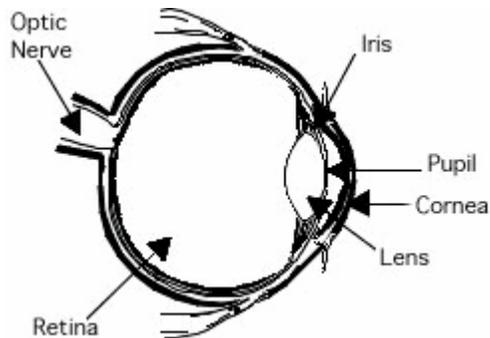


Keratoconus (KC)



The disorder keratoconus (KC) - a progressive thinning of the cornea - is the most common corneal dystrophy in the U.S., affecting one in every 2000 Americans. It is more prevalent in teenagers and adults in their twenties.

Symptoms

Keratoconus, frequently referred to as KC, 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 (astigmatism) and blurriness (nearsightedness) of vision. Keratoconus may also cause swelling and a sight-impairing scarring of the tissue.

Studies indicate that keratoconus stems from one of several possible causes:

1. An inherited corneal abnormality. About seven percent of those with the condition have a family history of keratoconus.
2. An eye injury, i.e., excessive eye rubbing or wearing hard contact lenses for many years.
3. Certain eye diseases, such as retinitis pigmentosa, retinopathy of prematurity, and vernal keratoconjunctivitis.
4. Systemic diseases, such as Leber's congenital amaurosis, Ehlers-Danlos syndrome, Down syndrome, and osteogenesis imperfecta.

Treatment

Keratoconus usually affects both eyes. At first, people can correct their vision with eyeglasses. But as the astigmatism worsens, they must rely on specially fitted contact lenses to reduce the distortion and provide better vision. Although finding a comfortable contact lens can be an extremely frustrating and difficult process, it is crucial because a poorly fitting lens could further damage the cornea and make wearing a contact lens intolerable.

In most cases, the cornea will stabilize after a few years without ever causing severe vision problems. But in about 10 to 20 percent of people with keratoconus, the cornea

will eventually become too scarred or will not tolerate a contact lens. If either of these problems occur, a corneal transplant may be needed. This operation is successful in more than 90 percent of those with advanced keratoconus. Several studies have also reported that 80 percent or more of these patients have 20/40 vision or better after the operation.