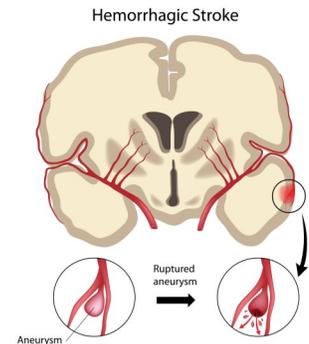


Brain Aneurysm

What is a brain aneurysm?

A brain (cerebral) aneurysm is a bulging, weak area in the wall of an artery that supplies blood to the brain. In most cases, a brain aneurysm causes no symptoms and goes unnoticed. In rare cases, the brain aneurysm can burst, releasing blood into the skull and causing a stroke.

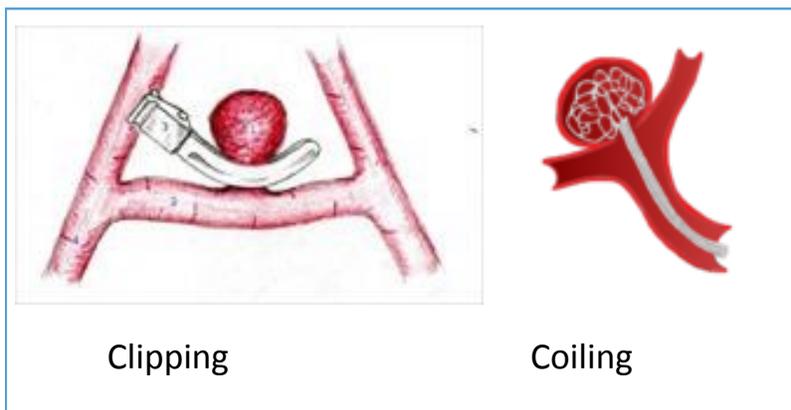
When a brain aneurysm ruptures, the result is called a subarachnoid hemorrhage. Depending on the severity of the hemorrhage, brain damage or death may result.



How is it treated?

Your doctor will work with you on deciding the best treatment for you. Things that will determine the type of treatment you receive include your age, size of the aneurysm, any additional risk factors, and your overall health. The following procedures are used to treat brain aneurysms:

- **Endovascular embolization or coiling:** During this procedure, a small tube is inserted into the affected artery and positioned near the aneurysm. Soft metal coils are then moved through the tube into the aneurysm, filling the aneurysm and making it less likely to rupture. This procedure is less invasive than surgery, but still involves risks, including rupture of the aneurysm.
- **Surgical clipping:** This surgery involves placing a small metal clip around the base of the aneurysm to isolate it from normal blood circulation. This decreases the pressure on the aneurysm and prevents it from rupturing. Whether this surgery can be done depends on the location of the aneurysm, its size, and your general health.

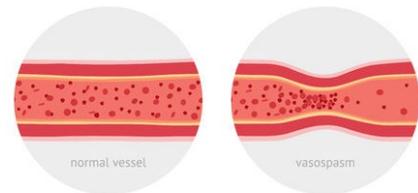


Subarachnoid Hemorrhage (SAH)

Subarachnoid hemorrhage is usually caused by an aneurysm that ruptures or bursts. Your treatment after a SAH includes hospitalization, intensive care and close monitoring of the pressure in your brain, neurologic status and vital signs. You may also need treatment to prevent the aneurysm from bleeding again. We will also monitor you for other conditions that may result from your SAH, including:

Vasospasm or narrowing of the arteries

- This may occur up to 21 days after an aneurysm bleeds, but the risk decreases after 14 days. You may need to stay in the ICU during these first 14 days. Vasospasm comes from irritation of the blood vessels as a result of your SAH. Vasospasm causes the blood vessels to clamp down, and decreases the flow of blood through them. This condition can cause other strokes and can be fatal if not treated.
- During your stay, you will require close monitoring, frequent neurologic checks and will require treatment if vasospasm occurs. Some additional things you may need during your stay include medication called nimodipine, transcranial dopplers and IV fluids.



Hydrocephalus or fluid buildup in the brain

- Sometimes the blood in your brain after a SAH can block the pathways that allow the cerebral spinal fluid (CSF) to circulate. CSF is a fluid in your brain that cushions and protects the brain.
- The blockage of CSF after a SAH can cause a buildup of fluid in spaces in your brain called ventricles. This is called hydrocephalus. Hydrocephalus can cause increased pressure in your brain that can lead to damage.
- To treat hydrocephalus, you may need a device to monitor brain pressure and drain off extra brain fluid. This device is called an external ventricular drain (EVD). An EVD is a catheter that is placed by a neurosurgeon into the ventricle or fluid space in the brain. This allows for drainage of the extra fluid and monitoring of your brain pressure.

