

# AVMs can be silent. Know the signs.



An arteriovenous malformation (AVM) is a tangle where arteries connect straight to veins, skipping the capillaries that normally slow the blood down. Many cause no symptoms at all and turn up on a scan ordered for something else.

## 01 AVMs can form anywhere blood vessels do



Brain



Lungs



Liver



Spine



Gastrointestinal tract

Where the AVM sits determines what it does, and how it is found.

## 02 Signs of a brain or spinal AVM

- Headache
- Seizure
- Weakness
- Numbness or tingling
- Vision changes
- Balance or coordination problems
- Language changes
- Memory problems or confusion

## 03 AVMs elsewhere show up differently



### Lungs

shortness of breath, low blood oxygen, or a stroke or brain abscess with no clear cause



### Liver

fatigue, shortness of breath on exertion, strain on the heart



### Gastrointestinal tract

bleeding and iron-deficiency anemia

## 04 Sometimes the first sign is a bleed



50%

In about 50% of people with a brain AVM, a sudden hemorrhage is how it announces itself. **That is the case for finding one first.**

## 05 How AVMs are found

Imaging is the only way to diagnose an AVM. There is no blood test for it.



### CT

fast, and the best first look for bleeding



### MRI / MRA

detailed images that show an AVM and where it sits



### Angiogram

maps the vessels and the blood flow through them; the gold standard



### Contrast echocardiogram

the bubble study used to screen for AVMs in the lungs

## 06 When AVMs run in the family



Hereditary hemorrhagic telangiectasia (HHT) is a genetic condition that causes AVMs, most often in the lungs, brain, and liver. It also causes recurring nosebleeds and telangiectasia—the small dilated blood vessels that appear on the lips, fingertips, and inside the nose.

**HHT is inherited. A parent who has it has a 50% chance of passing it to each child.**

An AVM plus nosebleeds, or an AVM plus a family history, is a reason to ask about HHT. Screening finds AVMs in the lungs and brain before they bleed.

Know the signs. Ask the question.  
Get screened. Remain visible.

[curehht.org](http://curehht.org) · [taafonline.org](http://taafonline.org)

#AVMAwarenessMonth #HHT



The Aneurysm and  
AVM Foundation