



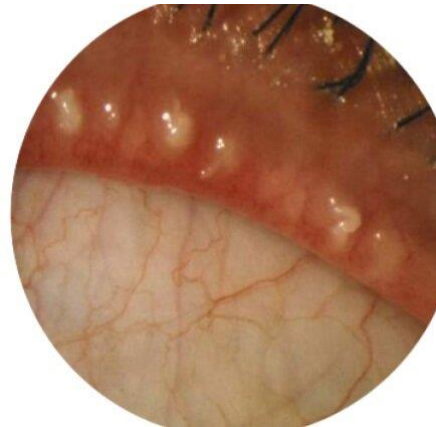
# Eye Infections

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# Hordeolum (Stye)

- Sties are infections of the hair follicles or sebaceous glands of the eyelids.
- There are two types of hordeolums : internal & external
- Internal hordeolums are the result of the inflammation of the Meibomian glands.
- External hordeolums are the result of the inflammation of the eyelash follicles.



## Hordeolum (Stye)

- The infection can have either a viral or a bacterial cause.
- The most common infecting organism is : *staphylococcus aureus*.
- Treatment: first try *warm compresses*; apply the compress for 15 minutes for up to 5 times a day
  - if the stye does not respond within a few days visit an ophthalmologist.

# Hordeolum (Stye)

## Infective

### Cellulitis

### Blepharitis

Antibiotics that might be effective in bacterial sties:

- Systemic antibiotics: **cloxacillin** or **cephalexin**
- Topical antibiotics (ophthalmic drops):  
**sulfacetamide** or **chloramphenicol**
- May use: Topical **corticosteroids**



An abscess is present below the lash line.

# Chalazion

Chalazion



Chronic meibomian gland plugging leads to granulomatous inflammation seen as a yellow-white bump on the inner aspect of the mid-lower lid.

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Chalazion



A nodular lesion is present on the upper eyelid.  
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# MILIA



# Conjunctivitis

- A common external eye problem that involves inflammation of the conjunctiva.
- Common symptoms: diffusely reddened eye with purulent or serous discharge accompanied by itching, smarting, stinging, or a scratching foreign-body sensation.
- Conjunctivitis can be bacterial, fungal, parasitic, viral, or allergic in origin.



# Conjunctivitis

## Allergic conjunctivitis



Allergic conjunctivitis typically presents as bilateral redness, watery discharge, and itching.

## Bacterial conjunctivitis



The discharge of bacterial conjunctivitis is thick and globular; it may be yellow, white, or green.



# Conjunctivitis

- The infection usually starts in one eye and is spread to the other by the hands.
- Most cases of bacterial conjunctivitis are caused by *S. aureus*, *Streptococcus pneumoniae* (in temperate climates), or *Haemophilus aegyptius* (in warm climates).

# Conjunctivitis - Acute Bacterial Conjunctivitis (Pinkeye)

## Treatment:

- Mechanical cleaning of the eyelids and hygienic measures that prevent spreading the infection.
- The deposits should be removed as often as possible with moist cotton swabs or cotton-tipped applicators.
- Antibiotics: Sulfacetamide ophthalmic drop – Polymyxin ophthalmic drop – Chloramphenicol ophthalmic drop.

# Corneal Ulcers

- The initial choice of therapy for bacterial corneal ulcers commonly is based on a Gram stain and clinical impression of the severity of the ulcer.
- Topical antimicrobials for the treatment of bacterial corneal ulcers can be prepared from parenteral antimicrobials or by the addition of parenteral antimicrobials to “fortify” commercially available products.

## Ocular HSV Infections

- Ocular herpes is common, and can be caused by herpes simplex virus or, less commonly, by the varicella-zoster virus.
- Mainly treated with TFT drop (Trifluridine/Triflutimidine) but if re-epithelialization doesn't occur, acyclovir is an alternative.



# Dry eye

**Dry eye syndrome**

**Keratoconjunctivitis sicca**

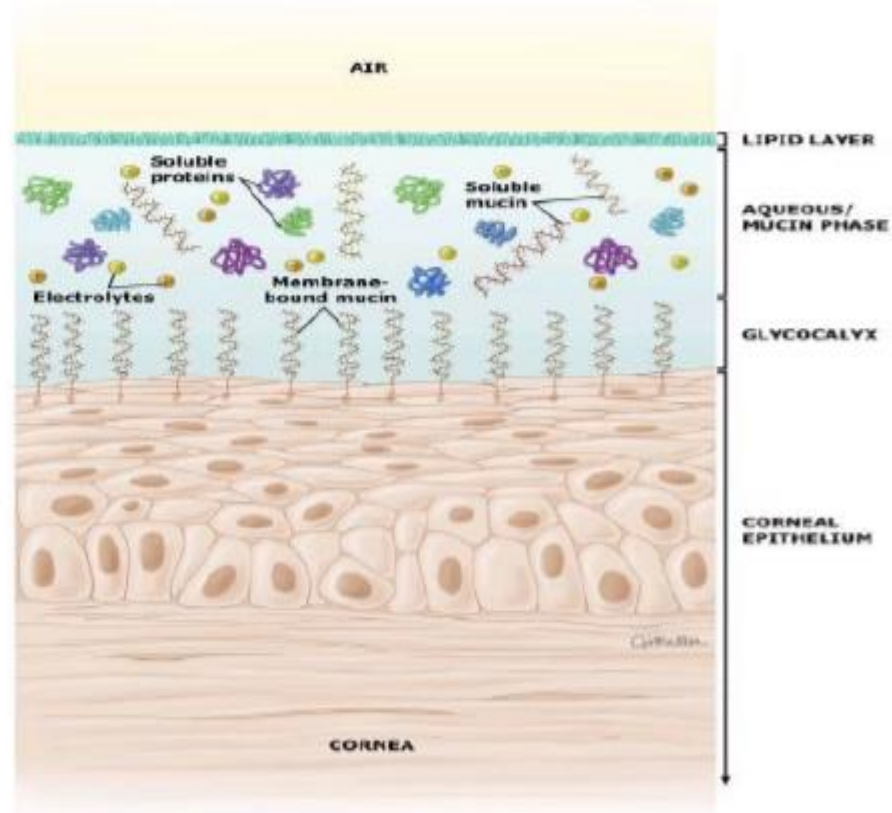
**Dysfunctional tear syndrome**

■ Common eye complaints include:

- Dryness
- Red eyes
- General irritation
- Gritty sensation
- Burning sensation
- Foreign body sensation
- Excessive tearing

Dry eye

### Precorneal tear film



Adapted from: Pflugfelder, SC, Solomon, A, Stern, ME. The Diagnosis and Management of Dry Eye: A Twenty-Five Year Review. Cornea 2000; 19:644.

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# Risk Factors

- **Age**
- **Female gender**
- **Hormonal changes;** primarily decreased androgens
- **Systemic diseases;** Rheumatoid arthritis, sjogren disease, lupus, diabetes mellitus, Parkinson disease
- **Contact lens wear**
- **Systemic medications;** antihistamines, anticholinergics, estrogens, isotretinoin, selective serotonin receptor antagonists, amiodarone, nicotinic acid
- **Ocular medications;** especially preservatives containing
- **Nutritional deficiencies;** lutein, vitamin A deficiency
- **Decreased corneal sensation**
- **Ophthalmic surgery;** especially corneal refractive surgery causing trauma
- **Low humidity environments**



*Thank you*

