

About Topical Timolol Maleate for Infantile Hemangiomas

Hemangioma, Vascular & Lymphatic Malformations Clinic: HVLM Clinic

What is infantile hemangioma?

- » A *benign* (not caused by cancer) tumor usually found on your skin. It is made of a dense tangle of blood vessel cells.
- » The most common benign tumor that happens in 1 out of 10 infants
- » Most can't be seen at birth but show up in the first 4 to 6 weeks of a child's life; all will be seen by six months of age
- » Most do not need treatment

What is timolol?

- » Timolol is a medicine for the eye that has been used for more than 30 years. It is used to treat babies and children with glaucoma (high eye pressure)
- » Timolol is in the same class of drugs (beta-blockers) like propranolol, which is used to treat hemangiomas
- » Timolol was first used to treat hemangiomas in 2010
- » Timolol can help treat small, superficial (not deep) and less raised hemangiomas that do not get thicker as they grow
- » Timolol is not FDA approved for use in infantile hemangiomas but is sometimes prescribed for off-label use (used for another purpose) in babies with hemangiomas
- » The response is gradual and modest as compared to propranolol

How is timolol used?

- » Used on the top of the skin of the hemangioma
- » You may be told to use one drop two or three times daily
- » For large hemangiomas, you may be told to use it on different spots of the hemangioma in a rotation, as one drop will not cover the whole hemangioma effectively
- » If you have more than one hemangioma, you may be told to use it on different hemangiomas by rotation so you don't overdose (use too much)
- » Timolol comes as a liquid eye drop or gel in 0.25% or 0.5% strength

What are the side effects of timolol?

- » In the largest study to date of 731 babies published in *The Journal Pediatrics* in 2016, side effects were described in 3.4% of babies with skin irritation being the most common
- » Ulceration (breaking open) of the hemangioma can happen while on timolol
- » Very rarely, the medicine can soak through the skin (absorption) and lead to problems like wheezing, lowered blood pressure, blood sugar or heart rate

Are there any special requirements for taking timolol?

- » It is a prescription medicine
- » Your doctor will decide if your baby should use this medicine and for how long
- » Your doctor will decide how often to see your baby in clinic
- » The cost of the medicine may or may not be covered by your insurance company

Are there any special precautions with timolol?

- » It is best to not use this medicine if the hemangioma is broken open, is in diaper area, or near the mouth or eye, as there could be higher risk for absorption
- » Follow your doctor's advice carefully to avoid underdosing (using too little) or overdosing (using too much) for a large or multiple hemangiomas