



# UNDERSTANDING KERATOCONUS & THE IMPORTANCE OF EARLY DIAGNOSIS

**Keratoconus is an underdiagnosed and progressive eye disease.**

If you are experiencing vision changes and have symptoms of keratoconus, don't wait!  
Schedule an appointment with an eye doctor to get screened.  
Your vision may continue to get worse, so early diagnosis is critical.

## WHAT IS KERATOCONUS?

**Keratoconus**  
[ker-uh-toh-koh-nuhs]

Keratoconus or "KC" is a sight-threatening eye disease in which the normally round dome-shaped cornea progressively thins causing a cone-like bulge to develop. This results in significant visual loss.<sup>1</sup>

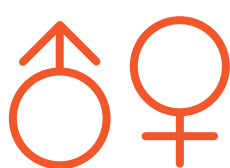


Normal



Keratoconus

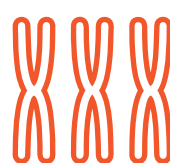
## WHO'S AFFECTED BY KERATOCONUS?



**Keratoconus can affect anyone** although some studies have shown a higher rate in males.<sup>2</sup>



The disease is also **found in all ethnic groups** with some studies showing higher incidence rates among Asian, Black, and Hispanic populations.<sup>3</sup>



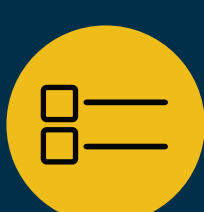
Research shows that **an estimated 5-30% of people with Down Syndrome are also affected** by keratoconus.<sup>4,5</sup>

## SIGNS & SYMPTOMS OF KERATOCONUS<sup>6</sup>

Usually first appear in the late teens and early twenties<sup>7</sup>



Excessive Eye Rubbing



Family History of Keratoconus



Difficulty Seeing at Night



Frequent Prescription Changes



Frequent Headaches



Vision That Cannot Be Fully Corrected With Glasses or Contacts

## RISK FACTORS FOR KERATOCONUS

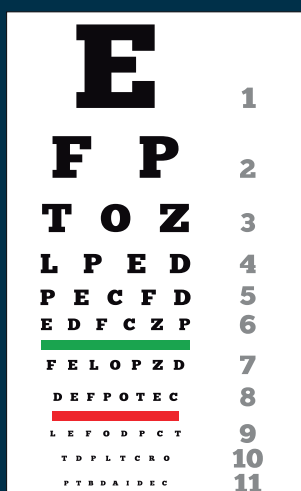


While the **exact cause of keratoconus is unknown**, it is believed that **genetics**, the **environment**, such as allergens & eye rubbing, and **hormonal changes** all play a role.<sup>8</sup>

The simple reflexive act of **rubbing your eyes** can be both a **cause** and a **symptom** of keratoconus.

Some KC cases have a hereditary component and studies indicate that **~10% of patients have affected relatives**.<sup>9</sup>

## IMPORTANCE OF EARLY DETECTION



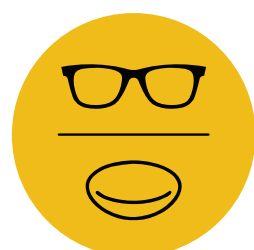
Example of Keratoconus Progression Over Time\*



KC is a **progressive disease** which worsens over time, so **early diagnosis is critical**.

\*Individual outcomes may vary. The depiction may not reflect the typical keratoconus patient's experience and the timeline may vary. It is not intended to represent or guarantee that anyone will have the same or similar outcomes.

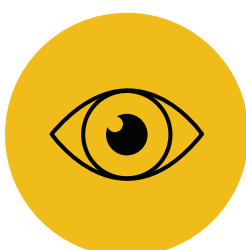
## TREATMENT OPTIONS FOR KERATOCONUS<sup>9</sup>



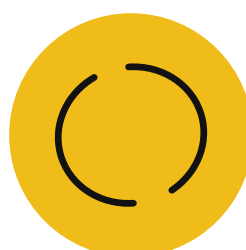
Eyeglasses or Soft Contact Lenses



Specialty Contact Lenses (RGP, Scleral, Hybrid)



Corneal Cross-Linking (CXL)



Intracorneal Ring Segments (ICRS)



Corneal Transplant Surgery

**TAKE THE KC QUIZ AT COULDITBEKC.COM**



### REFERENCES

- 1-<http://www.nkcf.org/about-keratoconus/>
- 2-<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3775068/>
- 3-<https://www.nature.com/eye/journal/v14/n4/pdf/eye2000154a.pdf?origin=ppub>
- 4-Allo, J. L., Vega-Estrada, A., Sanz, P., Osman, A. A., Kamal, A. M., Mamoon, A., & Soliman, H. (2018). Corneal morphologic characteristics in 5-patients with down syndrome. JAMA Ophthalmology, 136(9), 971. <https://doi.org/10.1001/jamaophthalmol.2018.2373>
- 5-Kristianslund, O., & Drolsum, L. (2021). Prevalence of keratoconus in persons with Down Syndrome: A Review. BMJ Open Ophthalmology, 6(1). <https://doi.org/10.1136/bmjophth-2021-000754>
- 6-<http://www.nkcf.org/living-keratoconus/>
- 7-<http://www.kcglobal.org/p/keratoconus.html>
- 8-<http://www.nkcf.org/about-keratoconus/what-causes-keratoconus/>
- 9-<http://www.kcglobal.org/p/keratoconus.html>
- 10-<http://www.nkcf.org/homepage-clean/featured-content/treatment-options-for-keratoconus-focus-on-correcting-the-distorted-vision-caused-by-the-thinning-and-bulging-of-the-cornea/>