

# **Information you need to know before having Corneal Graft surgery**

**Information for patients**

This leaflet has been produced to give you some general information about the problems you have been having with your eyesight. It is not possible to provide specific information about the conditions that affect the cornea that is accurate for everyone in just one leaflet. Your surgeon will give you further information about your particular problem. Please feel free to ask any questions.

You should also be given leaflet on the day of surgery about what happens after you have had the Corneal Graft surgery. If you are not given one before your discharge, please ask your nurse as it contains useful information about your after care.

## **What is a Cornea?**

The cornea is a vital part of the front of the eye which protects all the structures inside your eye and helps you to see. A normal cornea is spherical in shape i.e. round like a ball and is clear. Light passes through your cornea to the lens in your eye. The lens allows images to pass through to the light sensitive membrane at the back of the eye, known as the retina. This sends messages to the brain via the optic nerve which makes sense of what you are looking at.

Certain conditions cause the cornea to become misshapen and look like a cone and /or become thickened and cloudy. This causes problems with eyesight. Your eyes may be over sensitive to light, especially in the morning. You may experience soreness and irritation in your eyes along with blurred vision. (Some people even develop ulcers on their cornea). The symptoms will/may become gradually worse and can lead to you becoming blind.

## **What is a Corneal Graft?**

A corneal graft is an operation that replaces an abnormal cornea with a healthy one. There are two ways this can be done. If any part of your own cornea is still healthy the surgeon will only do a partial graft. This is known as a partial thickness or Lamellar Graft. If your own cornea is completely damaged then the surgeon will have to replace it all. This is known as a full thickness or Penetrating Graft. Your surgeon will explain which type of surgery is best for you.

However, although a partial graft may have been planned this may need to be changed to a full thickness graft if your cornea has continued to get worse up to the day of surgery. Please feel free to ask any questions if you are unsure about anything.

### **Where does my new cornea come from?**

Your cornea will have come from someone who has expressed a wish that their corneas be used to help someone else to see, after their death. People who offer their organs in this way are called donors, and transplant operations would be impossible without their generosity. The donor's cornea will have been thoroughly tested and kept in an Eye Bank for a period of time, before being sent to the hospital where the operation is to be carried out. The Eye Bank is responsible for ensuring that your new cornea is in good condition, and also performs checks to try and ensure that you will not catch any form of infection from the new cornea.

### **Will I need an anaesthetic?**

The operation is usually done under a general anaesthetic although if your health is poor it may be possible to use local anaesthetic. For further information please refer to "You and Your Anaesthetic" patient information leaflet.

## What are the benefits?

This operation is normally done to help you to see better. For some people the operation may be advised to help in the treatment of chronic pain and irritation in the eye. In that case, the operation may be worthwhile even if it does not greatly improve your vision. Rarely, the operation may be advised in order to save the eye, for example if there is very severe corneal ulceration. It is very important that you understand why it is being recommended in your case, and what it is hoped the operation will achieve.

## What are the risks?

**Failure of the endothelium** (or decompensation) means that the graft no longer has enough cells on its inner surface to keep it clear, and so it must be replaced.

**Recurrence of the original disease** can happen to people whose corneal graft was done because of a genetic disease (corneal dystrophy) or an infection (viral keratitis).

**Infection** causing ulceration leading to scarring may occasionally cause graft failure.

**Unacceptable refractive result** means that the graft cannot be made to focus properly, usually because of unequal curving of the cornea. This may be referred to as distortion of the cornea or astigmatism. Such a graft may have to be considered as a failure, and replaced or require further operations to correct the problems, such as a misshapen cornea, long sightedness or not being able to focus properly.

Minor complications happen from time to time but do not usually affect the result. They include brief periods of raised pressure or leaks of fluid between the stitches from within the eye. These generally settle within a few days of the operation.

However, occasionally it is necessary to replace a stitch or put in an extra one, if a leak doesn't seal up on its own. Some stitches may become loose or break. If this happens to you it will feel as though you have got something in your eye and your eye may become red and inflamed. **These should be removed by an eye specialist as soon as possible as they can increase the risk of rejection.**

Some people may also develop a cataract. This is when the lens of your eye becomes cloudy. You will need an operation to replace the faulty lens.

**Major** complications of the operation itself are rare, but when they occur they can threaten sight or even possibly cause the loss of the eye. They include bleeding within the eye and infection entering the eye. They may require further operations if they occur.

**Disease transmission** - is a possible complication of any transplant - in other words, the recipient could possibly catch a disease from the donor. All corneal donors are tested for the viruses that cause hepatitis and AIDS. However, there is no test which will detect the germ which causes Creutzfeld-Jakob disease (CJD) and unknown viruses may also exist for which there is currently no test. The risk of catching such a disease is unknown, but likely to be very small.

**Rejection** - is a major complication, which can affect any transplant. It happens when your body detects that a piece of tissue from another person has been put into you and your immune system then tries to destroy it. Some patients are at a much greater risk than others.

