

Vascular malformations are congenital vascular anomalies of the arteries, veins, capillaries and/or lymph vessels. Commonly referred to as an abnormal mass of blood vessels that are interconnected in a disorderly manner.

As blood vessels run all through our entire body, vascular malformations can be found in any part of our system. Some vascular malformations are arterial dominant and fast growing due to high-pressure blood flow, while others are vein dominant and have low blood pressure. Vein dominant vascular malfunctions develop more slowly and are more insidious.

Vascular malformations can grow and cause local symptoms such as compression of surrounding tissues which results in pain in the limbs, bleeding in surrounding tissues inside the brain, and tearing skin on the buttocks and limbs. In rare cases, patients may develop a high-flow shunt that puts them at risk for heart failure.

Pink or red patches

Although vascular malformations can be detected in people across all ages, they are believed to start during the foetal stages of growth. Vascular malformations enlarge proportionately with the growth of a child. They do not involute spontaneously and may become more apparent as the child grows.

Some parents may find the abnormal mass (usually a patch of pink, red or salmon-coloured capillaries) in the face or limbs of their toddlers. Or they may appear as bluish lumps that are compressible and can be found in different parts of the body.

The more threatening ones are located inside the body and can be found anywhere, as long as there are blood vessels. Most of them go undetected until they cause symptoms. A common undetected site is in the brain and when the malformation starts bleeding, the symptom clinically resembles that of a stroke.

Warning Signs

Consult a vascular specialist if you experience the following symptoms:

- Bluish or reddish lumps under the skin that pulsate or have a vibratory sensation
- Recurring headaches (vascular malformation in the brain)
- Visual impairment (vascular malformation in the brain is compressing on surrounding nerves)
- Pain in the limbs (vascular malformation inside the muscle)

Treatment methods

Treatment for vascular malformations varies according to the type of the malformation. Factors such as the predominant blood vessel (artery or vein) where the malformation is found, its size, and location in relation to surrounding tissues as well as its role in forming the blood supply to neighbouring organs, need to be taken into consideration. If it is on the face or limbs, the cosmetic aspect also has to be assessed.

- Laser therapy is effective for capillary malformations or port wine stains, which tend to be flat, violet or red patches on the face.
- Arterial, venous and lymphatic malformations are often treated by embolization, a technique that involves injecting chemicals such as tissue glue or sclerosants (clotting medication) to block the blood flow into the malformation, making it shrink and stopping its growth.
- Surgery may also be performed to remove the malformation completely

- **Patients with complex cases should visit a multi-disciplinary vascular anomalies clinic where different specialists can work on a comprehensive treatment plan for each individual.**