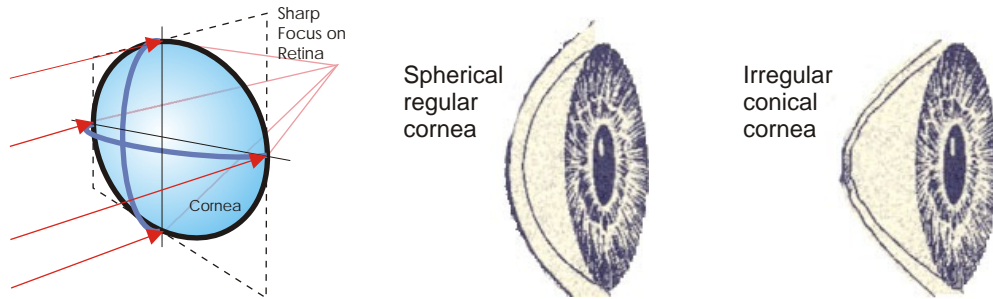


Keratoconus

The word Keratoconus (KC), comes from the Greek words: Kerato (cornea), and Konos (cone). The cornea is the clear window of the eye which starts focussing light onto the retina.



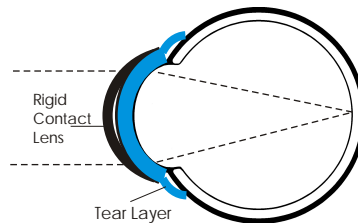
Ideally the cornea should be clear, to allow light to pass through it, and spherical in shape, to act as an accurate light focussing surface. In Keratoconus the cornea becomes thin and distorts allowing a cone shaped bulge to develop. This can result in significant visual distortion.

Signs and Symptoms

The first indication of KC for the patient is blurry, distorted vision. People may simply think they need glasses. It can come as a shock to hear their vision problem is not quite as straight-forward as they expected. In the early stages KC can be managed with glasses, although they often require frequent changes as the corneal shape alters.

Contact Lens Management of Keratoconus

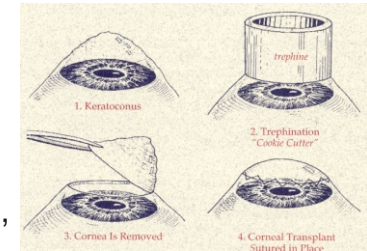
Because the cornea becomes distorted in an irregular way, its' curves cannot be corrected adequately with regular spectacle lenses or soft contact lenses, the most effective way to give acceptable vision is to fit rigid gas permeable (RGP) contact lenses. An RGP lens maintains its' shape, tears pool between it and the cornea and the corneal distortion is neutralised. The RGP lens creates an artificial spherical front curve for the eye. We use more advanced lenses such as Sealed Sclerals and Duets which give excellent vision quality, comfort and stability.



Surgery

Until recently there was no treatment for KC and management goals were simply to try to correct vision.

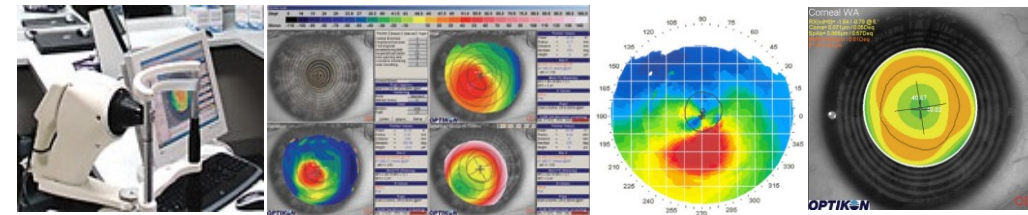
If spectacles and contact lenses fail to correct vision adequately as the condition progresses, corneal transplants may be necessary.



Cross Linking: Earliest Detection to STOP Progression

Corneal collagen Cross-Linking with riboflavin (Vit B₂) is a treatment to STOP Keratoconus progressing. Results are best when KC is detected at the earliest stage; ideally even before the patient is aware of visual problems.

How is this possible? Via the use of Corneal Topographers to map very accurately the 3D corneal shape.



The Aarons Policy:

Advancing clinical care not just sales!

Prior to Cross-Linking, waiting for symptoms to appear was acceptable. With the introduction of Cross-Linking this is no longer the case. The earlier we detect KC the better the visual outcome. 'Retinoscopy', vital for accurate prescribing and preliminary diagnosis of keratoconus, is time consuming. Apparently for refraction speed many practices no longer do this essential technique. It remains absolutely a routine technique at Aarons. Further, we have made Corneal Topography available as a screening process for all young people. This 3D mapping of the cornea allows the earliest detection of KC before symptoms arise.