

THE LACRIMAL SYSTEM AND TEARS



جامعة ساوة

كلية التقنيات الصحية والطبية

قسم البصريات

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Anatomy and physiology

The lacrimal system comprises a secretory component (tear production by the lacrimal gland) and an excretory component (tear drainage by the nasolacrimal system)

Lacrimal gland

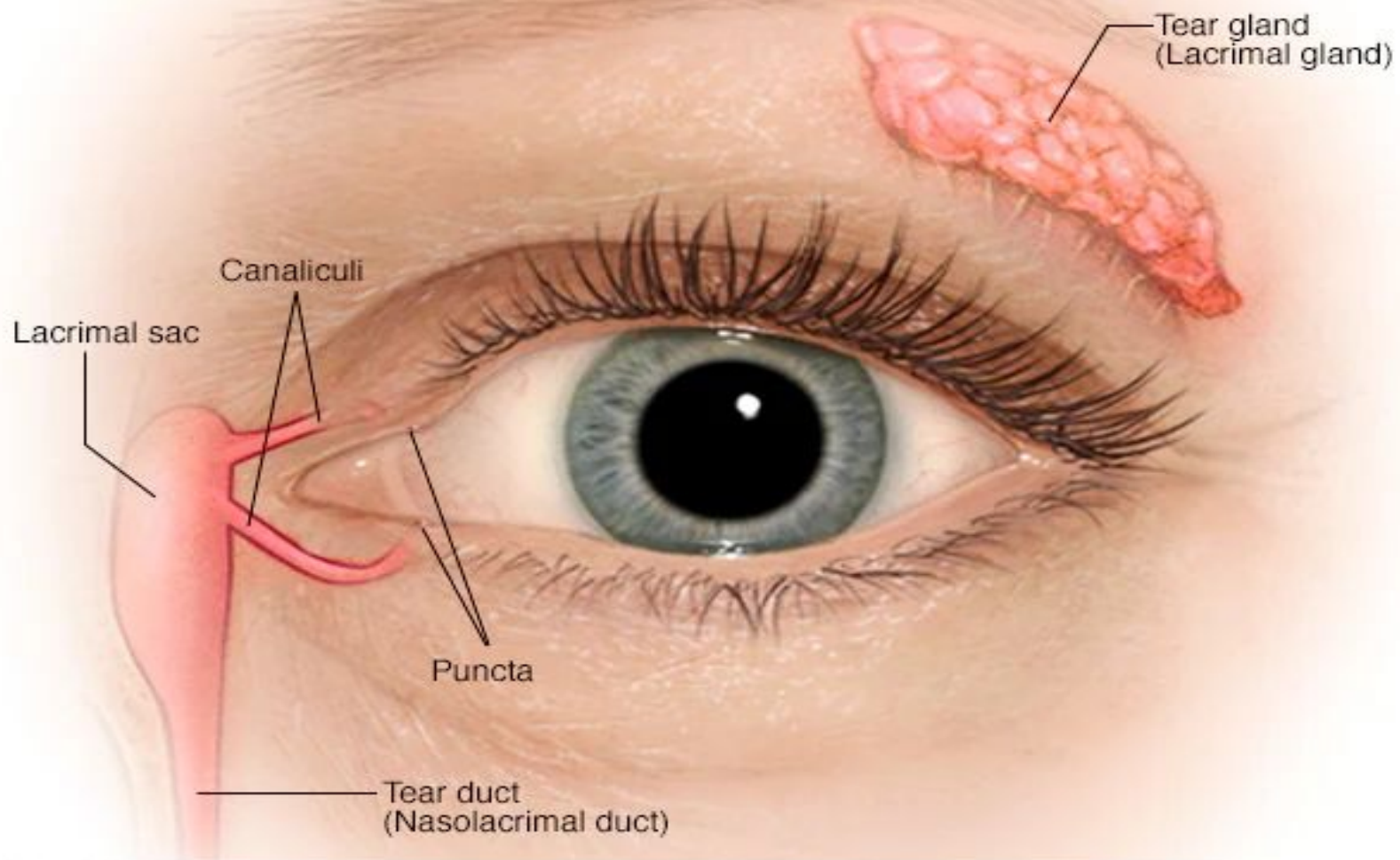
The lacrimal gland Located above each of your eyes, also called a tear gland, that secretes a lubricating film onto the surface of the eye to keep it cleaned and nourished.

Lacrimal glands drain through the tear ducts, and because they secrete fluids directly onto the surface of the eye (and not into the bloodstream), they are considered exocrine glands.

Anatomy of the lacrimal gland

Each lacrimal gland is shaped like an almond and is located above the outer corner of the eye. The lacrimal artery brings the blood supply, and nerve fibers as well as muscle cells help activate the gland and expel fluid. The nerve fibers can be stimulated by neurotransmitters in the body, and can lead the glands to secrete proteins that protect the eye.

Neurotransmitters stimulate nerve fibers activate gland
 secrete proteins



Each lacrimal gland is made up of two parts:

- . The smaller **palpebral lobe**
- . The larger **orbital lobe**

Although the size of a normal lacrimal gland can vary from individual to individual, the glands are usually symmetrical and similar in size in same individual . The lacrimal gland is approximately 2 centimeters.



lacrimal Gland swelling:

lacrimal Gland swelling may be acute or chronic. Acute swelling is caused by a bacterial or viral infection such as mumps, Epstein-Barr virus, gonococcus and staphylococcus. Chronic swelling could be due to non-infectious inflammatory disorders such as thyroid eye disorder, sarcoidosis and orbital pseudo tumor.



Treatment of swollen lacrimal glands at home

Soak the cloth in warm water and remove excess water by wringing it. Use it to clean the eyes and wipe away excess tears from the eyes gently many times a day. Always wash your hands before doing the massage or touching the eyes. Your doctor may **prescribe antibiotic eye drops** if there is an infection





lacrimal cyst

The lacrimal ductal cyst (dacryops) is a **benign epithelial tumor of the lacrimal tissue**, which usually locates in the outer part of the upper eyelid presenting to be an asymptomatic, smooth, mobile and fluctuant swelling.

Tears and tear film

The tear film produced by lacrimal glands consists of a clear fluid that keeps the surface of the eye moist and prevents it from drying out.

