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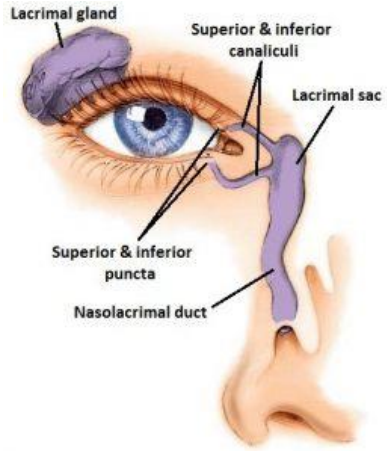
Blocked Tear Ducts

Information for Referrers

Congenital Nasolacrimal Duct Obstruction (also known as a blocked tear duct or CNLDO) is a very common reason for persistent watery eyes (epiphora) and eye discharge in infants, occurring in around 20% in the first few months of life.



What causes a blocked tear duct?

Congenital Nasolacrimal Duct Obstruction is usually caused by incomplete canalization of the duct in utero. This normally proceeds from the ocular end of the duct towards its nasal end. In most cases a thin membrane persists at the nasal (lower) end of the duct.

More rare causes of obstructed tear drainage in children include anomalies of the lacrimal canaliculi or sac or stenosis of the bones around the nasolacrimal duct.

What are the signs of a blocked tear duct?

The patient may have constant or intermittent watering of the eyes and matting of the eyelashes. Mild redness of their eyelids may be present, caused by irritation from constant wetness and / or frequent rubbing and cleaning of their eyes.

Do they cause any eye or vision problems?

The eyes are usually not affected by CNLDO and vision develops normally.

Reduced tear drainage predisposes the conjunctiva to bacterial overgrowth. Infection may be prevented, if tolerated, by regular cleaning of the lids with cooled boiled water or saline. Pressure should be applied over the lacrimal sac (see below) to express any mucous collection and the eye wiped from the nasal towards the temporal side.

Conjunctival swabs for culture and sensitivity and topical or systemic antibiotics are not indicated unless there are signs of secondary conjunctivitis (with conjunctival injection and purulent discharge) or cellulitis of the eyelid.

Liquid paraffin applied to the skin around the eye may help protect from irritation.

Can they clear on their own?

90% of cases of CNLDO will resolve spontaneously by 12 months of age. If symptoms continue past 24 months of age, they are unlikely to resolve spontaneously.

For more information
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Interpreter

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How can it be treated?

CNLDO spontaneously resolves in 90% of children by 12-18 months of age.

Regular massage of the tear drainage structures may help resolve the block. Hands should be cleaned with soap and water and fingernails must not be sharp. A moderate amount of pressure is applied over the lacrimal sac (where the eye-lids meet the nose, refer to picture) in a downward direction for 2-3 seconds, 2-3 times per day.

If massage is unsuccessful surgery may be recommended.

Surgical management of CNLDO

Surgical management of CNLDO involves probing of the nasolacrimal duct under general anaesthesia. Surgical options to enhance and maintain the effect of probing include balloon dilatation at the time of surgery or the placement of silicon tubes for 3-6 months, after which they are removed in clinic or under general anaesthetic. The success rate for these procedures varies from 80-90%. In many cases a repeat procedure will lead to cure.

Atypical or complex tear drainage obstructions will require an alternative surgical approach. Such obstruction may be evident on examination or at the time of probing.

Criteria for referral

- Persistent nasolacrimal duct obstruction beyond 24 months of age
- Associated features including
  - More than 3 episodes of infective conjunctivitis (see above) in 6 months
  - Swelling over the lacrimal sac (at the inner corner of the eye)
  - Light sensitivity
  - Enlargement of the eye
  - Corneal opacity (cloudiness or haze over the pupil).