# Treating Hemorrhagic Stroke

A hemorrhagic stroke occurs when there is bleeding in the brain because a weakened blood vessel ruptures.

This bleeding disrupts blood flow. Brain cells don't get the nutrients they need and die, causing a loss of the bodily function those cells support.

"Hemorrhagic strokes occur about 15 percent of the time and they often times are the result of an aneurysm or they can be caused by long-term hypertension. It can cause bleeds into the surrounding area of the small vessels."

If you think you are having a stroke, no matter what type, it's very important to get help quickly so emergency medical teams can tell what kind of stroke you're having and the right type of treatment can begin.

Doctors use tests that allows them to see your brain so they know what kind of stroke you had and how to treat it.

These tests may be a CT or CAT scan, or an MRI. Both of these specialized brain scans can help doctors make the right treatment decision quickly.

"The fastest test done for that is a CT scan of the head, which is pretty reliable in differentiating if this is a hemorrhagic stroke or ischemic stroke."

After a hemorrhagic stroke has been diagnosed, doctors will take steps to stop the bleeding. A hemorrhagic stroke may happen within the brain or on the outer surface.

Bleeding strokes are usually caused by one of two types of weakened blood vessels: an aneurysm - a weakened blood vessel that "balloons" – or an arteriovenous malformation or AVM, a tangle of malformed blood vessels in the brain.

Treatments for ruptured aneurysm vary based on the condition of the patient, where the aneurysm is located in the brain, how big it is and its shape.

One option places a surgical clip at the base of the aneurysm, stopping the bleeding.

Another treatment entails directing a catheter through blood vessels until it reaches the aneurysm in the brain. Once it's in place, the doctor places soft platinum micro-coils into the aneurysm where they form a barrier so blood doesn't leak from the vessel.

Treatment for AVMs depends on the type, location in the brain and symptoms. Options may be medication to manage the AVM or a procedure, like with aneurysms, to block off the abnormal vessels with glue or coils. Some AVM types and locations will require surgery.

A hemorrhagic stroke is a serious medical issue that needs immediate medical attention. It's important to know the symptoms of a stroke so you can get help quickly.

Know these common symptoms of stroke and call 911 if you or someone near you is having one or more of them:



## Treating Hemorrhagic Stroke

Sudden numbness or weakness of face, arm, or leg, especially on one side of the body.

Sudden confusion, trouble speaking or understanding speech.

Sudden trouble seeing in one or both eyes.

Sudden trouble walking, dizziness, loss of balance or coordination.

Sudden severe headache with no known cause.

You can also use the letters in FAST to spot stroke signs:

#### F - Face drooping

Does one side of the face droop or is it numb? Ask the person to smile. Is the person's smile uneven or lopsided?

#### A - Arm weakness

Is one arm weak or numb? Ask the person to raise both arms. Does one arm drift downward?

## S - Speech

Is speech slurred? Is the person unable to speak or hard to understand? Ask the person to repeat a simple sentence.

## T - Time to call 911

If the person shows any of these symptoms, even if the symptoms go away, call 911 and get them to the hospital immediately.

Getting medical help right away can help doctors figure out what type of stroke you're having and may limit the injury and make recovery is easier.

