

## Eyes – blocked tear duct

The eyeball is kept moist and healthy by a thin film of tears that is continuously produced by the lacrimal gland situated underneath the top eyelid. Every time we blink, tears are swept towards the inside corner of eye and drained through two tiny tubes called lacrimal ducts. From there, tears pass into the nasolacrimal sac, then into the nasolacrimal duct to the nose and, ultimately, to the throat for swallowing. A blockage along any point of this tear duct system is known as a blocked tear duct or dacryostenosis. The symptoms include a pus-like discharge. Some babies are born with a blockage (congenital dacryostenosis). A range of conditions and events, including infection and trauma to the nose, can cause acquired dacryostenosis.

### Symptoms

The symptoms of a blocked tear duct can include:

- Watery eye
- Tears running down the face
- Discharge of pus
- Crusted mucus along the eyelashes
- Increased susceptibility to eye infections.

### Dacryocystitis

Trapped tears in the nasolacrimal sac can create the perfect breeding ground for bacteria. An infected nasolacrimal sac is called dacryocystitis. The symptoms include:

- Fever
- Redness, swelling and tenderness beside the bridge of the nose, next to the affected eye.
- In severe cases, the infected sac may form an abscess.

### A range of causes

Some of the causes of a blocked tear duct include:

- **Congenital conditions** – some babies are born with a blockage within the tear duct system, usually the nasolacrimal duct. The thin membrane that seals the nasolacrimal duct in utero fails to open at birth.
- **Chronic nose infections** – chronic sinusitis may irritate the tissues and form scars, which block the tear duct system.
- **Nose trauma** – such as a broken nose. The injured tear duct system may be blocked by scar tissue.
- **Nose polyps** – a polyp is a protrusion growing out of a membranous lining. It looks like a ball on the end of a slim stalk. People with allergies such as hay fever are more prone to nasal polyps. These growths may obstruct the tear duct system.
- **Conjunctivitis** – infection and inflammation of the conjunctiva, which is the thin membrane covering the eye. In rare cases, the tear duct system may become infected and blocked, especially after some viral infections.

### Diagnosis methods

A blocked tear duct is diagnosed using a number of tests, including:

- **Physical examination** – including medical history.
- **Ophthalmic examination** – to check for other possible causes.
- **Particular tests to check for tear drainage** – for example, a special fluid is flushed into the affected tear duct opening. A diagnosis of blocked tear duct is made if the patient can't taste the fluid in their throat.
- **X-ray or CT scan** – taken of the tear duct area (dacryocystogram).

### Treatment options

Treatment for a blocked tear duct depends on the cause, but may include:

- Observation with no intervention. A baby's tear ducts may spontaneously unblock before the age of nine months.
- If the baby's tear duct doesn't unblock by itself, it may be necessary to professionally 'pop' the membrane. This is a small operation that requires a general anaesthetic.
- Deep massage of the nasolacrimal duct for babies may be ordered, but it is difficult to do well.
- Antibiotics, to treat any bacterial infections.
- Surgery, to make a drainage hole from the tear duct system into the nose (dacryocystorhinostomy or DCR). This can also be done by laser.
- Surgical drainage of abscess, if necessary.
- The frequent application of hot compresses.
- Pain-killing medications.

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## Where to get help

- Your doctor
- Eye specialist
- The Royal Victorian Eye and Ear Hospital Tel. (03) 9929 8666

## Things to remember

- The tear duct system drains tears into the nose and throat.
- The symptoms of a blocked tear duct include watering and pus around the eye.
- Causes include nasal polyps and chronic nose infections.
- Treatment may require surgery and antibiotics to treat any associated infections.

This page has been produced in consultation with, and approved by, the Royal Victorian Eye and Ear Hospital. The Better Health Channel is part of the Department of Human Services, Victoria

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