

What are intracorneal rings?

Intracorneal rings are micro-thin inserts of varying thickness composed of a special clear, biocompatible plastic that has been safely used in contact lenses and cataract surgery for more than fifty years.

The rings are designed to reinforce the cornea and reshape the surface of the eye, reducing the size and improving the cone shape of the cornea. By improving the shape of the cornea, patients suffering from keratoconus can improve the fit of their contact lenses, improving their vision. In some cases, the vision may improve enough for it to be no longer necessary to wear contact lenses.

Intracorneal rings are perfectly tolerated by the eye and there is no risk of rejection. Use of these rings may improve the structural integrity of the eye, and reduce the need for a corneal graft, which is a more major operation.

What are the indications for the implant?

- Moderate to severe Keratoconus

Although developed for low myopia, the device is mostly used for keratoconic patients of any age with an evolving condition and an intolerance to contact lenses or with sharp distortions in the shape of the cornea, which can occur after corneal transplants.

The procedure

Implantation of intracorneal rings

The procedure is performed using a highly precise laser. This ensures very accurate placement, maximising effect and reducing risks of complications.

Before the procedure

A thorough pre-operative examination will be carried out and will include a variety of ophthalmic tests, general

medical tests and a review of your medical history.

During the procedure

Anaesthetic drops are used to numb the eye. The eye lids are held open throughout the procedure by the use of an instrument called a retractor to prevent blinking.

Step 1: The laser is used to create a 1mm incision and separate channels within the substance of the cornea.

Step 2: Intracorneal rings are inserted into the channels one at a time. The eye is stabilized and the rings rotated into place.

The cornea has several layers to it, like a pad of paper. Making a place for the intracorneal rings is like separating two pages just enough to create a space. The procedure is safe and quick.

After the procedure

You may have the sensation of grittiness in your eyes for a few hours and perhaps slight irritation for a day or two. Vision improvement takes longer and can take several months following the procedure.

You will need to use eye drops for a few weeks following the procedure. You will need a follow-up visit to the Corneo-Plastic Unit soon after the procedure and again at one month, three month and six month intervals.

Further information:

For further information about the risks of anaesthetics please see the booklet 'You and your anaesthetic' or visit the Royal College of Anaesthetists' website: www.rcoa.ac.uk

Further queries

Should you have any further questions or concerns please do not hesitate to contact us:

Eye Clinic Reception: 01342 414470 / 4166
(Appointments only or rearranging appointments)

Eye emergencies only: 01342 306782
between 09.00 – 17.00

Ross Tilley Ward: 01342 414451 **Week-ends, Bank holidays and Out of hours**

Switchboard: 01342 414000 **Week-ends, Bank holidays and Out of hours**

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Corneo-plastic Unit
Issue 5 – Ref: no. 0354
Approved by the Patient Information Group
Print October 2023 - Review October 2026

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