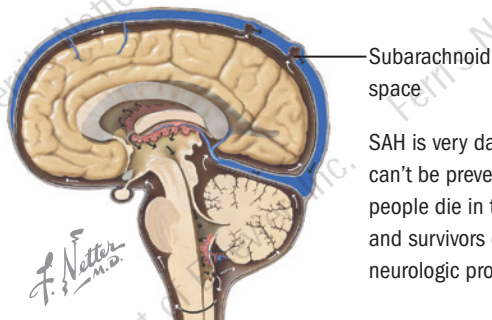
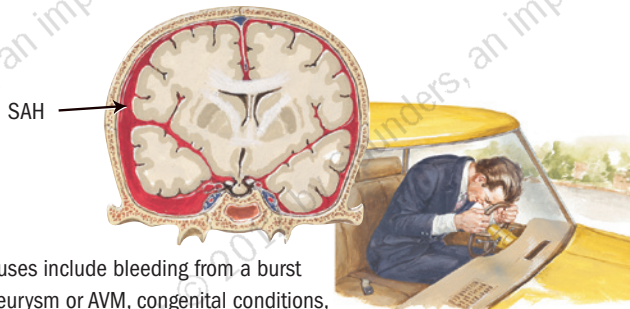


# MANAGING YOUR SUBARACHNOID HEMORRHAGE

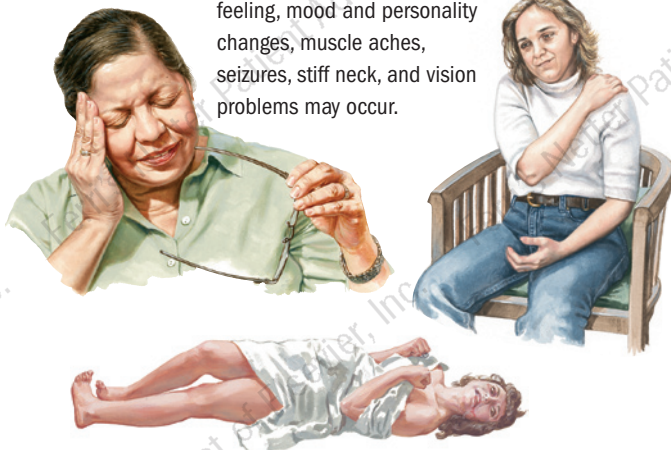


SAH is very dangerous but most can't be prevented. About half of people die in the first 6 months, and survivors can have major neurologic problems.

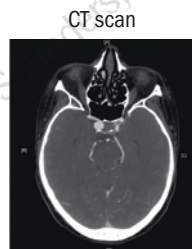


Causes include bleeding from a burst aneurysm or AVM, congenital conditions, and head injuries. Smoking, cocaine use, alcohol, painkillers, and birth control pills have been related to SAH.

SAH causes the "worst headache ever." Loss of movement or feeling, mood and personality changes, muscle aches, seizures, stiff neck, and vision problems may occur.



Your doctor does a physical examination and orders head CT and additional tests.



## What Is a Subarachnoid Hemorrhage?

Subarachnoid hemorrhage (SAH) is sudden bleeding into the space that's between the brain and the middle membrane covering the brain. It's very dangerous. Up to 10-15% of people die before reaching the hospital. As many as 40% die in the first week. About half die in the first 6 months. Also, more than one-third of survivors have major neurologic problems.

People older than 50 and women have higher risks of SAH. Because finding aneurysms that haven't burst in people without symptoms is hard, most SAHs cannot be prevented.

## What Causes an SAH?

Causes include bleeding from a burst aneurysm or arteriovenous malformation (AVM), congenital conditions, and head injuries. Injuries result from falls in elderly people and motor vehicle crashes in younger people. Smoking, cocaine use, alcohol, using painkillers for a long time, and birth control pills have been related to aneurysmal SAH. High blood pressure (hypertension), blood vessel disorders, multiple aneurysms, fatty liver, cancer, and infections are also linked to these hemorrhages. A strong family history of aneurysms may increase SAH risk.

