



Royal Berkshire
NHS Foundation Trust

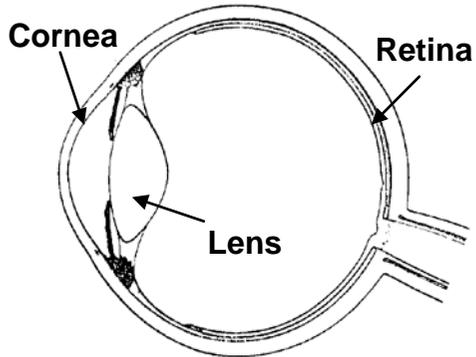
Corneal graft surgery (keratoplasty)

Information for patients

This leaflet outlines the function of the cornea and corneal graft surgery.

What is the cornea?

The cornea is the window at the front of the eye. In the normal eye the cornea is clear. Light is able to enter the eye through the clear cornea, pass through the clear lens to focus on the



retina at the back of the eye. When the cornea is deformed or damaged from injury or disease light cannot pass freely to the retina. The picture that the retina passes to the brain is not clear and sight is reduced.

What is a corneal graft (keratoplasty)?

The chief function of the cornea is to help focus and transmit light. When this is interfered with by irregularity, scarring or water-logging and cannot be helped any more by any other treatment (either eye drops, drugs, spectacles or contact lenses) a corneal graft may be performed to:

- Improve your sight
- Alleviate your pain
- Repair a perforation (if your cornea has ruptured)

In a corneal graft operation part of your cornea is removed and replaced with a similar piece of cornea from a donor eye. The types of corneal graft surgery are:

- Penetrating keratoplasty: the full thickness of the cornea is replaced;
- Deep lamellar keratoplasty: the anterior (front) 90% of the cornea is replaced;
- DSEK endothelial keratoplasty: the posterior (back) endothelial layer is replaced, with the rest of the cornea untouched.

Corneal donation

The donor cornea is taken from an eye which has been removed from a person who has died. Many people donate parts of their body, including their corneas in order to help others after their death. The individual or their family consent to the use of the eyes for medical purposes after their death e.g. by carrying a donor card.

It is usually necessary to wait for some time until a cornea in the correct condition is available. This may mean waiting for someone to die for “material” to become available.

- Corneas are not taken from donors known to have infectious conditions. All donors are screened for AIDS or Hepatitis viruses before their corneas are used. The cornea is treated with antibiotic solution before being used for your operation. Unfortunately, not all conditions can be

detected, and it is not possible to guarantee that the donor cornea is free from infection. The risk of CJD (brain disease) from corneal grafting is unknown. Mr Leyland uses donor corneas from the NHS Blood and Transplant service which has rigorous procedures to ensure the best quality and safest corneal tissue.

Complications

Serious complications may occur following graft surgery (see the separate leaflet called 'Risks of corneal graft surgery'). Keratoplasty is a major eye operation and like all operations may be accompanied by complications including haemorrhage (bleeding in the eye) and damage to other parts of the eye. The period after the operation can be complicated by infection, rejection, glaucoma, cataract and retinal detachment, as well as other, less common complications.

The post-operative care of a corneal graft is critical to achieving the desired outcome of a clear graft with good vision. Therefore, it is essential that you keep your follow-up appointments, and seek prompt medical help should sudden or severe symptoms occur.

Aftercare

Eyedrops: Eye drops are very important after the operation in preventing infection, inflammation and other complications. We may ask you to put in eye drops for 12 months or more after the operation.

Rejection

Donor corneal grafts may be rejected by your body if your body recognises the foreign tissue and your immune system then tries to damage it. This is not an “all or nothing” condition, and provided it is diagnosed early enough it can usually be successfully treated. Please seek prompt medical advice if you experience one or more of the following:

- Decrease in sight;
- Redness of the eye;
- Pain.

Rejection can occur at ANY time after a corneal graft, even years later after your discharge from Outpatients. Rejections occur more often in the first year after the operation following a change of treatment, after removal of stitches or as a result of eye infection or injury.

Failure to obtain the correct treatment early can result in permanent loss of sight and the need for a repeat operation which carries a higher risk of failure than the first.

What are the chances of my graft being successful?

The success rate is good (e.g. approximately 90% - 9 out of 10 - corneas grafted for keratoconus (a condition where the cornea thins and bulges out of shape) are still clear 10 years after surgery) but it varies depending on the reason why you need a corneal graft and your general health.

Further information

www.nhs.uk/Conditions/corneatransplant/Pages/Introduction.aspx

www.rcophth.ac.uk/page.asp?section=372§ionTitle=Specific+Questions+Related+to+Corneal+Disease

www.rnib.org.uk/eye-health-eye-conditions-z-eye-conditions/corneal-transplantation

www.eyecaretrust.org.uk/eye_information_main.php

Useful contacts

If you have got a minor eye problem, please seek advice from your GP, optician or pharmacist. If you think your problem might be urgent, please attend Eye Casualty.

Clinical Admin Team (CAT 2 Reading)	0118 322 7169 rbbh.CAT2@nhs.net
Clinical Admin Team (CAT 2a Windsor)	01753 636394 rbbh.CAT2a@nhs.net
Eye Casualty (Reading):	Open Mon-Fri 9am to 5pm; Sat & Sun & bank holidays 9am-12.30pm; Closed Christmas Day and New Year's Day
Eye Casualty: Prince Charles Eye Unit (Windsor):	Mon-Fri 9am to 5pm; Sat 9am- 12.30pm
Dorrell Ward (Reading):	0118 322 7172 (24 hours a day)
Eye Day Unit (Reading):	0118 322 7123 (Mon-Fri 7am to 6pm)

Visit the Trust website at www.royalberkshire.nhs.uk

This document can be made available in other languages and formats upon request.

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