

Improving vision, improving life

Keratoconus solutions strengthens the cornea and improves the shape, which in turn improves the vision of people wearing spectacles or contact lenses.



What is Keratoconus (KC)?

KC is a thinning disorder of the cornea causing abnormal bulging of the cornea. As the cornea progressively thins, the patients shortsightedness and astigmatism increases. This leads to frequent spectacle change.

KC progression can be successfully stopped with Corneal Collagen Cross Linking procedures. Patients often complain of progressive visual deterioration, with ghosting and distortion of images. This makes daily activities like reading and driving difficult.

Once the KC has stabilized there are therapeutic options to improve vision and these include: spectacles, contact lenses, intra corneal ring segments, implantable collamer lens and therapeutic PRK.

KC PROGRESSION WITH IMPAIRMENT OF VISION

Regular cornea Vision simulation



Thin KC cornea



Irregular KC cornea



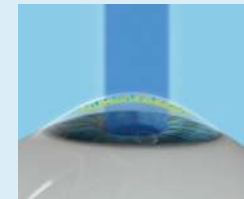
Corneal Collagen Cross Linking (CXL)

The first step in treating KC is to stop its progression. CXL is known to be a safe and effective treatment in this regard. If your previous CXL has failed, you may have had an ineffective protocol.

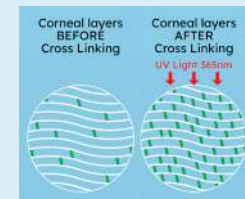
- ✓ Strengthens cornea
- ✓ Prevents progression



STEP 1
Vitamin drops are applied to soak the cornea collagen.



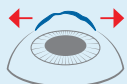
STEP 2
A UV light is applied which triggers the cross linking section.



STEP 3
More bonds/ links are created between collagen fibres, strengthening the cornea and preventing progression.

Solutions for a highly irregular cornea: Intra Corneal Ring Segments (ICRS)

Although Keratoconus can be stabilised with Corneal Cross-linking, some patients are still contact lens intolerant after the treatment and still have poor vision. If you are contact lens intolerant or not happy with your vision, you may have a very irregular cornea. ICRS may be a solution for you. It can help improve your corneal shape resulting in a better fitting contact lens and improved corrected vision.



In this procedure plastic ring transparent segments are inserted in the cornea to flatten the cone. This is a safe and reversible procedure. Also suitable for patients who have had previous corneal transplants.



INDICATIONS

Contact lens intolerant
Poor best corrected vision < 0.5

HOW IT IS INSERTED

A femto laser precisely creates the tunnel for ICRS placement.

RESULTS

Cornea shape becomes more regular and cone is flattened.

BENEFITS

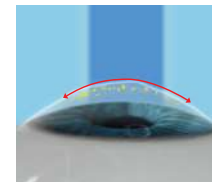
- ✓ Improves contact lens fit and tolerance.
- ✓ Reduces spherical equivalent.
- ✓ Improves vision with contact lenses or glasses.
- ✓ Low risk as can be reversed.

Therapeutic Laser

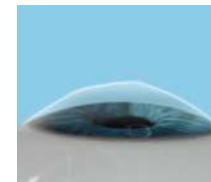
A laser procedure to further improve corneal shape and vision.



STEP 1
Cross section of a keratoconic cornea.



STEP 2
Excimer laser ablation.



STEP 3
Partially normalised cornea.

KC patient journey



STEP 1
Corneal Collagen Cross Linking (CXL).



STEP 2
Intra Corneal Ring Segments (ICRS) or Therapeutic Laser.



STEP 3
Contact lenses or spectacles.



Get in touch

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