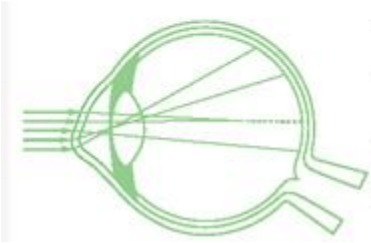
KERATOCONUS

What is keratoconus? Keratoconus literally means a cone-shaped cornea. The cornea (the clear front portion of the eye) becomes thin and protrudes. This abnormal shape can cause severe distortion of vision.

A healthy eye is more spherical in shape allowing an image to come into focus clearly.



The cornea of an eye with keratoconus bulges outward, creating a cone-like shape and distorted vision.

What causes keratoconus? Research indicates that keratoconus may be caused by an excess of enzymes that break down the proteins in the corneal surface. Keratoconus appears to run in families. The condition happens more often in people with certain medical problems including certain allergic conditions. Most often though, there is no eye injury or disease that explains why the eye starts to change. Keratoconus usually starts in the teenage years but it can begin earlier or later. The changes in the shape of the cornea can happen quickly or may occur over several years.

What are the symptoms of keratoconus? Blurred vision, distortion, glare, light-sensitivity and corneal irritation are among the early signs. As the disease progresses and the cornea steepens and scars, the visual distortion will increase. The changes can stop at any time or they can continue for decades. In most people both eyes are eventually affected .

How is keratoconus treated? Glasses may be sufficient in the early stages of keratoconus but contact lenses are needed when the cornea becomes so misshapen that glasses are no longer effective. The contact lenses for keratoconus are usually hard gas-permeable lenses which are not always comfortable. They may be worn for a limited amount of hours each day and without them the vision is very blurred. In some cases the corneal shape becomes even too distorted for contact lenses to help. Scarring may develop causing the vision to be cloudy. At this stage a corneal transplant is usually needed. Corneal transplantation is a major surgical procedure and carries many risks.

There is however a relatively new treatment for keratoconus called Corneal Collagen Crosslinking with riboflavin.

Corneal Collagen Crosslinking with riboflavin causes the formation of normal chemical links between the collagen protein strands in the cornea. This strengthens the cornea making it more rigid and can stop the keratoconus from progressing. The treatment may even cause the keratoconus to reverse to some extent. Corneal Collagen Crosslinking may prevent the need for contact lenses if performed early on. Even where contact lenses are already needed, Corneal Collagen Crosslinking can eliminate the need for corneal transplantation. No other treatment for keratoconus can offer these benefits. Current evidence is that the effects of treatment are permanent.

It is an outpatient procedure and is extremely safe.

Based on the available data, Corneal Collagen Crosslinking offers a treatment for a disease that currently has no real treatment except corneal transplantation.

This treatment is now available in Jamaica.

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