

Tear Duct Blockage in Babies

In some newborn babies one or both eyes become watery and sticky, particularly after a sleep. This is common and usually goes without any treatment.

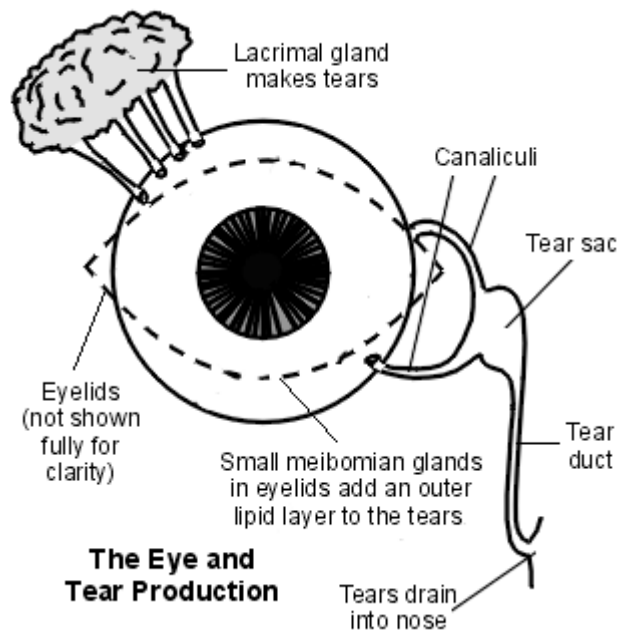
Normal tear production

To avoid damage to the sensitive surface of the eye it needs to be kept moist. The eyes are in constant contact with your eyelids. Without some form of lubrication, the friction created between the two layers of conjunctiva would cause rubbing. To prevent this, and to help remove debris, the eye produces a tear film. The tear film is made up from three layers - the main middle watery layer, the thin outer lipid (oily) layer, and the thin inner mucus layer.

The watery fluid of 'tears' comes from the lacrimal glands. There is a lacrimal gland just above, and to the outer side, of each eye. The lacrimal glands constantly make a small amount of watery fluid which drains on to the upper part of the eyes. When we blink the eyelid spreads the tears over the front of the eye.

Tiny glands in the eyelids (meibomian glands) make a small amount of lipid (oily) liquid which covers the outer layer of the tear film. This layer helps to keep the tear surface smooth and to reduce evaporation of the watery tears.

The tears then drain down small channels (canaliculi) on the inner side of the eye into a tear 'sac'. From here they flow down a channel called the tear duct (also called the nasolacrimal duct) into the nose.



What causes the blocked tear duct in babies?

Eyes can become watery either because you make too many tears (for example crying), or because the tear duct is blocked. The usual cause of a watering eye in a newborn baby is a delay in the normal development and opening of the tear duct. It is just that it is not quite developed fully at the time of birth. About 1 in 5 newborn babies have a tear duct that is not quite fully developed. It can affect one or both eyes.

Rarely, other abnormalities of the eye or eyelids can cause a blockage of tears in babies.

How does it get better?

In time, the tear duct usually finishes developing and the problem goes. This typically happens within a few weeks after birth. In some babies it can take several months. So, you will normally be advised just to 'wait and see' if the problem goes. If the tear duct is still blocked by about 12 months of age, your doctor may refer your baby to an eye specialist to consider 'probing' the tear duct. This is a minor procedure where a very thin instrument is passed down the tear duct to open up the duct. This procedure is usually successful in curing the problem.

Sometimes referral to a specialist may be done sooner if the problem is particularly troublesome, or if a rare abnormality is suspected to be the cause.

Is it serious?

Usually not. A typical case is as follows: tear production in newborn babies may take a week to start, so you may not notice watery eyes at first. You may then notice one or both eyes becoming watery. The baby is usually not bothered. Sometimes after a sleep the affected eye looks sticky. You may have to wipe away some 'glue-like' material. The eyeball looks healthy and white. After the problem seems to have gone, if the child has a cold, the watery eyes may return for the duration of the cold. This is because the newly opened tear duct may become blocked by mucus.

What should be done?

Usually nothing, as it normally goes away without treatment. If gluey material develops then wipe it away with some moistened cotton wool. Ideally, moisten the cotton wool with sterile water (cool water that has previously been boiled). It may help if you massage the tear duct four or five times a day. To do this use gentle pressure on the outside of the nose. This may help to clear pooled tears in the upper part of the blocked duct. It may also help the tear duct to develop.

Possible problems

Slight redness of the eyeball may come and go. This is due to mild inflammation, and no treatment is needed. Sometimes this may develop into a conjunctivitis (infection of the outer part of the eye). The eye may then look inflamed and red. This is not usually serious. Antibiotic eye drops are sometimes prescribed to help clear conjunctivitis.

As mentioned, rarely, a watering eye in a baby is due to other eye problems. With the typical problem where the blockage is due to a late-developing tear duct, the eyeball is usually white and the baby is well and not bothered by the watering eye. The following symptoms may indicate a different problem. If they occur, see a doctor:

- If the eye becomes inflamed, angry or red.
- If the baby rubs the eye a lot or seems in pain.
- If the baby does not like to open their eye, or light seems to hurt the baby's eye.
- If the structure of an eye or eyelids does not seem right.

References

- [Young JD, MacEwen CJ](#); Managing congenital lacrimal obstruction in general practice. *BMJ*. 1997 Aug 2;315(7103):293-6.
- [Bashour M](#); Nasolacrimal Duct, Congenital Anomalies; *eMedicine (2005)*

Comprehensive patient resources are available at www.patient.co.uk

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