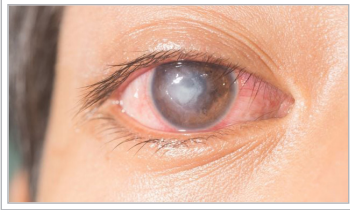


CORNEA & EXTERNAL EYE DISEASES

CORNEA ULCERS

WHAT IS A CORNEA ULCER?



A cornea ulcer is an inflammation of the cornea — the clear, dome-shaped tissue on the front of your eye that covers the pupil and iris. Cornea ulcers may or may not be associated with an infection.

Noninfectious cornea ulcers can be caused by a relatively minor injury, such as from wearing your contact lenses too long or getting a foreign body in the eye. Infectious cornea ulcers can be caused by bacteria, viruses, fungi, and parasites.

WHAT CAUSES CORNEA ULCERS?

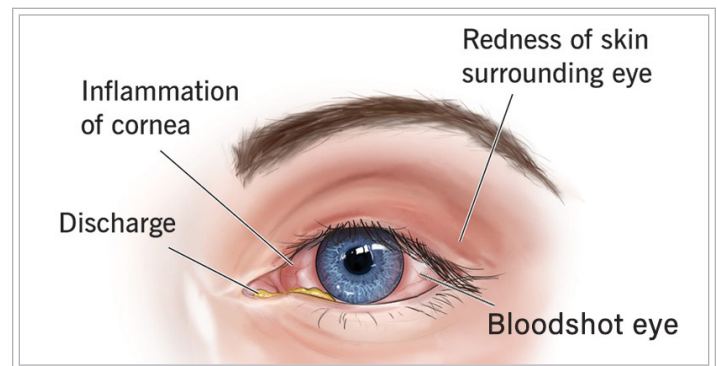
Causes of cornea ulcers include:

- **Injury.** If any object scratches or injures the surface of your cornea, noninfectious cornea ulcers may result. In addition, an injury may allow microorganisms to gain access to the damaged cornea, causing infectious cornea ulcers.
- **Bacteria, fungi or parasites.** These organisms may live on the surface of a contact lens or contact lens carrying case. The cornea may become contaminated when the lens is in your eye, resulting in infectious cornea ulcers. Poor contact lens hygiene or contact lens overwear can cause both noninfectious and infectious cornea ulcers.
- **Viruses.** The herpes viruses — herpes simplex and herpes zoster — may cause cornea ulcers.
- **Bacteria.** Staphylococcus, streptococcus, and pseudomonas are common bacteria involved in cornea ulcers.
- **Contaminated water.** Bacteria, fungi, and parasites in water — particularly in oceans, rivers, lakes and hot tubs — can enter your eyes when you're swimming and result in cornea ulcers. However, even if you're exposed to these organisms, a healthy cornea is unlikely to become infected unless there has been some previous breakdown of the corneal surface — for example, from wearing a contact lens too long.

WHAT ARE THE SYMPTOMS?

Symptoms of cornea ulcers include:

- Eye redness
- Eye pain
- Excess tears or other discharge from your eye
- Difficulty opening your eyelid because of pain or irritation
- Blurred vision
- Decreased vision
- Sensitivity to light, called photophobia
- A feeling that something is in your eye



When to see a doctor

If you notice any of the symptoms of cornea ulcers or infection, make an appointment to see an eye specialist right away. Delays in diagnosis and treatment of cornea ulcers can lead to serious complications, including blindness.

HOW ARE CORNEA ULCERS DIAGNOSED?

Diagnosing cornea ulcers typically involve the following:

- **Eye exam.** Although it may be uncomfortable to open your eyes for the exam, it's important to have your eye care provider examine your eyes.
- **Slit-lamp exam.** Your eye care provider will examine your eyes with a special instrument called a slit lamp. It provides a bright source of light and magnification to detect the character and extent of cornea ulcers, as well as the effect it may have on other structures of the eye.
- **Laboratory analysis.** Your eye care provider may take a sample of tears or some cells from your cornea for laboratory analysis to determine the cause of cornea ulcers and to help develop a treatment plan for you.



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WHAT ARE THE TREATMENTS?

Noninfectious cornea ulcers

Treatment of noninfectious cornea ulcers vary depending on the severity. For example, with mild discomfort from a corneal scratch, artificial tear drops may be the only treatment. However, if a cornea ulcer is causing significant tearing and pain, topical eye medications may be necessary.

Infectious cornea ulcers

Treatment of infectious cornea ulcers vary depending on the cause of the infection.

- **Bacterial cornea ulcers.** Antibiotic eye drops are the primary treatment for bacterial cornea ulcers. Depending on the severity of the infection, drop frequency can range from around four times a day to every 30 minutes, even during the night. Sometimes oral antibiotics are used as a supplement.
- **Fungal cornea ulcers.** Cornea ulcers caused by fungi typically require antifungal eye drops and oral antifungal medication.
- **Viral cornea ulcers.** If a virus is causing the infection, antiviral eye drops and oral antiviral medications may be effective. Other viruses need only supportive care such as artificial tear drops.
- **Acanthamoeba cornea ulcers.** Cornea ulcers caused by the parasite acanthamoeba can be difficult to treat. Antiparasitic eye drops are used, but some acanthamoeba infections are resistant to medication and can require treatment for several months. Severe cases of acanthamoeba cornea ulcers may require a cornea transplant.

If a cornea ulcer doesn't respond to medication, or if it causes permanent damage to the cornea that significantly impairs your vision, your eye care provider may recommend a cornea transplant.