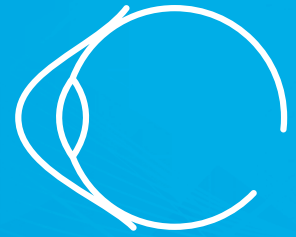


# CAIRS TRANSPLANT



**CAIRS (Corneal Allogenic Intrastromal Ring Segments) is the latest, minimally invasive surgical procedure designed to treat corneal conditions such as keratoconus, pellucid marginal degeneration and post-LASIK ectasia.**

These conditions lead to distorted vision due to the thinning and bulging of the cornea. By implanting a donor corneal tissue strip(s) into specially created channels in the patient's cornea, CAIRS reshapes and strengthens the cornea, improving vision and stabilising its structure. This innovative technique is transforming the treatment of keratoconus and related disorders.

## Who is suitable for a CAIRS procedure?

CAIRS is ideal for patients suffering from keratoconus, a condition where the cornea thins and bulges into a cone shape, causing severe visual distortion. It also benefits individuals with pellucid marginal degeneration, where thinning of the lower cornea leads to irregular astigmatism, and post-LASIK ectasia, characterised by corneal weakening following refractive surgery.

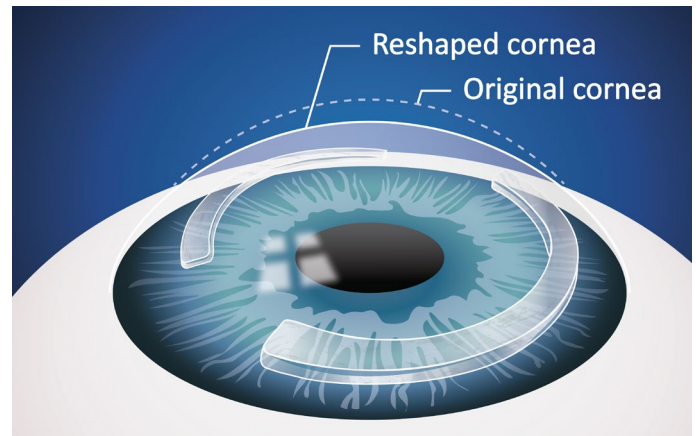
This procedure is particularly useful for those who cannot tolerate contact lenses or have not achieved success with treatments like corneal cross-linking or synthetic corneal implants.

## What does the procedure involve?

Your ophthalmologist will begin with a comprehensive preoperative assessment, including detailed eye examinations and corneal topography to evaluate your corneal shape and thickness.

The CAIRS procedure is performed in two stages.

- 1. Creation of channels in the cornea:** The first part of the procedure is performed in the refractive suite using a femtosecond laser. You will be given anaesthetic drops to numb your eye and a mild sedative for your comfort.
- 2. Insertion of the donor corneal tissue:** The second stage of the procedure is performed in the day hospital where local anaesthetic and IV sedation are administered. Arcs



of predetermined length and thickness of donor corneal tissue are carefully inserted into the channels to stabilise and reshape the cornea.

Postoperative care includes antibiotic and anti-inflammatory eye drops to support healing and prevent infection.

## Benefits of CAIRS

CAIRS offers numerous benefits that are increasingly making it a preferred choice for treating progressive corneal conditions. As a minimally invasive procedure, it requires only small incisions, ensuring quicker recovery times compared to full corneal transplants. The reshaping of the cornea using CAIRS transplant segments has the potential for significantly improving vision and reducing dependency on corrective lenses.

Additionally, by using biocompatible donor tissue, the procedure minimises risks of rejection associated with synthetic implants. Using donor tissue reduces the risk of haze and extrusion compared to synthetic implants and provides a highly customisable treatment tailored to each patient's unique corneal anatomy.

## Risks of CAIRS

All medical and surgical procedures carry some risk. This is also true for CAIRS transplants, which are generally considered a safe operation. There are small risks of infection, scarring or implant displacement, which might require surgery to make further adjustments.

There is also the possibility of over or under-correction of the corneal shape change, which may require corrective glasses, contact lenses or further treatment to achieve the desired level of vision.

Following the postoperative care plan minimises the risk of infection.

Some patients may experience visual disturbances like glare or halos, particularly at night. It is essential for to have a comprehensive discussion about the benefits and the risks with your ophthalmologist to make an informed decision.

## Recovery from CAIRS

Recovery from CAIRS is typically quick – most patients resume normal activities within two to three days. Visual improvements are noticeable within weeks, while full stabilisation occurs over several months.

Postoperative care includes using the prescribed eye drops and attending regular follow-up appointments to ensure proper healing and confirm that the implants remain correctly positioned.

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## Cost of CAIRS

Patients are advised to consult with their ophthalmologist to obtain a personalised cost estimate for this procedure. Depending on the level of cover, private health insurance policies will usually cover the majority of the cost of the CAIRS procedure. Please contact your health fund to confirm your level of cover and if any waiting periods apply.

Uninsured patients can choose to self-fund their surgery, noting the significant expense of donor corneal graft material.

## Suitability for a CAIRS procedure

To find out if a CAIRS transplant is an option for you, it is best to schedule an appointment with an ophthalmologist who performs this procedure. Your specialist will perform some eye tests and have a discussion with you about the benefits and risks of surgery.

