled by the damaged area of the brain cannot work properly.

The effects of a stroke can be mild to severe and temporary or permanent. A stroke can affect vision, speech, behavior, the ability to think and the ability to move parts of the body. It can cause death.

The effects of a stroke depend on three factors: the specific area of the brain that is damaged, how much of the brain is affected and how fast blood flow is restored to the affected area.

What is an Ischemic Stroke?

Ischemic [ih-skee-mik] stroke occurs when a blood vessel that supplies blood to the brain is blocked by a blood clot. This can happen in two ways:

- A clot can form in an artery that is already very narrow. The clot is called a thrombus [throm-buhs] and may completely block the artery causing a thrombotic [throm-bot-ik] stroke.
- A clot can break off from somewhere else in the body and travel to the brain where it blocks an artery. This kind of clot is called an embolism [em-buh-liz-uhm] causing an **embolic** [em-bol-ik] stroke.

Ischemic strokes can also be caused by clogged arteries.

- Fat, cholesterol, and other substances collect on the wall of the arteries, forming a sticky substance called plaque. Over time, the plaque builds up making it hard for blood to flow properly. This can cause the blood to clot.
- This condition is called **atherosclerosis** [ath-uh-roh-skluh-roh-sis].

Ischemic strokes can also be caused by blood clots that form in the heart.

- These clots travel through the blood and can get stuck in the arteries of the brain.
- This is known as a **cerebral** [suh-ree-bruhl]embolism.

Certain drugs and medical conditions can make your blood more likely to clot and raise your risk for ischemic stroke.

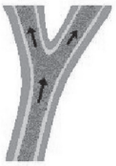
A cause of ischemic stroke in people under age 40 is a **dissection** [dih-sek-shuhn]. This is when the lining of the artery tears.

What is a Hemorrhagic Stroke?

Hemorrhagic [hem-uh-raj-ik] stroke is caused by sudden bleeding in or around the brain. A blood vessel bleeding inside the brain is called a cerebral hemorrhage [hem-er-ij]. Bleeding in the spaces around the brain is called a **subarachnoid** [suhb-uh-rak-noid] hemorrhage.

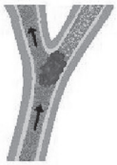
- Sudden bleeding may be caused by the bursting of a blood vessel that has stretched and thinned. This is called an **aneurysm** [an-yuh-riz-uhm].
- The most common cause of bleeding inside the brain is high blood pressure.
- Some people have defects in the blood vessels of the brain that makes this kind of stroke more likely.
- Other causes of hemorrhagic stroke include: smoking, inflamed blood vessels, which may develop from syphilis, tuberculosis, or other infections, blood-clotting disorders, head or neck injuries, and **cerebral amyloid** [am-uh-loid] **angiopathy** [an-jee-op-a-thee].

Normal blood flow in a healthy artery.

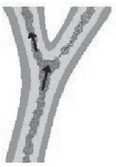


Ischemic Stroke

A blood clot blocking an artery.

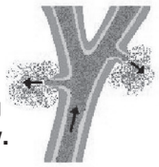


Restricted blood flow in a diseased artery.



Hemorrhagic Stroke

A burst blood vessel disrupting blood flow.



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How is Stroke Diagnosed?

Diagnosis of a stroke is based on the patient's medical history, physical exam, and diagnostic studies.

If stroke is suspected, the doctor may order an MRI or computed **tomography** [tuh-mog-ruh-fee] scan, often called a CT, to determine whether the stroke was caused by a clot or from bleeding inside the brain.

If artery disease or narrowing of one of the large arteries in the neck (the carotid arteries) is suspected, the following additional tests may be done:

- **Ultrasound** study of the arteries in the head and neck.
- **Magnetic resonance angiography** [an–jee-og-ruh-fee], often called an MRA, scan to evaluate the flow of blood through the blood vessels.
- **Angiogram**, which is a special type of x-ray picture that shows specific arteries.
- If evidence shows that the stroke is caused by a clot that formed in the heart, the doctor may order: a chest X-ray, an **EKG** - a simple test that traces the electrical activity of the heart, an echocardiograph [ek-oh-kahr-dee-uh-graf] - a painless test that allows doctors to see if your heart is functioning normally, or another heart imaging test.
- Other laboratory tests may be done to see if other conditions are present, check the person's overall health and see if the patient's blood clots too easily.

How is Stroke Treated?

Fast medical treatment may prevent life-threatening complications, more widespread brain damage and is critical to ensure the best recovery.

