

Keratoconus

(pronounced KEHR-uh-toh-KOH-nus)

Keratoconus is an eye condition that results in the regularly dome-shaped cornea (the clear front window of the eye) bulging outwards and thinning.

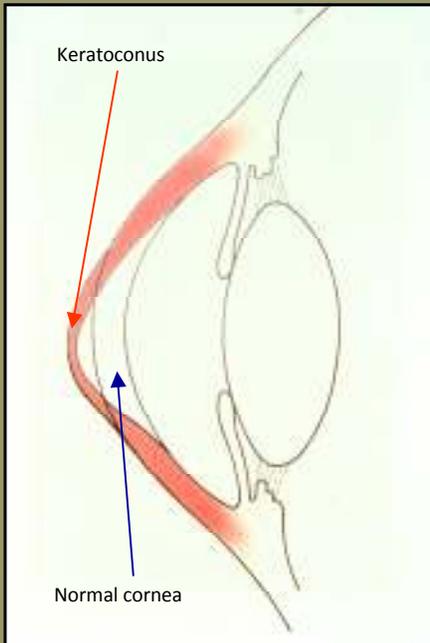


Diagram comparing keratoconus (red arrow) to a normal unaffected cornea (blue arrow)

In Greek, keratoconus means “cone-shaped cornea.”

More information on keratoconus can be found at the National Keratoconus Foundation website www.nkcf.org



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Informational
Brochure

Keratoconus



Eye Facts

This brochure does not constitute professional medical advice. You should discuss your condition with a licensed ophthalmologist.

What is keratoconus?

Keratoconus is an eye condition in which the regularly dome-shaped cornea bulges outwards and thins over time. Symptoms are typically first noticed in the late teens or early 20's and tend to progress slowly over the next 10 to 20 years. Keratoconus occurs in approximately 1 in 2000 people and is usually present in both eyes.



Advanced keratoconus (left) compared to an unaffected cornea (right)

What causes keratoconus?

Little is known about what causes keratoconus. A gradual weakening of corneal tissue is thought to lead to the condition. About 10% of people with keratoconus have a family history of the condition. Vigorous and prolonged eye rubbing has also been associated with keratoconus.

What are the symptoms of keratoconus?

Depending on the rate of progression and severity, keratoconus can have mild to severe effects on your vision. Keratoconus affects everyone differently. In some

people keratoconus progresses until surgical treatment is required and in others it stops progressing on its own. One eye is often affected more than the other.

Early symptoms of keratoconus may include:

- Mild blurring and distortion of vision
- Sensitivity to light
- Glare
- Mild eye irritation
- Eye strain

Symptoms of more advanced keratoconus may include:

- Increased blurring and distortion of vision
- Increased nearsightedness or astigmatism
- Frequent eyeglass prescription changes
- Sensitivity or intolerance to contact lenses

How is keratoconus treated?

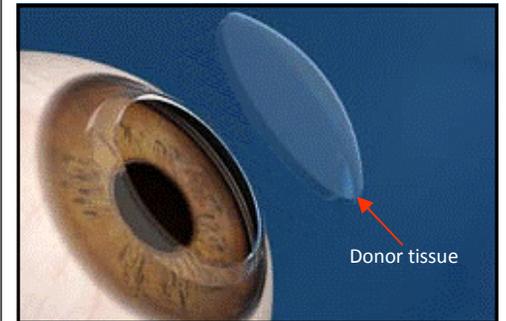
Keratoconus sometimes settles down on its own and does not require surgical treatment. Glasses or specially fitted contact lenses may be sufficient to maintain an acceptable level of vision.

Unfortunately, in about 15% of cases, keratoconus has an aggressive course and vision deteriorates to the point that surgical intervention is necessary.

Surgical treatment

The primary surgical treatment for advanced keratoconus is a corneal transplant which involves replacing the damaged cornea with a healthy donor cornea. Corneal transplants for

keratoconus have a very high success rate but have risks of infection or rejection.



Tissue replaced in a corneal transplant

Recently, treatments have been developed to treat keratoconus at earlier stages which may be able to prevent or delay the need for corneal transplants.

Corneal collagen cross-linking (CXL) is a non-invasive treatment where riboflavin and ultraviolet light are applied to the cornea. CXL strengthens and adds resilience to corneas affected by keratoconus and can help prevent vision from getting worse.

When contact lenses can no longer be tolerated, intrastromal ring segments may represent a less invasive option than corneal transplants to correct nearsightedness and astigmatism.

Please arrange an appointment with [Dr. McCarthy](#) if you would like more information on your condition and the treatment options available