minor surgical treatment is effective in 80% of the children.

Most of the above mentioned treatments are not effective in children more than 2 years of age.

Dacryocystorhinostomy (D.C.R), a surgical treatment can also be done in children, 4 years or older, when their nasal bones are well developed.

## What happens if treatment is not done?

A tender swelling (abscess) at the site of lacrimal sac may develop due to the infection, which may burst and discharge pus.



# Lacrimal Duct Blockage in Children



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## About your tears:

Lacrimal gland in the eyes secrete tears. These tears reach the conjunctival sac, which is located between the eye and the eyelid, through ductules. Tears have an important function, of cleansing the eyes, smoothening the eye surface and preventing it from becoming dry. Lysozyme is a disinfectant present in the tears. It safeguards the eyes from several microbes.

# Block in Lacrimal Drainage System

Most of the tears secreted in the eyes get evaporated. The remaining tears after moistening the eye surface, enter a small opening in the eye lid, the punctum and drains through a small canal into the lacrimal sac and down the naso-lacrimal duct to reach the nose. If there is an obstruction in the duct the tear secretions stagnate in the lacrimal sac causing a block in the lacrimal drainage system.

## Who gets this Lacrimal System block?

This block usually occurs in middle aged people. Children are also likely to get affected. This is due to poor development of lacrimal drainage system prior to birth.

### Signs and symptoms:

 Pooling of tears, stagnation of lacrimal sac contents, wet eye-lids, execessive tear secretion in the eyes.

- In the newborn, if there is a block in the lacrimal drainage system, tears gets stagnated in the lacrimal sac or rolls down the cheeks.
- Stagnation of tears within the lacrimal sac increases the microbial load and causes mucopurulent discharge thus leading to the blockage of the lacrimal drainage system.
- In children the eyes often become red with associated swelling at the sac site. This is followed by infection of the lacrimal sac.

#### **Treatment Methods:**

#### **Medical Treatment (Non-surgical)**

- Massaging the lacrimal sac 4 to 6 times a day, to remove mucopurulent discharge. This may hasten the opening of the blockage. This is usually effective in children less than one year of age.
- If the eyes are red and if there is mucopurulent discharge around the eyelids, antibiotic eye drops can be used.
- Silicon tubes can be inserted into the lacrimal drainage system and kept for a week to remove the block.

#### **Surgical Treatment:**

Probing of the nasolacrimal duct could be done if no marked improvement is found with the medical treatment. General anaesthesia is given and a small probe is inserted vertically into the lacrimal sac and canaliculi to perforate the membranous blockage. This