

Al- Mustaqbal University College

First stage.  
Department of Optometry(Optics)



جامعة المستنقبيل الاهلي  
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## Bacterial and fungal infections For eye

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### **Fungal eye infections**

Are extremely rare, but they can be very serious. The most common way for someone to develop a fungal eye infection is as a result of an eye injury, particularly if the injury was caused by plant material such as a stick or a thorn. Inflammation or infection of the cornea (the clear, front layer of the eye) is known as keratitis, and inflammation or infection in the interior of the eye is called endophthalmitis. Many different types of fungi can cause eye infections.

### Types of fungal eye infections

Fungal infections can affect different parts of the eye.

- Keratitis is an infection of the clear, front layer of the eye (the cornea).

Endophthalmitis is an infection of the inside of the eye (the vitreous and/or aqueous humor). There are two types of endophthalmitis: exogenous and endogenous. Exogenous fungal endophthalmitis occurs after fungal spores enter the eye from an external source. Endogenous endophthalmitis occurs when a bloodstream infection (for example, [candidemia](#)) spreads to one or both eyes

### Types of fungi that cause eye infections

Many of different types of fungi can cause eye infections. Common types include:

- *Fusarium* – a fungus that lives in the environment, especially in soil and on plants
- [Aspergillus](#) – a common fungus that lives in indoor and outdoor environments
- [Candida](#) – a type of yeast that normally lives on human skin and on the protective lining inside the body called the mucous membrane

[Fungal Diseases](#)

- Types of Fungal Diseases

- Aspergillosis
- Blastomycosis
- Candidiasis
- Candida auris
- Coccidioidomycosis
- C. neoformans Infection
- C. gattii Infection

- Fungal Eye Infections

The symptoms of a fungal eye infection can show up anytime from several days to several weeks after an exposure. Fungal eye infection symptoms are similar to those of other types of eye infections (like those caused by bacteria) and can include:

- Eye pain
- Eye redness
- Blurred vision
- Sensitivity to light
- Excessive tearing
- Eye discharge

### Diagnosis

- 1- small sample of tissue or fluid from eye. be examined under a microscope
- 2- PCR

The treatment for a fungal eye infection depends on:

- The type of fungus,
- The severity of the infection, and
- The parts of the eye that are affected.

Possible forms of treatment for fungal eye infections include:

- Antifungal eye drops
- Antifungal medication given as a pill or through a vein
- Antifungal medication injected directly into the eye
- Eye surgery

### Bacterial Infection

A bacterial eye infection may be the result of trauma, eye surgery, contact lens wear, immune deficiencies, or other diseases that result in bacterial growth.

The two most common bacterial infections of the eye are

- 1- conjunctivitis, commonly known as pink eye.

With bacterial conjunctivitis the whites of the eye turn red due to inflammation. It will also burn and give off a yellow discharge or pus; this can harden on your eyelids and lashes overnight and make your eye difficult to open in the morning that can be treated with antibiotics.

## Bacterial Conjunctivitis

- . Infection of the eye caused by certain bacteria.
- . Can be caused by *Staphylococcus aureus*, *Streptococcus pneumoniae*, *Haemophilus influenzae*, *Moraxella catarrhalis*, or, less commonly, *Chlamydia trachomatis* and *Neisseria gonorrhoeae*.

2-blepharitis, a chronic inflammation of the eyelids.

With blepharitis, the eye becomes irritated, red and tearing.

A bacterial infection is diagnosed through a comprehensive eye exam. Based on the severity of the infection, a sample of the bacteria may be sent to pathology for identification.

Typically treat the eye using topical anti-infective solutions, like an ointment or eye drops. Many infections, like pink eye, are highly contagious, so hand washing is always recommended throughout the day.

Most cases of staph blepharitis are thought to be caused by **Staphylococcus aureus**. This is the bacteria responsible for most staph infections, including food poisoning, other skin infections, and some types of pneumonia. They're commonly found on your skin and inside your nostrils.

***Thank you***