

Venous Malformations

A venous malformation (VM) is a cluster of unnecessary veins.



What are venous malformations?

Venous malformations (VMs) are enlarged, abnormally formed veins. They are present at birth (congenital), but sometimes cannot be seen until later in childhood, adolescence or adulthood. VMs are slow growing and grow as your child grows. They do not go through a rapid growth phase. VMs are usually only in 1 part of the body.

What do they look like?

VMs appear as a blue or purple soft mass. They will often swell when below the heart or when pressure increases, like when a child cries. VMs go back to their original size when a person is at rest or has the area elevated.

What causes VMs?

Some VMs are caused by a genetic change (mutation). It is not clear what causes the genetic change. There is no known connection to foods, medicines or other things in the environment during pregnancy. VMs affect boys and girls equally.

Some VMs are related to a genetic change (mutation) in a gene called PIK3CA. This is called a mosaic change because only the cells in the VM are affected. The change is not seen in other cells elsewhere in the body.

How are they diagnosed?

Vascular Anomalies physicians can usually diagnose a VM by examining your child. VA physicians also use imaging tests to see the extent of the VM and confirm the diagnosis. These tests can include MRI (magnetic resonance imaging), CT (computed tomography) scans, a Doppler ultrasound study or angiogram.

1 of 2

To Learn More

- Vascular Anomalies Clinic
206-987-4606
- Ask your child's healthcare provider
- seattlechildrens.org

Free Interpreter Services

- In the hospital, ask your nurse.
- From outside the hospital, call the toll-free Family Interpreting Line, 1-866-583-1527. Tell the interpreter the name or extension you need.

How are VMs treated?

Depending on your child's condition, VM treatments may include:

Observation

VMs that are small and not causing a problem using the affected part of the body may not need treatment.

Medicines

Slow blood flow can cause blood clots to form in the malformation. Medicines can decrease the pain and severity, as well as the number of blood clots.

Compression

A tight-fitting compression stocking, glove or sleeve can be worn to slow the growth of a VM on an arm or leg. Compression garments do not cure venous malformations, but can help with pain and mobility. You can read more in our handout "Compression Garments: Wear and Care" seattlechildrens.org/pdf/PE1840.pdf.

Sclerotherapy

With sclerotherapy, a doctor injects a solution into the VM to help it shrink. Sclerotherapy can relieve pain, reduce the size of a VM by up to 80% and reduce the purplish color. Some children need this several times to fully decrease the size of their VM. You can read more in our handout "Sclerotherapy" seattlechildrens.org/pdf/PE1595.pdf.

Glue Embolization Surgery

Many VMs can be partially or completely removed with surgery. Glue embolization is a procedure developed by our Vascular Anomalies team to increase the success of surgery. In this procedure, a small amount of special glue is injected into the VM before to surgery. This makes the VM harden without harming the tissue around it and allows the surgeon to remove the VM more easily.