Lions Eye Institute

FACT SHEET

What is Fuchs' dystrophy?

Fuchs' dystrophy (also called Fuchs' endothelial dystrophy) is a disease of the cornea – the clear dome-shaped window on the front of your eye which allows light to enter. It is the main part of the eye used for focusing.

The cornea is lined with endothelial cells which help maintain the fluid balance of your cornea and prevent the cornea from swelling. The endothelial cells make a membrane (Descemet's membrane) that anchors them on to the back of the cornea.

With Fuchs' dystrophy, these cells gradually die and fluids build up in your cornea which then becomes swollen and Descemet's membrane becomes abnormally thick. **This makes focusing difficult, resulting in hazy or blurred vision.**

Fuchs' dystrophy affects one in every 25 Australians over the age of 40 – almost half a million people.

What causes Fuchs' dystrophy?

What causes the cornea's endothelial cells to die is unknown.

The condition is genetically determined and the main risk factors for developing the condition are:

- **Family history**: Fuchs' dystrophy is often inherited
- **Age**: the disease typically starts in adulthood, but often symptoms are not developed until over 50 years of age
- **Gender**: the condition is more common in women than in men.

What are the symptoms of Fuchs' dystrophy?

Fuchs' dystrophy usually progresses slowly over several years. People in their 30s and 40s may have the condition, but not know it.

In the early stages of the disease you may not be aware of any issues at all. As it progresses there will be gradually **increasing blurring of vision and loss of contrast with vision**. Often that is worse in the morning and then clears later in the day but in later stages of the disease vision is blurry all the time.

Other symptoms include:

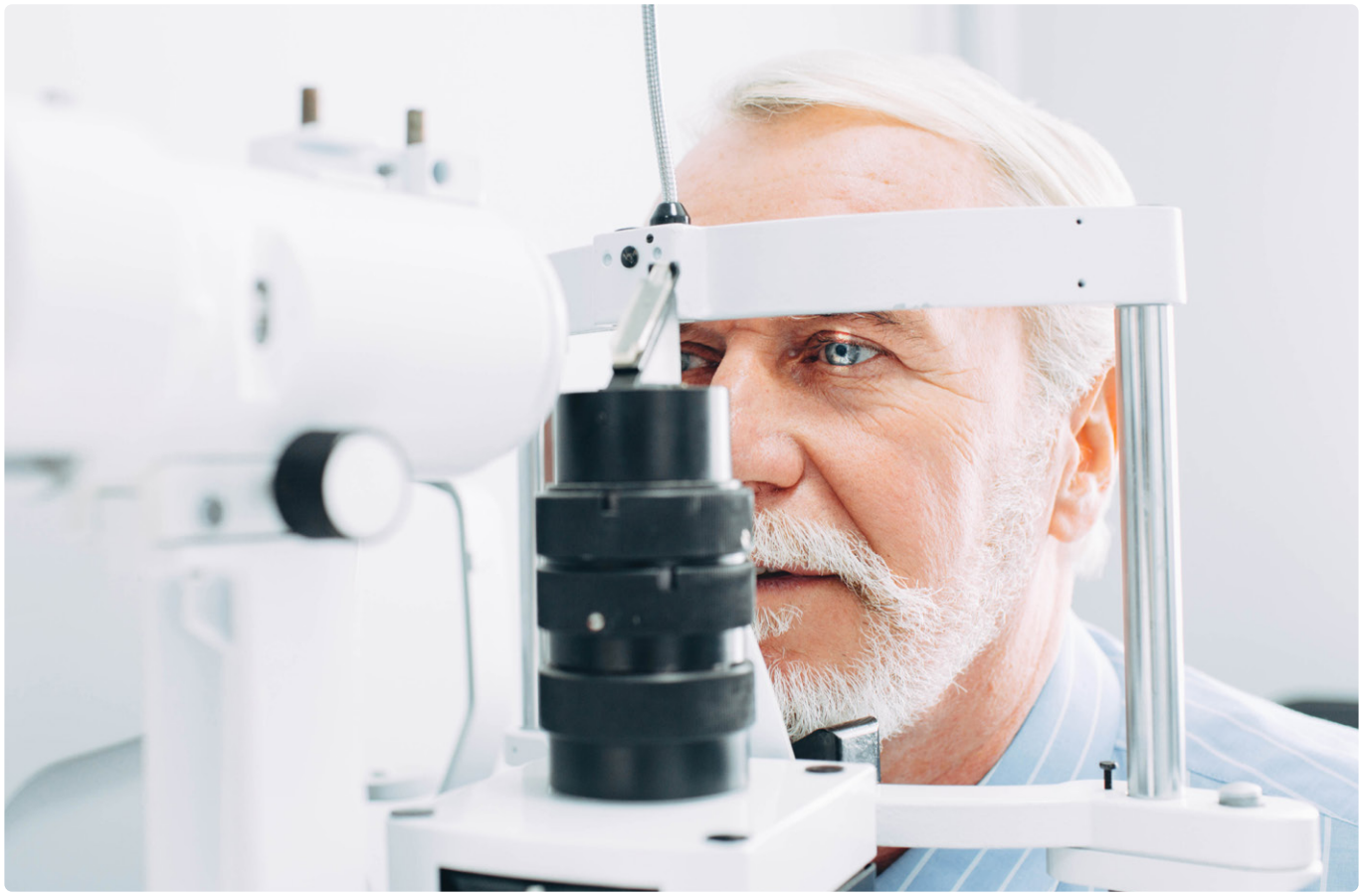
- Greater sensitivity to bright light
- Eye problems worsening in humid areas
- Very blurry or hazy vision from scarring at the centre of the cornea
- Eye pain – tiny blisters may form in the cornea which enlarge and eventually break open causing eye pain.

How is Fuchs' dystrophy diagnosed?

Your ophthalmologist can detect the condition with an eye exam.

The **cornea will be examined on the slit lamp** looking for corneal swelling and bumps on its back surface (endothelial guttae) – these are often the initial manifestation of the condition.

Using a special photograph of your cornea (specular microscopy), your ophthalmologist may count your endothelial cells and the thickness of your cornea will be measured (pachymetry).



How is Fuchs' dystrophy treated?

There is no cure for Fuchs' dystrophy, but having regular eye exams after the age of 50 can catch the disease before it starts causing pain and vision loss.

In early stage Fuchs' dystrophy the condition is usually monitored.

In later stage Fuchs' dystrophy, when the cornea begins to swell and blur the vision all the time, then a corneal transplant may be considered.

Corneal transplant surgery could be one of two types:

- **Endothelial keratoplasty** (EK) where healthy endothelial cells are transplanted onto the back surface of your cornea
- **Full-thickness or penetrating keratoplasty** (PK) where the centre of your cornea is replaced with a healthy donor cornea.

Fuchs' dystrophy is often associated with cataract that may contribute to the deterioration in vision. Management of the corneal problem and the cataract will depend on the severity of each.

Your ophthalmologist will discuss with you the treatments that are best for your condition.

Need to know more?

Please contact the Lions Eye Institute to make an appointment with one of our ophthalmologists.
Phone: (08) 9381 0777; email: carecentre@lei.org.au; or see our website: lei.org.au