

Keratoconus

This disorder is the most common corneal dystrophy in the U.S., affecting one in every 2000 Americans. It is more prevalent in the late teenage years and adults in their 20's. Keratoconus is a progressive thinning of the central cornea. Keratoconus arises when the middle of the cornea thins and gradually bulges outward, forming a rounded cone shape. This abnormal curvature changes the cornea's refractive power, producing moderate to severe distortion of vision that is often difficult to correct with glasses or contact lenses. Keratoconus may also lead to swelling and corneal scarring, which can limit vision.

There are several possible causes for Keratoconus:

- **Inheritance:** Approximately seven percent of patients with keratoconus have a family history of the condition.
- **Eye injury,** such as excessive eye rubbing or wearing hard contact lenses for many years.
- **Certain eye diseases,** such as retinitis pigmentosa, retinopathy of prematurity, and vernal keratoconjunctivitis.
- **Systemic diseases,** such as, Ehlers-Danlos syndrome, Leber's congenital amaurosis , Down syndrome, and osteogenesis imperfecta.

Keratoconus generally affects both eyes. Early on, patients can correct their vision with eyeglasses and soft contact lenses. As their astigmatism worsens with the progressive corneal thinning, however, they must rely on specially fitted contact lenses to reduce the distortion and provide better vision. Finding a comfortable contact lens can be an extremely difficult and frustrating process but it is crucial because a poorly fitting lens can further damage the cornea and make wearing a contacts very uncomfortable.

In the majority cases, the cornea will stabilize after a few years without ever causing severe vision problems. In 10 to 20 percent of people with keratoconus, however, the cornea will eventually become too scarred or will not tolerate a contact lens. If this happens, a corneal transplant may be needed to restore vision. This operation is successful in over 90 percent of patients with advanced keratoconus, with 80 percent or more achieving 20/40 vision or better after surgery.

For more information on Keratoconus:

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