

# Penetrating Keratoplasty

Ophthalmology

## Introduction

This leaflet is for patients advised that they need to undergo a corneal procedure called Penetrating Keratoplasty (PK).

## What is PK?

PK is a corneal graft / transplantation that involves removing the damaged part of the cornea and replacing it with a similar sized healthy cornea from a suitable donor. The donor will be a person who has (or whose family has) given permission for their corneas to be used for medical purposes after their death.

## What is the cornea?

The cornea is the clear window of transparent tissue at the front of the eyeball through which light is focussed on the innermost layer of the eye (retina).

## Why do I need a corneal graft / PK

Most grafts are performed to remove the haziness involving the centre of the cornea. The most common reasons for haziness in the cornea are:

1. Resolved corneal ulceration leading to corneal scars
2. Fluid collection related to a poorly functioning inner layer of the cornea (endothelial dysfunction)
3. Irregular corneas related to a condition called Keratoconus
4. Corneal haziness related to inheritable genetic conditions.

## What does the operation involve?

The surgery is usually carried out under a general anaesthetic which means you will be asleep during the procedure.

A small circular area of your central cornea, typically varying 7 to 9mm in diameter will be removed and a similar sized donor cornea is then sutured into place using very fine sutures (stitches).

**The prevention of infection is a major priority in all healthcare and everyone has a part to play.**

- Please decontaminate your hands frequently for 20 seconds using soap and water or alcohol gel if available
- If you have symptoms of diarrhoea and/or vomiting, cough or other respiratory symptoms, a temperature or any loss of taste or smell please do not visit the hospital or any other care facility and seek advice from 111
- Keep the environment clean and tidy
- Let's work together to keep infections out of our hospitals and care homes.

## Consent

We must seek your consent for any procedure or treatment beforehand. Your doctor will explain the risks, benefits and alternatives where relevant before they ask for your consent. If you are unsure about any aspect of the procedure or treatment proposed please do not hesitate to ask for more information.

We are required to share your information with the NHS Blood and Transplant Special Health Authority (NHSBT) who supply donor corneas to comply with the Law and to ensure high quality transplant material. However, to share this information we require your consent to do so.

You should be aware that any tissue removed as part of your treatment may be retained and used for diagnostic purposes as well as teaching, education, quality assurance, audit and research.

## What are the risks?

- Life-long risk of graft rejection
- Life-long risk of graft failure
- Glaucoma (raised pressure inside the eye)
- Cataract can form after surgery
- Decreased vision
- Serious eye infection (less than 1 in 2000)
- Loss of vision
- Further surgery may be required in a small number of cases.

## What are the benefits?

Improved vision.

## What are the alternatives to this procedure?

The only alternative would be not to have the surgery, but your vision would not improve and could deteriorate even further.

## What happens after you are put on the waiting list?

Patients having this procedure do not normally need to wait for a matching donor. Therefore, after your name is put onto the waiting list, your surgeon's waiting list coordinator will contact you with a date for your operation. This ensures that you, your family and your employer are given reasonable time to make some arrangements.

If you work, you will need to take at least two weeks off after surgery, depending upon the type of work you do. If your job involves lifting or operating heavy machinery, or if you work in a very dusty environment, it may be advisable to take a longer period of time off work.

You will be invited to attend a pre-operative assessment appointment prior to your surgery.

## What can I expect immediately after surgery?

Immediately after the operation your eye will be covered with a pad and a protective plastic eye shield. You will usually be discharged the same day.

A general anaesthetic can make you feel very tired and perhaps a little nauseated (sick) for the 24 hours.

It is advisable to have someone stay with you for the first 48 hours following surgery.

It is normal to feel some eye discomfort and/or itchiness for a few days. Paracetamol or other pain medication can be taken as directed by your surgeon.

## What do I need to do following the procedure?

- It is normal to have a small amount of discharge on your eyelids, especially first thing in the morning. As your eye heals, the amount of discharge should decrease
- Each morning and whenever you find necessary, you should gently cleanse your eyelids, using warm water and cotton wool balls
- Wipe the lids from the inside corner of the eye towards your ear
- You should protect your eye from external injury by wearing protective glasses
- When sleeping, you should tape a shield over the eye. Your surgeon will advise you when this is no longer necessary.

## Post operative drops

You will be taught how to instil eye drops. Usually this consists of:

- A steroid drop which needs to be instilled frequently or as per instructions by the surgeon
- An antibiotic treatment which usually needs to be instilled 4 times per day.

