

Eye Unit

Corneal Graft

Where and what is the cornea?

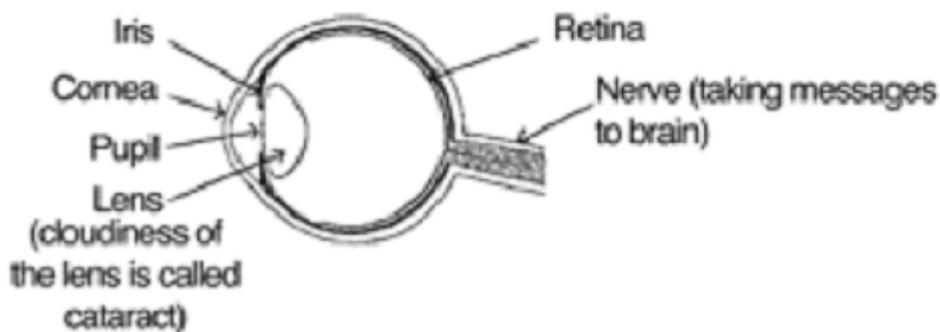
The cornea is the curved window at the front of the eye. It is in front of the iris, the coloured part of the eye, and the pupil, the round black hole in the centre of the coloured part. (Fig. 1 & 2)

The cornea helps to focus and transmit light as it passes through the eye to be focused on the retina at the back of the eye.

Figure 1: Front view of the right eye



Figure 2: Side view of the eye



What is a corneal graft?

A corneal transplant, graft, is the way of removing your damaged cornea and replacing it with a healthy cornea taken from the eye of a suitable donor.



Why do I need a corneal graft?

The usual reason is to help you to see better. If the cornea is hazy or the wrong shape and you can no longer see through it, a corneal graft may be appropriate. For some people the operation may be advised to alleviate chronic pain or irritation of the eye.

Sometimes the operation may be advised to save the eye, for example where severe corneal ulceration/scarring occurs.

Where will my new cornea come from?

They are donated by people who have expressed a wish that, following their death, their corneas can be used to help others.

Can I catch any disease from the transplant?

The medical history of the donor is checked to exclude the following conditions:

- Rabies
- Creutzfeldt –Jakob disease CJD
- Diseases of the nervous system of unknown cause

Blood is taken from all donors to exclude:

- Hepatitis B
- Hepatitis C
- AIDS virus

While the cornea is in the Eye Bank it is very carefully examined to reduce the risk of infection with bacteria and fungi: as a result of all these checks the risk is tiny.

How good will the vision eventually be?

This will depend on the particular features of your eye, but your vision will not be perfect in the operated eye. How much you depend on this eye will be influenced by how good the other eye is.

Patient Information

When will I notice any improvement in my vision?

Each person varies in their response to the operation. Some people notice a big improvement early on, whereas in others the vision will improve gradually over several months.

Will I need glasses afterwards?

In a small minority of cases it is possible to see quite clearly without glasses, however, most people usually need contact lenses to get the best vision and some manage with glasses. How long after your operation these are organised depends on a number of things including when the stitches are removed.

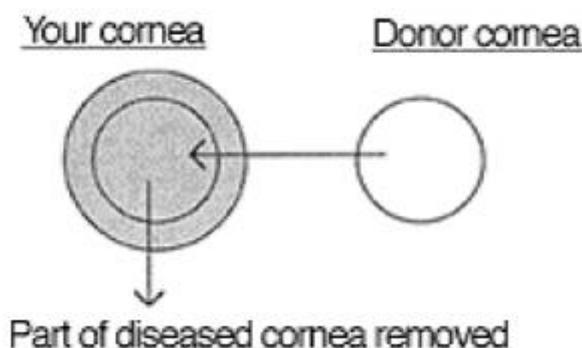
Will I be awake during my operation?

Most corneal graft operations are carried out under general anaesthetic. Before the operation you will be asked to attend for a pre-operative assessment. The nurse will take a full medical history and decide whether any necessary tests need to be done prior to surgery. You will be given all the information you need about your stay at this visit.

What actually takes place during the operation?

