

Birthmarks and Vascular Anomalies

What Are Birthmarks and Vascular Anomalies?

Birthmarks and other types of skin anomalies occur when blood vessels (arteries, veins, lymphatic vessels or capillaries) develop abnormally. Birthmarks are relatively common, occurring in approximately 10 percent of all babies.

Most birthmarks are harmless, but some are more serious and require treatment.



Types of Birthmarks and Vascular Anomalies

There are many types of birthmarks and vascular anomalies. Many do not require treatment, and might even disappear over time. The two main types that might require medical attention are hemangiomas and vascular malformations.

Hemangiomas

Infantile hemangioma is a noncancerous (benign) tumor of the blood vessels. Hemangiomas might or might not appear at birth. However, they always become visible within one to four weeks after birth.

Because hemangiomas often appear as a bright red or pink lump, some people refer to the anomaly as a “strawberry mark” or “strawberry birthmark.” Hemangiomas that reach deeper into the skin might appear blue.

Hemangiomas usually occur on the head or neck, but they can occur anywhere on a child’s body, including the internal organs. The tumors first appear as skin discolorations. Later, they become darker and raised. Some hemangiomas exist only on the skin’s surface, while others reach into the skin’s deeper layers, creating a spongy texture.

Vascular Malformations

Vascular malformations are abnormal collections of blood vessels. Unlike hemangiomas, vascular malformations are permanent. They grow as children grow. The most common types of vascular malformation are port-wine stains and telangiectatic nevi.

Port-Wine Stains

Port-wine stains are flat, reddish or purplish birthmarks that usually appear on the face and are visible at birth. Like hemangiomas, port-wine stains can appear anywhere on the body. As children grow, the skin near a port-wine stain often thickens, and the discoloration becomes more noticeable.

Untreated port-wine stains can become raised, and they bleed easily when injured. When port-wine stains appear near the forehead, cheekbones and eye, Sturge-Weber syndrome might be present. That syndrome is connected with malformations in the blood vessels of the face or brain and with glaucoma (intraocular pressure).

Telangiectatic Nevi

About 30 to 50 percent of newborns have flat, pink spots on their skin. Such spots are called telangiectatic nevi—often referred to as “stork bites” or “angel kisses.” The spots appear on the face and neck, eyelids, upper lip, back of the neck, and forehead.

When babies cry or when their temperatures rise, a nevus might become redder. The spots often become lighter, or even disappear, as children grow older. However, if the nevi don’t disappear over time, they can become more visible. They can even affect the appearance or function of other nearby structures, such as an eyelid or lip.

Other Vascular Malformations

- **Venous malformations** are deep-vein abnormalities. These malformations appear as bluish marks on the skin. Although venous malformations are usually present at birth, some might not become visible until years later.
- **Lymphatic malformations** are masses, typically in the head or neck, caused by abnormally formed lymphatic vessels. These malformations interrupt the normal pathway of the lymph system, causing the vessels to widen. The widening causes swelling, and can also cause tissues and bones to become larger.
- **Arteriovenous malformations (AVMs)** are tangles of blood vessels caused by abnormal connections between arteries and veins. AVMs can appear in one area (most commonly on the head and neck). They can also spread more widely to the chest, stomach or limbs. They also can appear on the organs, particularly the brain.

What Causes Birthmarks and Vascular Anomalies?

Hemangiomas

Hemangiomas result when cells migrate too fast, creating widened capillaries around the tumor and increasing the

size and appearance of the hemangioma. Experts don't know what causes hemangiomas, but they know hemangiomas occur in approximately 7 percent of the population. They mainly affect Caucasian children, as well as premature babies and females.

Although most hemangiomas gradually disappear without treatment, others can interfere with a child's ability to function. A lesion on the eye, for example, can permanently damage a child's vision. A growth in the throat can affect a child's breathing. Facial hemangiomas can disfigure a child's face. Hemangiomas that occur deeper in organ systems—such as the liver, colon or brain—also require treatment.

Vascular Malformations

All types of vascular malformations occur when blood vessels develop abnormally. Port-wine stains, for example, develop because the affected area of the skin doesn't have the small nerve fibers it needs to narrow the vessels. Telangiectatic nevi occur because of how certain blood vessels form during pregnancy. There is no known genetic cause of vascular malformations.

Because vascular malformations continue to grow as a child grows, treatment is usually necessary to slow down their development and prevent long-term effects. If not treated, many vascular malformations will darken and thicken as a child grows.

Symptoms and Effects of Birthmarks and Vascular Anomalies

Some cases of hemangiomas or vascular malformations can be diagnosed during pregnancy. Craniofacial and plastic surgeons at Gillette Children's Specialty Healthcare offer prenatal consultations. We talk to parents about hemangiomas or other vascular malformations, and teach them about treatment options.

Most birthmarks and skin anomalies are visible at birth, or become visible several weeks after birth. Some are visible in the delivery room or newborn nursery, while others might become visible later.

Birthmarks and Vascular Anomalies Diagnosis and Treatment

At Gillette, we prefer to see infants with skin abnormalities as soon as possible—if necessary, before they leave the hospital nursery. Early exams are especially important if your child has a birthmark on their face or near the nasal passage or eyes.

Many birthmarks and skin abnormalities, such as telangiectatic nevi and certain hemangiomas, don't require treatment and might disappear over time. But they should still be checked out regularly to make sure no rapid growth or change is happening.

If your child needs treatment due to the location or seriousness of a birthmark, our craniofacial and plastic surgeons often use laser therapy. Our program medical director (one of the nation's most experienced craniofacial surgeons) helped pioneer current surgical methods used to remove facial masses. The long-pulse dye laser penetrates the skin and larger blood vessels better than traditional lasers, reducing the abnormalities more completely.

Your child's treatment might also include:

- Medication, including propranolol therapy or steroids (injected or taken by mouth).

- Medicine injected into the vessels to make them shrink (also known as sclerotherapy).
- Treatment that blocks the flow of blood in small blood vessels (also known as embolization).
- Reconstructive surgery.

Integrated Care

If your child has a birthmark or other skin anomaly, our internationally recognized specialists work closely with your family to create a treatment plan that fits your child's unique needs.

Your child will benefit from a multidisciplinary team collaborating to help your child look and feel their best. As part of treatment for a skin anomaly, your child might receive care from specialists in:

- [Craniofacial and plastic surgery.](#)
- [Radiology and imaging.](#)
- [Child life.](#)
- [Psychology.](#)
- [Social work.](#)

Your child's well-being and self-esteem guide every decision we make at Gillette. Our team of specialists will make sure you have the information and support you need, every step of the way.

[Make An Appointment 651-290-8707](#) [Refer a Patient 651-325-2200](#)

This information is for educational purposes only. It is not intended to replace the advice of your health care providers. If you have any questions, talk with your doctor or others on your health care team.

If you are a Gillette patient with urgent questions or concerns, please contact Telehealth Nursing at [651-229-3890](#).