## What Are the Signs and Symptoms of an SAH?

The classic symptom is a sudden, severe headache—the "worst headache ever." Other symptoms include decreased consciousness, loss of movement or feeling, and mood and personality changes including confusion and irritability. Muscle aches, nausea, vomiting, eye pain, light bothering the eyes, seizures, stiff neck, and vision problems may occur.

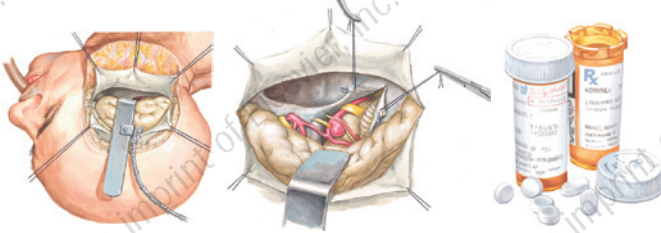
## How Is an SAH Diagnosed?

The doctor makes a preliminary diagnosis based on the medical history and physical examination, especially of the nervous system and eyes. Imaging studies and laboratory tests will be immediately done. The first is usually urgent cerebral (head) computed tomography (CT) without contrast. Cerebral angiography, magnetic resonance imaging (MRI), electrocardiography (ECG), and spinal tap may be done if the diagnosis is unclear. People with SAH have blood in their spinal fluid.

Several scales for grading SAHs are available; the most widely used is the Hunt-Hess scale.



Treatment includes surgery, strict bed rest, usually ICU care, and avoiding activities that increase pressure inside the head. Drugs, oxygen, and fluids are given.



**How Is an SAH Treated?**

Treatment aims to reduce pain, swelling, and severity of cerebral vasospasm; relieve nausea and vomiting; prevent seizures and rebleeding; and save lives. Treatment also tries to relieve symptoms and prevent complications such as permanent brain damage (stroke). A medical team is needed. People are usually in an intensive care unit (ICU) in the hospital. Surgery will fix aneurysms, remove large collections of blood, or relieve pressure on the brain. Strict bed rest is critical. Activities that can increase pressure inside the head (bending over, straining) must be avoided. Drugs include stool softeners or laxatives to prevent straining during bowel movements, blood pressure medicines, pain killers, and drugs for anxiety and seizures. Oxygen and fluids are given.



Go to the emergency room or call the emergency number (911) if you have SAH symptoms.

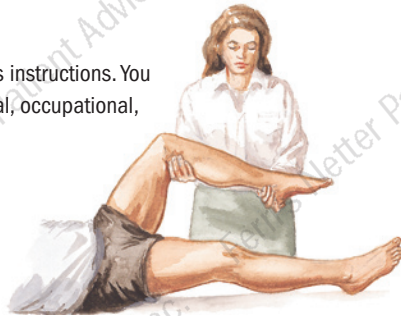
Learn everything you can about your injury. Join a support group if you think that would help.



**DOs and DON'Ts in Managing an SAH:**

- ✓ **DO** go to the emergency room or call the emergency number (911) if you have SAH symptoms.
- ✓ **DO** learn everything you can about your injury. Join a support group if you think that would help.
- ✓ **DO** continue to have follow-up doctor examinations. Follow all your doctor's instructions. You may also need physical, occupational, and speech therapy.
- ⊘ **DON'T** smoke. People who smoke have a worse prognosis.
- ⊘ **DON'T** miss your follow-up doctor visits.

Follow all your doctor's instructions. You may also need physical, occupational, and speech therapy.



Don't smoke. People who smoke have a worse prognosis.

**FROM THE DESK OF**

**NOTES**

**FOR MORE INFORMATION**

**Contact the following sources:**

- American Academy of Family Physicians  
Tel: (800) 274-2237  
**Website: <http://www.aafp.org>**
- American Stroke Association  
Tel: (888) 478-7653  
**Website: <http://www.strokeassociation.org>**