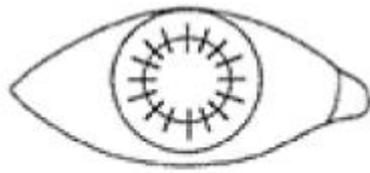
A circular portion is removed from the centre of your cornea. A similar circular portion is then taken from the centre of the donor cornea (this is the corneal graft) and it is placed in the hole in your cornea and sutured into place with very fine stitches. (Fig. 3)

Figure 3: Transfer of Donor Graft to Recipient



You will now have a new corneal graft replacing the central part of your cornea. (Fig. 4)

Figure 4: Corneal Graft with sutures (which can only be seen with a microscope)



How long does the procedure take?

A routine corneal graft operation usually takes about an hour. If any other surgery is planned, such as cataract surgery, then it may take longer. This is only a guide as each patient is different.

How long will I be in hospital?

Usually you will be admitted on the day of surgery and can go home the day after. Occasionally it may be necessary to keep patients in for a little longer to allow the eye to settle further.

What will it feel like the day after surgery?

Your eye may feel irritable and some discomfort is expected, this should settle down within a few days. Significant pain is not common so if your eye is painful then you should contact the Eye Department. We would expect your vision to be blurred but this will slowly improve. The rate of improvement varies because the healing of the corneal transplant varies from patient to patient.

Will I need drops after the operation?

You will have eye drops prescribed. You will need to use them frequently for the first few days. After this you will use them less often, but will continue to use drops for several months, and some patients need them for life. It is very important that these drops are put in as prescribed.

What happens to the stitches?

The stitches holding the graft in place can remain in for about 18 months. When they are removed the vision may alter and sometimes the stitches need to be adjusted to get the best possible result.

New techniques for corneal transplantation

Recently in selected cases we have been performing what is called Lamellar Corneal Transplantation. There are two types:

1. Deep anterior lamellar which is sometimes used for Keratoconus and other disorders where there is an abnormality with the front of the cornea.
2. Endothelial which is sometimes used for conditions where there is a problem with the small cells that line the inner most part of the cornea.

Your surgeon will advise you about the various advantages and disadvantages of lamellar versus full thickness corneal transplantation.

Is there anything I should avoid after the operation?

You should plan to take up to a month off work. Swimming should be avoided for at least a month and you should never do contact sports, for example:

- Rugby
- Football
- Boxing

Otherwise try to live as normally as possible.

Are there any complications?

Serious complications are rare but they include:

- Rejection
- Infection
- Haemorrhage

Success rates vary but are generally very good. However, prompt attention on your behalf will ensure that your graft can remain healthy.

After the operation the corneal nurse will see you and give advice on recovery, including signs and symptoms of rejection and emergency contact numbers.

Patient Information

Rare complications

Rare complications include:

- Failure of the new tissue to start working again, or it may not work for long enough
- Wound leakage
- Recurrence of the original disease
- Cataract
- Glaucoma

Care of your Corneal Graft

Although the success rate is high in keratoconus, it is less so in other conditions. As with any form of transplant surgery, there is always the risk of rejection

Remember grafts can reject at any time, although rejection is less common after six months. Prompt action on your behalf may safeguard your cornea.

Warning Signs of Rejection

Think **RSVP**

R increased redness of the eye

S increased sensitivity to light

V decrease in vision

P persistent pain

If you have any of these signs please contact us, do not wait until your next appointment.

Contact numbers

Eye Ward 32	024 7696 5238	Weekends and evenings
Eye Casualty	024 7696 6627	Mon to Fri 8.30am – 5.00pm
Ophthalmic Pre op	024 7696 6531	Mon to Fri 8.30am – 5.00pm
Out of hours	024 7696 6531	Answerphone or Tel Ward 32

Patient Information

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact 024 7696 6627 and we will do our best to meet your needs.

The Trust operates a smoke free policy

Document History

Department:	Ophthalmic pre-op
Contact:	024 769 6613
Updated:	August 2019
Review:	August 2021
Version:	7
Reference:	HIC/LFT/748/08