

# Keratoconus

## Information

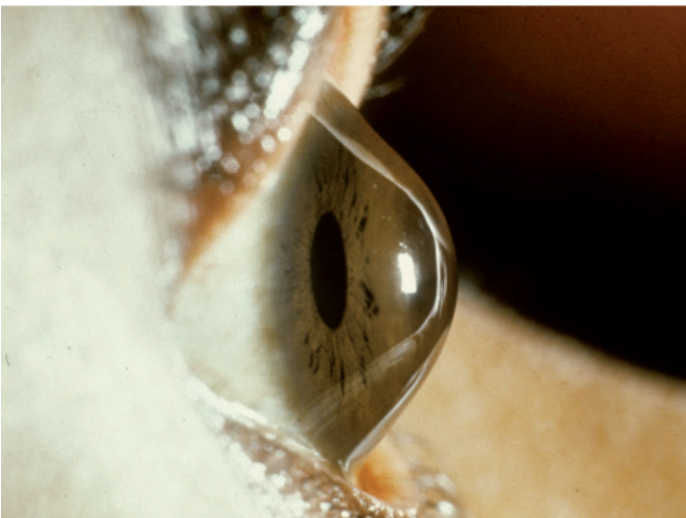
### What is keratoconus?

Keratoconus (literally, conical cornea) is a thinning of the central zone of the cornea, the front surface of the eye. The normal pressure within the eye makes the thinner area of the cornea bulge forward slightly.

### What causes keratoconus?

Keratoconus is an inherited disorder that occurs in about one in 3,000 people. It is a recessive condition requiring genetic factors to be inherited from both parents, so the chances of the children of a person with keratoconus also having the condition are low – about one in 50.

It is sometimes associated with other conditions such as allergies, infantile eczema, asthma, reduced night vision, double jointedness and, in rare instances, with occasional short bouts of chest pain.



The Medical Photographic Imaging Centre, Royal Victorian Eye and Ear Hospital



### What do people with keratoconus experience?

Keratoconus usually becomes apparent between the ages of 10 and 25 years. The initial symptom of keratoconus is blurred vision, which is caused by short-sightedness and astigmatism. These are caused by the cornea changing shape as it bulges forward. At this stage, good vision can generally be obtained with spectacles.

As keratoconus progresses, the shape of the cornea becomes irregular and it is not possible to correct the vision with spectacles alone. In such cases, rigid contact lenses can be used to provide good vision. The contact lenses essentially provide a new, regular front surface for the eye, eliminating the distortions caused by keratoconus.

Because the cornea continues to change shape, it is important for people with keratoconus to have regular eye examinations to ensure that their contact lenses fit correctly. A poorly-fitting contact lens can cause abrasions and scarring.

In most cases of keratoconus, the condition gradually stabilises by the age of 35 years.

### Can keratoconus be treated?

Because keratoconus is a genetic condition, it cannot be cured but spectacles and contact lenses can give good vision. In about 15 per cent of cases, surgery in the form of a corneal graft may be required. In this procedure, the thinned area of the cornea is removed and replaced by normal tissue transplanted from a donor cornea. Corneal grafting is used only when all other methods for correcting vision have failed to provide good vision. The success rate for corneal grafts is extremely high although most people will still need to wear spectacles or contact lenses.

Collagen cross-linking is a therapy that uses administration of vitamin B12 and UV light to strengthen the structure of corneas affected by keratoconus. Ophthalmologists (eye surgeons) may carry out this procedure to slow the progression of keratoconus. For more information, speak to your optometrist.

**Regular eye examinations are the best way to ensure good vision for life. Visit [keratoconus.org.au](http://keratoconus.org.au) for more information on the condition.**

## Your optometrist