

What is keratoconus?

Keratoconus is a condition affecting the *cornea*, the clear front window of the eye that normally focuses light allowing you to see clearly. In keratoconus, the cornea becomes progressively thinner and cone shaped, causing distortion of your vision (see images below).



normal cornea



cornea with keratoconus

It is an uncommon condition, affecting about 1 in 2000 people. It is often diagnosed in the teenage years and classically progresses between 15 to 25 years old. In the thirties the condition tends to stabilise and rarely progresses after 35 years old.

What are the symptoms?

Keratoconus is usually present in both eyes, although it may be worse in one eye than the other. The symptoms include:

- blurred vision and distortion
- glare
- frequent changes in glasses or contact lens prescriptions with increase in myopia (short sightedness) and astigmatism (corneal irregularity).

Occasionally, rapid progression of keratoconus can lead to sudden swelling and 'whitening' of the cornea leading to a sudden reduction in vision, light sensitivity and a red eye. This is called 'hydrops' and is caused by a tiny break in one of the layers in the cornea allowing the cornea to swell. It gradually heals over several months and leaves a scar on the cornea.

What causes keratoconus?

The cause of keratoconus is still unknown. There are several risk factors that have been found to be associated with the condition, for example:

- excessive eye rubbing which is often associated with allergy symptoms
- a family history.

How is keratoconus detected?

The diagnosis of keratoconus is most commonly made by an examination of the eye, including taking images of the front of the eye that show the shape of the cornea (corneal topography).

Changes over a period of time in your glasses prescription and in the corneal topography help us determine if your keratoconus is progressing. A regular comprehensive eye examination (at least yearly) is therefore important.

Treatment

To improve your vision, glasses may be sufficient. However, as keratoconus progresses, rigid, gas permeable contact lenses may be required. In the most advanced stages, a corneal transplant may be necessary if there is significant corneal scarring and/or a contact lens cannot be fitted to improve the vision.

While there is no cure for keratoconus, people with progressive keratoconus may be suitable for corneal collagen cross-linking. This treatment is designed to stop the progression of keratoconus, but is unlikely to improve the vision. A separate information sheet on cross-linking is available.

Eye drops may also be prescribed if you have symptoms of allergy. It is important that you avoid excessively rubbing your eyes as this may cause the keratoconus to progress more rapidly.

More information

For more information, visit the Keratoconus Australia website at www.keratoconus.org.au.

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