Tear Duct Blockage in Babies

Tear duct blockage means that there is a blockage of the tiny channels (ducts) that drain tears from the inside corner of the eye into the nose. These tiny channels are known as the tear duct (also called the nasolacrimal duct).

A blocked tear duct is common in babies. The blockage is usually only because the tear duct hasn't had enough time to develop properly. Once the tear duct has fully developed, the problem goes away, often within just a few weeks or months after birth. However, there are some complications to look out for in the meantime.

What is tear duct blockage and what causes it in babies?

About 1 in 5 newborn babies will have a tear duct (nasolacrimal duct) that is not quite fully developed at birth.

The surface of the eye is kept moist by watery fluid (tears). This is really important to prevent any damage to the sensitive surface of the eye. The tears help to remove any dust or dirt from the surface of the eye. The tears are made in glands called the lacrimal glands, which are just above the outside corner of the eye, below the eyebrow.

The lacrimal glands constantly make a small amount of tears which drains on to the eye.

When we blink, the eyelid spreads the tears all over the surface of the eye. Any excess tears drain out of the eye by passing through the small channels of the tear duct (nasolacrimal duct) and into the nose. There are also tiny glands (called meibomian glands) in the eyelids, which make a small amount of oily liquid. This oily liquid also helps to protect the surface of the eyes.

How common is tear duct blockage in babies?

Blockage of the tear duct is quite common in babies and is usually because the tear duct has not completely developed by the time of the birth. The blockage of the tear duct can affect just one eye or both eyes.

Abnormalities of the eye or the eyelids can also cause a blockage of the tears in babies but this is very rare.

What are the symptoms of a tear duct blockage?

A blocked tear duct (nasolacrimal duct) causes the tears to build up on the surface of the eye and this makes the eye watery.

It may take until a week or two after birth before the tear glands (lacrimal glands) start to make tears. Therefore, you may not notice your baby having watery eyes at first. You may then notice one or both eyes becoming watery. Tears build up in the corner of the eye and run down your baby's cheek, even when your baby is not crying. The symptoms may be worse when your baby has a cold, or in cold weather. Your baby is usually not bothered by the watery eyes.
Sometimes after a sleep, the affected eye looks sticky or crusted but the eyeball otherwise looks healthy and white. Slight redness of the eyeball may come and go. This is due to mild inflammation and no treatment is needed. However, this may develop into an infection of the outer part of the eye (conjunctivitis). The eye may then look inflamed and red. This is not usually serious. See separate leaflet called Infective Conjunctivitis for more information.

Infection may also occur in the tear sac, which is where the tears travel from the inner corner of the eye to the nose. This infection is called dacryocystitis and causes redness and swelling between the inner corner of the eye and the nose.

Blockage of the tear duct in babies often resolves within a few weeks of birth, when the tear duct has become fully developed. However, sometimes the tear duct remains blocked for several months or much longer. Occasionally if the blocked tear duct does cause any difficulty for your baby or doesn't get better after about 12 months then your baby may need to see an eye specialist to help resolve the problem.

When should you take your baby to see a doctor?

A watering eye in a baby is (rarely) due to other eye problems. The following symptoms may indicate a different problem. If they occur, take your baby to see a doctor:

- If your baby's eye becomes inflamed, angry or red.
- If your baby rubs the eye a lot or seems in any discomfort.
- If your baby does not seem to want to open his or her eye, or light seems to hurt your baby's eye.
- If you have any concerns about the appearance of your baby's eye or eyelids.

What treatment is there for a tear duct blockage?

The tear duct usually finishes developing and the problem goes away without any treatment. This often happens within a few weeks after birth.

In some babies, it can take several months. So, you will normally be advised just to wait to see if the problem goes away on its own.

Simple massage of the tear duct of your baby can help drain the tears. Use gentle pressure with your finger on the outside of your baby's nose and then stroke downwards towards the point of the nose. This should be repeated regularly (5-10 times) each day. This can help to clear the excess tears that have become blocked. It may also help the tear duct to develop. Most babies will respond to this massaging and then will not need any further treatment.

If your baby's eye seems sticky or crusty then this can be gently wiped away using gauze. Moisten the gauze with sterile water (use boiled water that has then cooled down).

Antibiotic eye drops are sometimes prescribed to help clear conjunctivitis. Infection of the tear sac (dacryocystitis) needs treatment with antibiotic medicine given by mouth.

If the tear duct is still blocked by about 12 months of age, your doctor may refer your baby to an eye specialist. An option is for a specialist to perform a simple procedure where a very thin instrument is passed into the tear duct to open up the duct. The procedure is usually performed as a day case and it is normally very successful.

Sometimes a referral to a specialist may be made before 12 months if the blocked tear duct seems to be causing discomfort for your baby or there are any other concerns about your baby's eyes.

Further reading & references

- Nasolacrimal duct obstruction (nasolacrimal drainage dysfunction); College of Optometrists, March 2016

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