

Fusarium Keratitis

What is *Fusarium keratitis*?

Fusarium keratitis is a severe infection of the cornea.

What is *Fusarium*?

Fusarium is a rapidly growing fungus. A few species can cause eye infections, leading to damage of the cornea in humans.

What is keratitis?

Keratitis is inflammation of the cornea. The cornea is the clear membrane that covers the colored part of the eye (iris) and pupil of the eye. There are various types and causes of keratitis.

Where is *Fusarium* found?

Fusarium is a common fungus that is widely distributed in plants and in soil. It is commonly found in tropical and subtropical regions including the southernmost areas of the United States. It is found naturally in rice, bean, soybean, and other crops.

How do people get infected with *Fusarium keratitis*?

Fungal organisms cannot generally invade an intact, healthy cornea. However, some factors can lead to an increased risk of infection including:

- Poor contact lens care or overuse of contact lenses. There are an estimated 30 million soft contact lens users in the United States; the annual incidence of keratitis caused by germs in contact lens users is estimated to be 4 to 21 cases per 10,000 soft contact lens users per year, depending on overnight lens use.
- Illnesses or other conditions that reduce the body's ability to overcome infection.
- Eye injuries involving plants or a scratched cornea. Before the recent surge in contact lens-related cases, *Fusarium keratitis* was typically associated with being poked in the eye by a plant that was infected with the fungus.
- A very dry eye can also decrease the cornea's protective mechanisms.

What are the symptoms of *Fusarium keratitis*?

The symptoms of *Fusarium keratitis* may include:

- Unusual eye redness
- Eye pain
- Tearing
- Discharge
- Sensitivity to light

What are some of the long-term complications of fungal keratitis?

Early detection and treatment can cure most forms of fungal keratitis, but a serious infection can cause:

- Glaucoma
- Permanent scarring
- Ulceration of the cornea
- Blindness

Is *Fusarium keratitis* spread from person to person?

No. *Fusarium keratitis* it is not transmitted from person to person.

How is *Fusarium keratitis* diagnosed?

Patients with symptoms associated with *Fusarium keratitis* should see an ophthalmologist for immediate diagnosis and treatment.

How is *Fusarium keratitis* treated?

First-line treatment can include prolonged topical or intravenous infusion of antifungal medications. Patients who do not respond to medications may require surgical intervention, including corneal transplantation. Without treatment, which can last two to three months, the infection can scar the cornea, sometimes causing blindness.

What can be done to reduce the risk for *Fusarium keratitis*?

For contact lens wearers, recommendations include the following:

- Wash hands with soap and water, and drying with a lint-free towel before handling lenses.
- Wear and replace lenses according to the schedule prescribed by your doctor.
- Follow the specific lens cleaning and storage guidelines from your doctor and the solution manufacturer.
- Keep the contact lens case clean and replace every 3-6 months.
- Remove the lenses and consult your doctor immediately if you experience symptoms regardless of which cleaning/disinfecting solution is used.
- Contact wearers may want to consider performing a “rub and rinse” lens cleaning method, rather than a no-rub method, in order to minimize the number of germs on the lens and reduce the chances of infection. Proteins and other things can deposit on the contacts, leading to an increased risk of infection.
- Never put contact lenses in the mouth or moisten them with saliva; saliva is full of bacteria and therefore is a potential source of infection.
- Don't use tap water or homemade saline solutions. Improper use of solutions has been linked to a potentially blinding condition among soft lens wearers.

Where can I get more information?

- Your ophthalmologist
- Your local health department, listed in your telephone directory
- Utah Department of Health, Bureau of Epidemiology 801-538-6191
- Centers for Disease Control and Prevention (CDC) at:
<http://www.cdc.gov/mmwr/preview/mmwrhtml/mm55d410a1.htm>

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