If emergency treatment is obtained within the first few hours after symptoms begin, some people with a stroke caused by a blood clot may be able to receive a medication to dissolve the clot, helping to increase the chance of a full recovery.

Treatments for stroke may include medication or surgery, and is based on the type of stroke and the seriousness of the symptoms.

The goals of treatment are: to prevent life-threatening complications caused by the stroke, to prevent future strokes, to reduce disability, to prevent long-term complications, and to help the patient get back as much normal function as possible through rehabilitation.

What Happens After a Stroke?

A physical therapist may help the patient regain muscle strength, balance, or the ability to walk.

INFORMATION ABOUT STROKE FOR PATIENTS AND FAMILIES

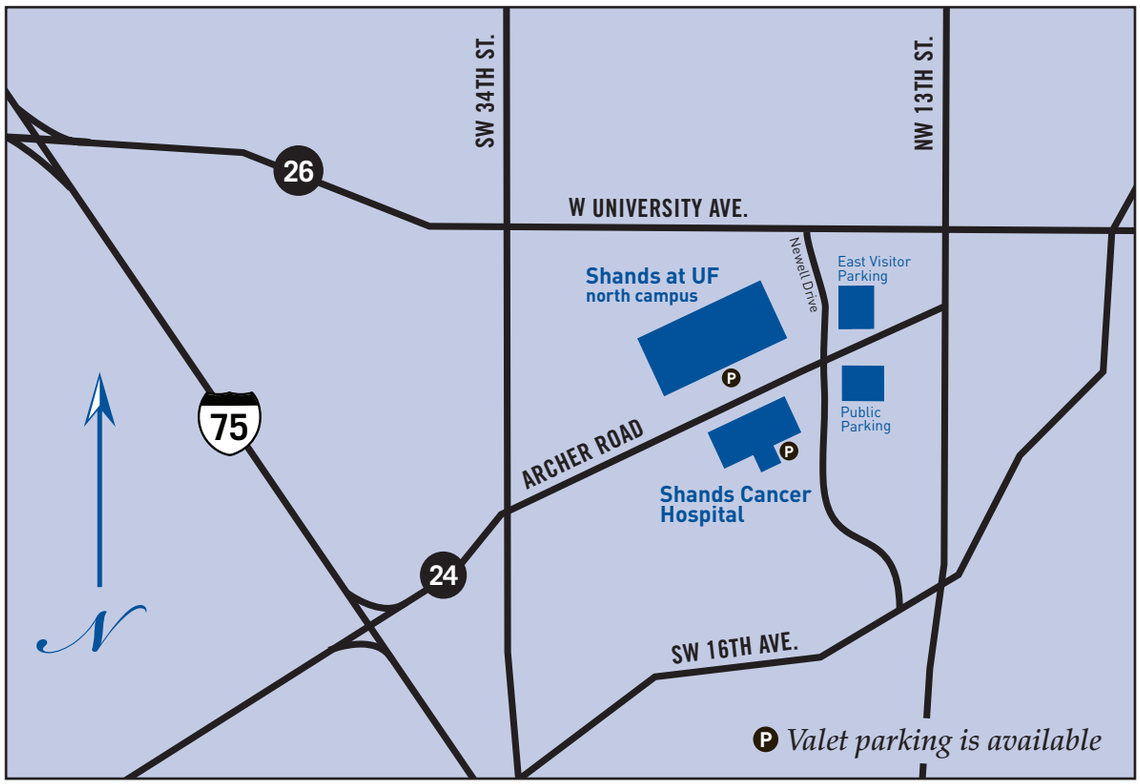
My family member has been transferred to Shands at the University of Florida for treatment of stroke.

Where Can I Stay in Gainesville?

Shands Department of Patient and Family Resources maintains a list of area hotels and motels for your convenience. Please call 352-265-0224 for a copy.

Where will my family member be admitted?

Some patients who are treated for stroke will first be evaluated in the Critical Care Center (emergency room) which is located on the South Campus. Surface parking is available in front of the hospital and valet parking is available in front of the Critical Care Center entrance.

Patients who are hospitalized may be admitted to either the Neuro Intensive Care Unit which is located on the 8th floor or to Unit 10-5 which is located on the 10th floor. Both units are located on the North Campus. Park in the East Garage or at valet parking at the Main Entrance. Take the Patient Elevators up to the unit.

Call 352-265-0111 and ask the operator for your family member's room number, directions and other patient information. Additionally, there are Welcome Centers at the main entrances."