

What is Fuchs' Corneal Dystrophy?

Fuchs' dystrophy is an inherited condition that affects the delicate inner layer (endothelium) of the cornea. The endothelium functions as a pump, constantly removing fluid from the cornea to maintain its clarity. Patients gradually lose these endothelial cells as the dystrophy progresses. Once lost, the endothelial cells do not grow back, but instead spread out to fill the empty spaces. The pump system becomes less efficient, causing corneal clouding, swelling and eventually, reduced vision.

In the early stages, Fuchs' patients notice glare and light sensitivity. As the dystrophy progresses, the vision may seem blurred in the morning and sharper later in the day. This happens because the internal layers of the cornea tend to retain more moisture during sleep that evaporates when the eyes are open. As the dystrophy worsens, the vision becomes continuously blurred.

Fuchs' affects both eyes and is slightly more common among women than men. It generally begins after 40 years of age and gradually progresses. If the vision becomes significantly impaired, a corneal transplant may be indicated. Sometimes corneal transplant is performed along with cataract and intraocular lens implant surgery.

Fuchs' is detected by examining the cornea with a slit lamp microscope that magnifies the endothelial cells thousands of times. The health of the endothelium is evaluated and monitored with pachymetry and specular microscopy.

Signs and Symptoms of Fuchs' Corneal Dystrophy

- Hazy vision that is often most pronounced in the morning
- Fluctuating vision
- Glare when looking at lights
- Light sensitivity
- Sandy, gritty sensation

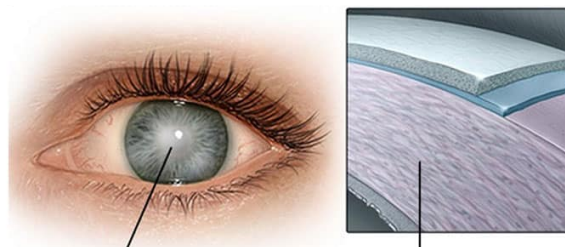


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Treatment Options

Fuchs' cannot be cured; however, with certain medications, blurred vision resulting from the corneal swelling can be controlled. Salt solutions such as sodium chloride drops or ointment are often prescribed to draw fluid from the cornea and reduce swelling. Corneal transplant is indicated when the vision deteriorates to the point that it impairs the patient's ability to function normally.

While full-thickness corneal transplants were the norm for many years, recent techniques have evolved to allow partial-thickness transplants of the diseased part of the cornea. Known as Descemet's Stripping Automated Endothelial Keratoplasty (DSAEK), this procedure allows for better safety, faster recovery, and better long-term outcomes than traditional corneal transplants.