

Keratoconus

What?

So What?

Now What?



Keratoconus is a non-inflammatory condition that causes progressive thinning of the central cornea (clear window of the front of the eye).

Acknowledgments: Samuel, A., Kumar, A., Baig, K., Sabeti, S.

What causes keratoconus?

- The **cornea** is the clear, dome-shaped surface at the front of the eye that helps focus light onto the retina.
 - **Keratoconus** is a condition involving gradual increase of irregular curvature of the cornea due to thinning.
 - The thinning of the cornea forms a **cone shape**, rather than a round shape, which causes distortion of light rays and vision loss.
- The exact cause is unknown, but there are genetic and environmental components associated with various risk factors:

Risk Factors:

- Chronic eye rubbing
- Family history
- Sleeping with pressure on the eyes
- Allergies causing chronic eye inflammation
- Trauma from poorly fitted contact lenses
- Obstructive sleep apnea (OSA) has been associated.

Why is keratoconus important?

Keratoconus can cause distorted vision. In some cases, scarring can occur.

If left untreated, permanent vision loss requiring corneal transplantation can occur.

Early intervention through a comprehensive eye exam can greatly improve long-term visual health.

How does keratoconus present?

Although keratoconus is bilateral, the disease can progress asymmetrically causing one eye to present with more advance disease than the other.

Patients present with:

- Blurring and distorted vision due to abnormal corneal curvature
- Frequent changes to spectacle prescriptions
- Glare and halos around lights
- Difficulty seeing at night
- Increased photophobia
- Vision loss due to scarring or hydrops, an acute condition leading to corneal swelling to fragile corneal tissue layers.

What are my treatment options?

What you can do to help:

- **STOP eye rubbing**
- **Avoid pressure on the eyes at all times, including when sleeping.**

Management:

- **Preventing progression:**
 - Regular monitoring will be advised according to the discretion of your doctor
 - If progression of disease is detected, your physician will speak to you about cross-linking
- **Vision correction:**
 - Your doctor will speak to you about the best options for your eyes.



Keratoconus

What?

So What?

Now What?



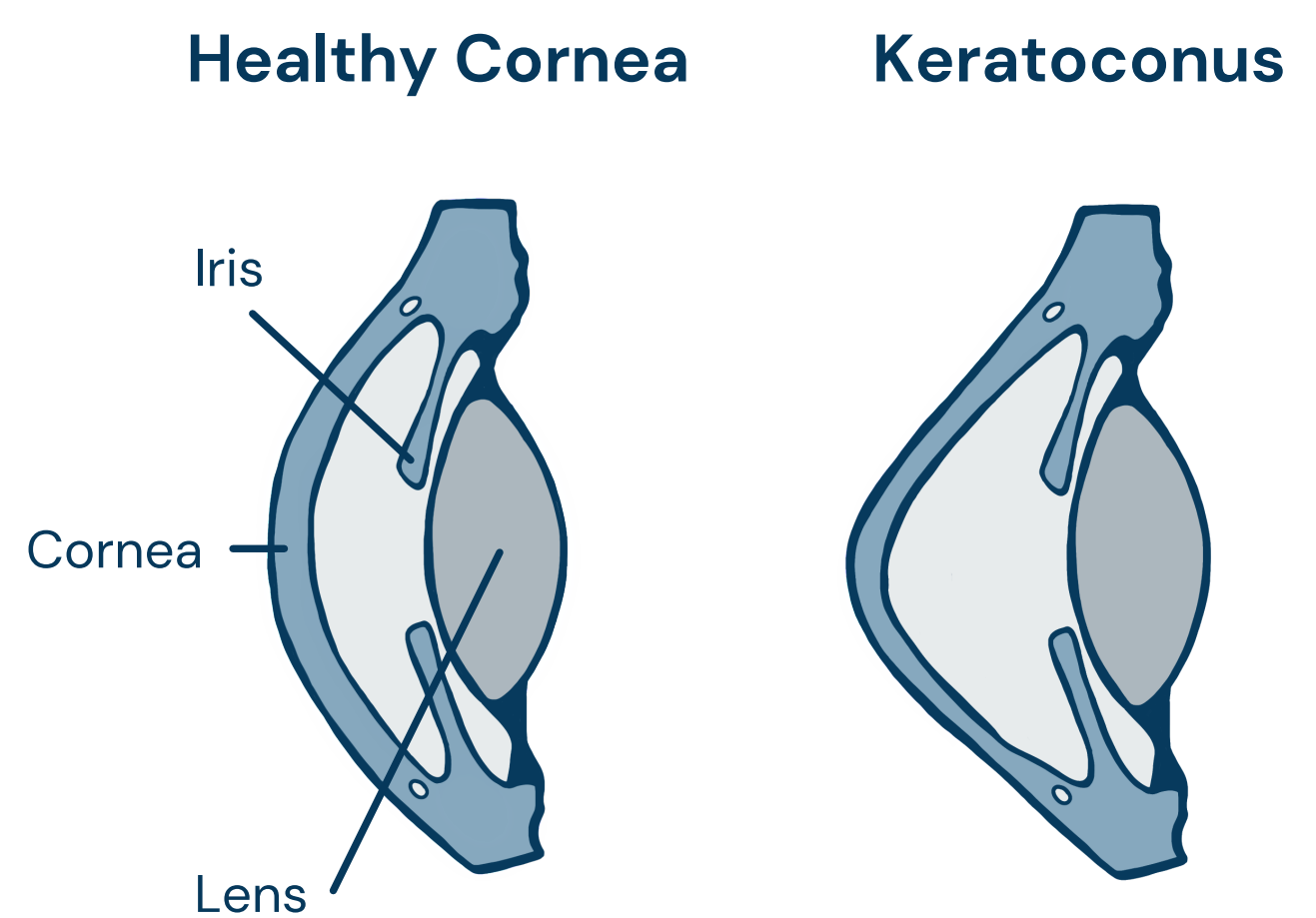
Keratoconus is a non-inflammatory condition that causes progressive thinning of the central cornea (clear window of the front of the eye).

Acknowledgments: Samuel, A., Kumar, A., Baig, K., Sabeti, S.

Options may include:

- **A) Prescription glasses and contact lenses**
 - Blurry vision from mild to moderate keratoconus can typically be managed with spectacles or soft contact lenses to correct refractive error.
- **B) Cross-linking**
 - Is a procedure that uses a combination of UV-A light and riboflavin (B2) to help stabilize corneal tissue by creating stronger bonds between the collagen fibers to reduce the progression of keratoconus.
- **C) Intracorneal ring segments (ICRS) / Corneal Allogenic Intrastromal Ring Segment (CAIRS)**
 - Artificial or donor tissue ring segments are placed in the middle layer of the cornea known as the stroma to reshape the corneal contour.

- **D) Deep Anterior Lamellar Keratoplasty (DALK) / Penetrating keratoplasty (PKP) corneal transplant**
 - If the other treatment plans are not effective in the treatment of Keratoconus, a full thickness cornea transplant (penetrating keratoplasty) surgery may replace damaged tissue with a healthy donor cornea.



In keratoconus the cornea thins and bulges outward.

Your Surgery Details

- Date: _____
- Time: _____
- Location: Precision Cornea Centre
- Surgeon: _____
- Follow Up: _____
- Additional Notes: _____



For more information about keratoconus, book an appointment with your eye doctor today.

