# Subarachnoid Hemorrhage (SAH)

# What Is a Subarachnoid Hemorrhage?

A subarachnoid hemorrhage occurs when an artery located on the outer surface of the brain ruptures. allowing blood to leak into the fluid-filled space between the brain and the skull. The cause is often a ruptured cerebral aneurysm, a weakened area on an artery that bulges, fills with blood, and bursts open. A bleeding

aneurysm is considered a medical emergency and immediate treatment may be necessary. Physicians will consider a variety of factors, including the cause and location of a bleed, when determining the best treatment plan.

Cerebral aneurysm

# Subarachnoid Hemorrhage Treatment

Swift medical treatment is needed because the brain relies on a constant supply of blood for the oxygen and nutrients it needs to survive. Treatment options may include the following:

## Flow Diversion Devices are flexible mesh tubes (stents) placed within affected vessels. Stents work to redirect blood

flow away from aneurysms.

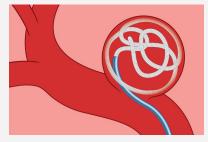




Surgical Clipping is an open surgical procedure in which blood flow to an aneurysm is cut off by placing a small clip at its base.

Endovascular Coiling is a common endovascular procedure used to treat both unruptured and ruptured brain aneurysms. A minimally

invasive treatment, embolization blocks blood flow to problem areas. To reach an aneurysm, a catheter (tube) is inserted through an incision in the femoral artery at



the groin or radial artery at the wrist and guided towards the brain. Fluoroscopy (a type of x-ray) is used to track the catheter through the arteries. Once in position, soft platinum coils are pushed through the tube and released into the aneurysm. The tiny coils fill the space and induce clotting to cut off blood flow to the affected site. Intracranial stents may also be used in conjunction with endovascular coiling (stent-assisted coiling).

# How a Stroke May Affect the Brain

The brain is divided into two nearly identical halves called hemispheres (left and right), with each hemisphere consisting of four lobes (frontal, temporal, parietal, and occipital). Areas within each lobe control

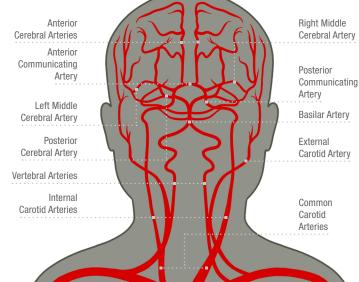
different mental and/or physical functions. Damage to the left side of the brain primarily affects the right side of the body, while damage on the right side of the brain primarily affects the left side of the body.

### **LEFT BRAIN FUNCTIONS**

- · Control of right side of the body
- · Problem solving, knowledge, facts
- · Numbers and letters
- · Understanding words

#### **EFFECTS OF STROKE**

- · Weakness on right side of the body
- · Problems seeing objects to the right
- · Communication problems
- · Slow, cautious behavior
- · Memory loss
- · Behavior changes



#### **RIGHT BRAIN FUNCTIONS**

- · Control of left side of the body
- · Creativity, imagination, intuition
- Shapes and symbols
- · Recognizing emotions

# **EFFECTS OF STROKE**

- · Weakness on left side of the body
- · Problems seeing objects to the left
- · Problems with depth perception
- · Difficulty with concentration
- · Impulsive behavior and poor judgment

