

# Capillary Hemangioma

## WHAT IS A CAPILLARY HEMANGIOMA?

A capillary hemangioma ("strawberry" birthmark) is a benign (non-cancerous) tumor consisting of an abnormal overgrowth of tiny blood vessels. Capillary hemangiomas may not be present at birth, but appear within the first 6 months of life. They usually grow fast up to the age of 12 months and then they begin to decrease in size between 12 and 15 months of age. Most regress nearly completely by 5 or 6 years of age. Capillary hemangiomas are more common in premature infants and in girls.



**Fig. 1:** A capillary hemangioma is an abnormal overgrowth of blood vessels that is sometimes referred to as a "strawberry" birthmark.

## WHERE ON THE BODY DO CAPILLARY HEMANGIOMAS OCCUR?

Capillary hemangiomas can be found anywhere on the body. Eye involvement includes eyelids, the eye surface called the conjunctiva, and the eye socket or orbit.

## WHY DO CAPILLARY HEMANGIOMAS ON THE EYELIDS CAUSE VISION PROBLEMS?

Capillary Hemangiomas of the eyelid can cause decreased vision, also known as amblyopia, by two mechanisms. First, as the lesion grows, it can press on the surface of the eye. This causes distortion and loss of focus, known as astigmatism and the baby may develop refractive amblyopia. Second, if the



lesion causes the eyelid to droop significantly (ptosis) to the extent that it blocks vision in the eye, this can result in occlusion amblyopia.

If amblyopia develops in the affected eye, it can be treated with glasses and/or occlusion therapy using patches or atropine drops.

## **HOW DOES A CAPILLARY HEMANGIOMA IN THE EYE SOCKET CAUSE VISION PROBLEMS?**

A capillary hemangioma in the eye socket (the area around the eye called the orbit) can put pressure on the eye and result in amblyopia as described above or can impair the eye movement and cause strabismus. It can also press on the optic nerve which may cause optic nerve atrophy. Any of these conditions may damage vision.

## **DO ALL CAPILLARY HEMANGIOMAS AROUND THE EYE NEED TO BE TREATED?**

No. The majority of capillary hemangiomas around the eye do not require treatment. They are simply monitored for the development of vision problems. Treatment is needed only if there is a threat to vision.

## **HOW ARE CAPILLARY HEMANGIOMAS TREATED?**

Capillary hemangiomas can be treated in a variety of ways depending on the location of the hemangioma, its severity, and whether or not it is causing vision problems.

Propranolol- is a medication used for heart disease belonging to the beta blocker family and is now also the first line of treatment for hemangiomas. Usually it is taken orally and has a very favorable safety profile. Monitoring of the heart rate and blood pressure at the beginning of treatment is sometimes required and may include a brief admission to the hospital. In some cases, if the hemangioma is superficial, small and thin, a beta blocker eye drop like Timolol (used in glaucoma) can be applied on the skin lesion.

Steroid medications can also be used to stop the progression of hemangiomas. Depending on the size and location of the hemangioma, steroids may be prescribed by mouth, injected directly into the hemangioma, or applied to the skin surface of the hemangioma. Steroid medications can have undesirable side effects including delayed physical growth, cataract, glaucoma and central retinal



artery occlusion.

Laser treatments can sometimes be used on superficial hemangiomas to prevent growth, diminish their size, or lighten their color.

Traditional surgery to remove hemangiomas around the eye is generally reserved for small, well-defined hemangiomas that are located under the skin surface.

### **HOW LONG DOES IT TAKE FOR THE CAPILLARY HEMANGIOMA TO GO AWAY?**

Capillary hemangiomas typically take several years to regress. The involved skin may retain a red color or may be slightly puckered in appearance or may look perfectly normal depending upon how completely the hemangioma resolves.

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