After 4 weeks the antibiotic is stopped but the daily steroid drops are continued over the next 12 to 24 months. It is absolutely essential that the steroid drops be continued until stopped by your surgeon. Occasionally, you will need other drops in addition to the steroid drops. If the drops run out, it is imperative that you approach your GP to get further prescription to ensure continuity. Stopping the steroid drops (unless otherwise indicated) could lead to irreversible rejection and loss of sight.

## Post operative follow-up

Generally you will be expected to attend hospital for follow up appointments on a regular basis following surgery.

Please do let us know if you have not received a follow-up appointment within 2 - 3 weeks

## Post operative activity

Because the sutures are very fragile, and the wound takes time to heal, you should follow these guidelines:

1. Avoid contact sports and maintain a relatively sedentary lifestyle, for example, reading, watching T.V, going out for gentle walks rather than power walking. Refrain from cycling or gym activities for 4-6 weeks
2. Do not directly bump or rub the eye
3. Avoid straining – do not push or lift heavy objects (nothing more than 10 lbs) for 6 weeks
4. Do not drive until advised by your surgeon
5. Avoid lying on the operated side
6. Avoid becoming constipated – take laxatives as needed
7. Avoid getting water in your eye; for the first two weeks, have a bath rather than a shower, and have someone else shampoo your hair if possible. After two weeks, you may shower and shampoo your own hair
8. Avoid environments that may cause irritation to your eye, for example, noxious fumes, chemicals, dust
9. You may bend over slowly and carefully, taking care not to bump your eye.

## What to do if you think you have a problem?

Your vision should gradually improve after the operation, but will not be completely functional until healing occurs, which could take up to 12 months.

You should contact us immediately if you experience any of the following symptoms:

1. Any significant change in your vision
2. Sudden increase in eye pain, foreign body sensation, redness or light sensitivity
3. Sudden onset of flashing lights or floaters in the operated eye
4. Any significant increase in discharge or watering of the operated eye
5. Graft rejection can occur at any time after surgery, even many years later. The earlier it is treated, the greater the chance of recovery.

It is important that you attend your follow-up appointments regularly and that you never run out of drops or stop your medication unless advised by your doctor. Please bring all your prescribed medications along with you, when you come for follow-up. If you have questions or worry, please do not hesitate to contact us on the following telephone numbers:

## Additional Information

If you have any further questions or need advice about your treatment do not hesitate, please consult your GP or your Eye doctor or Nurse Specialist at the Eye Department (ED) New Cross Hospital.

## Other useful contacts

### **Corneal Specialist Nurse**

01902 695831 or bleep 7207 via switchboard

Monday – Friday, 9:00am – 5:00pm

### **Eye Referral Unit**

01902 695805

Monday – Friday, 8:00am – 5:00pm

Weekends, 8:00am – 3:00pm

Outside these hours, please attend the main Emergency Department (ED) or contact NHS Direct on telephone number 111.

## English

If you need information in another way like easy read or a different language please let us know.

If you need an interpreter or assistance please let us know.

## Lithuanian

Jeigu norėtumėte, kad informacija jums būtų pateikta kitu būdu, pavyzdžiui, supaprastinta forma ar kita kalba, prašome mums apie tai pranešti.

Jeigu jums reikia vertėjo ar kitos pagalbos, prašome mums apie tai pranešti.

## Polish

Jeżeli chcieliby Państwo otrzymać te informacje w innej postaci, na przykład w wersji łatwej do czytania lub w innym języku, prosimy powiedzieć nam o tym.

Prosimy poinformować nas również, jeżeli potrzebowaliby Państwo usługi tłumaczenia ustnego lub innej pomocy.

## Punjabi

ਜੇ ਤੁਹਾਨੂੰ ਇਹ ਜਾਣਕਾਰੀ ਕਿਸੇ ਹੋਰ ਰੂਪ ਵਿਚ, ਜਿਵੇਂ ਪੜ੍ਹਨ ਵਿਚ ਆਸਾਨ ਰੂਪ ਜਾਂ ਕਿਸੇ ਦੂਜੀ ਭਾਸ਼ਾ ਵਿਚ, ਚਾਹੀਦੀ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

ਜੇ ਤੁਹਾਨੂੰ ਦੁਭਾਸ਼ੀਏ ਦੀ ਜਾਂ ਸਹਾਇਤਾ ਦੀ ਲੋੜ ਹੈ ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਸਾਨੂੰ ਦੱਸੋ।

## Romanian

Dacă aveți nevoie de informații în alt format, ca de exemplu caractere ușor de citit sau altă limbă, vă rugăm să ne informați.

Dacă aveți nevoie de un interpret sau de asistență, vă rugăm să ne informați.

## Traditional Chinese

如果您需要以其他方式了解信息，如易读或其他语种，请告诉我们。

如果您需要口译人员或帮助，请告诉我们。