Rejection can start as soon as two weeks after a graft is put in, but is commonest several months afterwards, and may occur years later. The quicker rejection is diagnosed the better the chance of recovery.

The signs of the transplant rejecting could be a combination of the following –

- Pain
- Red eye
- Blurred vision
- Sensitivity to light.

Rejection rates of corneal transplants vary depending upon what type of eye condition you have. **If you ever feel that there is a problem you are advised to attend the acute eye clinic immediately.**

If rejection is found, it is treated with very frequent, strong steroid drops, and occasionally with steroid tablets or drip feeds. Most corneal grafts do recover from their rejection attack if you attend the eye clinic promptly but a lot of patients will need to go on with the steroid drops for a long time afterwards, sometimes permanently.

Patients who are in the “high rejection risk group” may be advised to have a “tissue matched” graft, which has a tissue type as similar as possible to their own. However, this is never an exact match and some patients have to wait a long time for a suitable cornea to become available. Tissue type is determined by a blood test. The degree of benefit from tissue matching is unclear but is the subject of further research at present.

### **What are the alternatives?**

Eye drops may be beneficial to patients with mild corneal conditions i.e. early Fuchs’s dystrophy. Contact lenses or other minor procedures can be helpful in mild forms of keratitis which is inflammation of the cornea.

### **What do I need to do before I come in to hospital?**

- You will need to fast for the general anaesthetic. Please follow the fasting instructions given to you at your pre-assessment and in the “Patient Information leaflet/letter” **otherwise your procedure will be cancelled.**
- **Take your tablets and medication as normal. (Including eye drops). Two weeks prior to surgery you should liaise with your GP and inform the Waiting List office if you are taking any drugs that increase the risk of bleeding after surgery. These include aspirin, warfarin, clopidogrel, dipyridamole (sometimes called**

**persantin) and anti-inflammatory drugs such as ibuprofen. Your GP may advise you to stop taking these for a short time prior to surgery.**

- Bring any drops/medication you are currently taking, along with your glasses and sunglasses.

- Have the following ready at home to use after your surgery;

Cotton wool pads, tissues and mild painkillers.  
These are available from most chemists

- **Please arrange for someone to take you home as you will have blurred vision afterwards.**

Alternatively you can go home in a taxi if accompanied by a responsible adult.

- Wear loose, comfortable clothing, please do not wear make-up especially mascara.

- Do not bring in any unnecessary money or valuables

## **What happens on the day of surgery?**

On arrival you will be asked to wait in the Day Case Reception area after which you will be asked to go to the day unit where your nurse will check that your personal details in the notes are correct and prepare you for theatre.

You will be seen by your surgeon who will explain what the operation involves and answer any questions. You will be asked to sign a consent form (if you have not already done so in the outpatient clinic). You may have to wait for a while. When it is your turn you will be taken to the anaesthetic room and then into the operating theatre.

The operation usually takes between one and two hours. (If you have a cataract that needs removing it will be done at the same time). When your surgeon starts to operate he/she will decide whether you need a partial or full thickness graft. During the operation the surgeon removes a circular piece of your cornea and replaces it with a similarly sized piece of the donor's cornea, which is stitched into place.

Very tiny stitches (known as sutures) are put into the cornea to hold the graft in place. They can also affect its shape and therefore the way the eye focuses. They do not dissolve and will eventually need to be removed. Two main patterns of suturing are used - interrupted (or individual) and continuous. Some surgeons use both methods combined.

Your surgeon will advise you when these will need to be removed. This is normally done in the operating theatre under a local anaesthetic i.e. whilst you are awake.

## **Who do I contact for further help and advice?**

In the first instance please contact the Day unit where you had your surgery.

### **If your operation was at: Pinderfields Day/Short Stay Unit**

Telephone: **01924 541854**

### **Pontefract Day Unit**

Telephone: **01977 747547**

### **Boothroyd Day Unit (Dewsbury)**

Telephone: **01924 816132**

**Eye Condition advice telephone: 01924 816027**

Waiting List office (operations) 01924 214152

If you have a problem out of these hours please telephone the main hospital number 0844 811 8110 and ask for Pinderfields, Pontefract or Dewsbury Accident & Emergency Department depending upon where you had your operation.

Alternatively you can seek advice from your own optician or GP.

### **Other useful information can be found at:**

NHS Choices - [www.nhs.uk](http://www.nhs.uk)

We are committed to providing high quality care. If you have a suggestion, comment, complaint or appreciation about the care you have received, or if you need this leaflet in another format please contact the Patient Advice and Liaison Service on: 01924 542972 or email: [pals@midyorks.nhs.uk](mailto:pals@midyorks.nhs.uk)  
To contact any of our hospitals call: 0844 811 8110  
To book or change an appointment call: 0844 822 0022

**1279e**

Updated March 2014  
Review Date 2017



**SMOKE FREE**  
hospital

**cleanyourhands<sup>®</sup>**  
campaign

