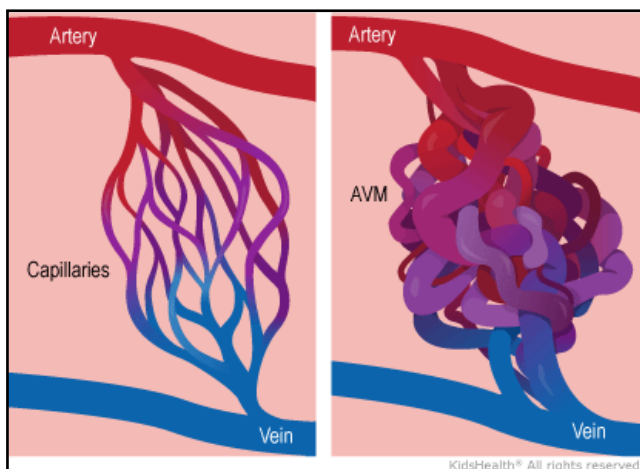


Arteriovenous Malformation (AVM)

WHAT IS AN ARTERIOVENOUS MALFORMATION OR AVM?

A brain arteriovenous malformation (AVM) is a tangle of abnormal blood vessels connecting arteries and veins. It is a direct connection between an artery and a vein, without the usual capillary bed. They can develop anywhere in the body, but most commonly in the brain and spine.



WHAT CAUSES THIS?

The cause of AVMs are unclear. Typically, people are born with the AVM. The most common genetic cause is hereditary hemorrhagic telangiectasia (HHT), also known as Osler-Weber Rendu syndrome. The lesion can change and grow over time. Some AVMs develop after birth, although the cause is unknown.

WHAT TREATMENTS ARE AVAILABLE?

The main goal for treatment is to reduce the risk of bleeding, seizures, and other neurological impairments. The type of treatment will depend on the age of the patient, location and size of the AVM, and will be a joint decision between your neurologist, neurosurgeon, and other medical providers on the team. Treatment options could include surgical removal, stereotactic radiosurgery, endovascular embolization, medical management, or watchful waiting.



Hemophilia and Thrombosis Center

UNIVERSITY OF COLORADO ANSCHUTZ MEDICAL CAMPUS



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Arteriovenous Malformation

WHAT SHOULD WE EXPECT FOR THE FUTURE?

Brain AVMs usually present between ages of 10 and 40 years. About 50 percent of the time, a patient will present to the emergency room after a brain bleed from a ruptured AVM. Other symptoms can include seizures, focal neurological deficit, or headache. About 10 to 20 percent of the time, an AVM is found in a patient without any symptoms, when head imaging was ordered for something else.

Untreated AVMs have a 2-3 percent risk of bleeding each year. There is also an ongoing risk for seizures.

WHAT OTHER TESTS MAY BE NEEDED?

MRI of the brain with a MR angiogram is a common imaging test that is ordered. Other imaging tests can include CT angiogram or a catheter angiogram, which is done by a neurointerventionalist in an angiography suite. Other tests will depend on other signs and symptoms that are associated with the AVM, but may include an EEG, genetic testing, or other tests.

WHAT RESOURCES ARE AVAILABLE?

Hemophilia & Thrombosis Center at CU Anschutz Medical Campus

Our clinic specializes in care for pediatric stroke and other related conditions including arteriovenous malformation. We work with Children's Hospital Colorado and have comprehensive, multidisciplinary services for our patients. Contact us at the details below or see our website here:

medschool.ucdenver.edu/htc

American Heart Association

Go to: www.stroke.org and search for "arteriovenous malformation".

American Association of Neurological Surgeons

Go to: www.aans.org/Patients/Neurosurgical-Conditions-and-Treatments/Arteriovenous-Malformations

We are located in the CU Medicine Building
at the Hemophilia and Thrombosis Center

**13199 E. Montview Blvd., Suite 100
Aurora, CO 80045**

Office Hours: M-F 8 am-4:30 pm



Scheduler: 303-724-6158

Questions for doctors or nurses: 720-777-6895

Website: medschool.ucdenver.edu/htc



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