

What are infantile hemangiomas?

Infantile hemangiomas are collections of extra blood vessels in the skin. They are benign (i.e., they are not cancerous) and most often appear during the first few weeks of life. Hemangiomas can look different depending on where they are in the skin.

"Superficial" hemangiomas are bright red and bumpy, often referred to as "strawberry marks" because of their resemblance to the surface of a strawberry. Superficial hemangiomas can begin as small white, pink, or red areas on the skin that quickly change into the more obvious bright red, raised lesions. "Deep" hemangiomas occur under the skin and have a smooth surface, often with a bluish coloration. Some hemangiomas are combinations of superficial and deep lesions. Hemangiomas that are truly present at birth are usually slightly different; these are called "congenital hemangiomas" and typically follow a different course than described below.

TYPICAL COURSE

Infantile hemangiomas follow a fairly predictable course. There is a period of rapid growth/expansion in the first 2-3 months of life, which rarely goes beyond 6 months of age. Deep hemangiomas can sometimes grow longer. Between 6-18 months of age, most hemangiomas begin to slowly improve, a process called "involution." The hemangioma will become less red, greyer, softer and flatter. Improvement in the hemangioma takes many years. About half of all hemangiomas will be considerably better by about 5 years of age. Some others will continue to improve with time. The vast majority of hemangiomas are significantly improved by 10 years of age. Though it is difficult to predict how any individual hemangioma will evolve, it is important to remember this natural course, as most hemangiomas do not require treatment and resolve on their own with time.

RARE CASES

Although most hemangiomas do not cause any problems, there can be rare complications such as bleeding or ulceration (breakdown in the skin of the hemangioma). While many parents worry about hemangiomas "bursting" and bleeding, they usually only bleed if ulcerated. The bleeding may be rapid, but usually only lasts a short time. Bleeding typically stops with gentle, continuous pressure for 15 minutes. Hemangiomas generally do not cause any pain unless they ulcerate.

A minority of hemangiomas can cause more serious concerns: Depending on the location and size of the hemangioma, some may interfere with eating, vision, hearing or breathing, or may be associated with other medical problems. There can also be significant concerns about long-term cosmetic outcomes, especially for hemangiomas on the face.

DOES MY CHILD'S HEMANGIOMA NEED TO BE TREATED?

The decision whether to treat the hemangioma is determined by the age of the patient, size and location of the hemangioma, how rapidly it is growing, and whether it is likely to cause any problems. There are 3 main indications for treatment:

1. A medical complication
2. Ulceration
3. Causing or threatening to cause disfigurement or scarring by distorting the normal shape and size of the affected area of skin

POSSIBLE TREATMENT OPTIONS

LOCALIZED TREATMENTS

TOPICAL BETA-BLOCKER

A topical medication, such as timolol, is applied only to the hemangioma. This can help prevent growth, and sometimes shrink and fade small superficial hemangiomas.

TOPICAL STEROID

Topical steroids can also help prevent the growth of small, thin hemangiomas. However, they aren't as frequently used as timolol (topical beta-blocker), which is usually a more effective option.

STEROID INJECTION

Steroid can be injected directly into the hemangioma to help slow its growth. This works best for smaller, localized hemangiomas.

SYSTEMIC TREATMENTS

PROPRANOLOL

Propranolol is a medication given by mouth that is now used commonly for the treatment of problematic hemangiomas. It has been used for many years to treat high blood pressure. It must be used with caution because it can cause a drop in blood sugar if the baby taking it does not eat regularly. It also may cause a drop in blood pressure or heart rate. Close observation with your doctor is necessary.

ORAL STEROIDS

Oral steroids have been largely replaced by safer and more effective options, but are still used in select cases, which will be determined by your doctor.

OTHER TREATMENTS

LASER TREATMENT

Lasers may be helpful to stop bleeding hemangiomas or to help heal ulcerated hemangiomas. They may also help to remove some of the redness or residual textural change that may be left behind after the hemangioma improves.

SURGERY

Surgery is usually reserved for smaller hemangiomas that are in an area where problems may arise or for small hemangiomas that ulcerate. Surgery can also be used to repair residual cosmetic defects such as excess skin or scarring. Because surgery will always leave a scar (and because most hemangiomas get better with time), early surgery should be reserved only for a small minority of cases.

For more information, visit:

www.hemangiomaeducation.org



The Society for Pediatric Dermatology
8365 Keystone Crossing, Suite 107
Indianapolis, IN 46240
(317) 202-0224
www.pedsderm.net

The Society for Pediatric Dermatology and Wiley-Blackwell Publishing cannot be held responsible for any errors or for any consequences arising from the use of the information contained in this handout. Handout originally published in *Pediatric Dermatology*, Vol. 32, No. 1 (2015).

Contributing SPD Members:

Brandi Kenner-Bell, MD
Amjad Khan, MD
Liborka Kos, MD

Committee Reviewers:

Andrew Krakowski, MD
Aimee Smidt, MD

Expert Reviewer:

Ilona Frieden, MD