

When will my stitches be removed?

Again, this varies from person to person, but generally stitches will not be removed until at least a year after the operation. The stitches will usually not be removed all at once, but a few at a time. This is not a painful procedure and can be performed under a local or general anaesthetic. The options will be discussed with you by your surgeon.

Will I need glasses afterwards?

In some cases, it is possible to see quite clearly without glasses. However, most people usually require glasses or contact lenses.

What problems should I seek advice about?

Graft rejection is our main concern. This rejection results from your immune system recognising the graft as being 'foreign'. If you experience any increasing symptoms of:

- Redness
- Sensitivity to light
- Disturbance of Vision
- Pain

You should contact us on the numbers below immediately. Do not wait until your next appointment, please contact a member of staff on one of the below numbers the same day:

For further advice please contact the eye clinic between 9am-5pm, Monday to Friday on 01744 646136/37 to speak to a nurse.

St Helens Hospital
Marshalls Cross Road,
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01744 26633

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Mersey and West Lancashire
Teaching Hospitals
NHS Trust

Corneal transplantation: endothelial keratoplasty (PK/DALK/DSAEK/DMEK)

Information for patients

If you need this leaflet in a different language or accessible format please speak to a member of staff who can arrange it for you.

اگر به این بروشور به زبان دیگر یا در قالب دسترس پذیر نیاز دارید، لطفاً با یکی از کارکنان صحبت کنید تا آن را برای شما تهیه کند.

Jeśli niniejsza ulotka ma być dostępna w innym języku lub formie, proszę skontaktować się z członkiem personelu, który ją dla Państwa przygotowuje.

Dacă aveți nevoie de această broșură într-o altă limbă sau într-un format accesibil, vă rog să discutați cu un membru al personalului să se ocupe de acest lucru pentru dumneavoastră

如果您需要本传单的其他语言版本或无障碍格式，请联系工作人员为您安排。

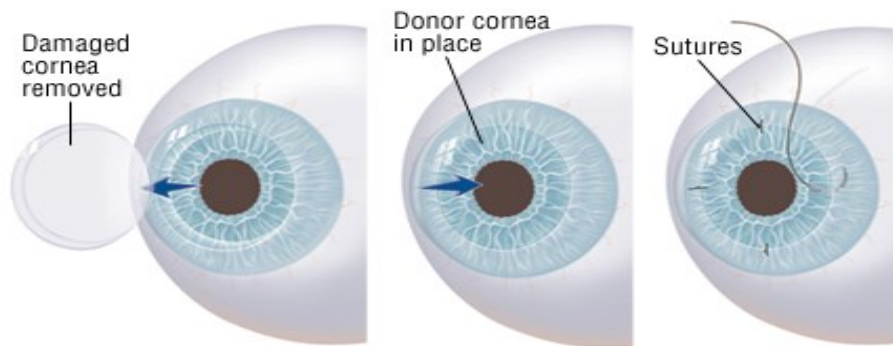
إذا احتجت إلى هذه النشرة بلغة أخرى، أو بتنسيق يسهل الوصول إليه، يرجى التحدث إلى أحد الموظفين لترتيب ذلك لك.

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Why would I need a corneal transplant?

The cornea is the curved window at the front of your eye that must be clear to enable you to see. It allows light to pass into the eye and provides focus so that images can be seen. Various diseases or injury can make the cornea either cloudy or out of shape. This prevents the normal passage of light, affects vision and may require a corneal graft depending on which layers are affected, either a full or partial thickness graft can be performed to remove the diseased part of the cornea.

The corneal graft is taken from the healthy eye of a person who has died, (where permission has been given by the person prior to their death, or more usually by the family) and implanted into the eye of a person with a hazy cornea.



The operation

Various types of operations are performed and this will depend on your condition, your surgeon will discuss this with you. The types of operation that can be performed are:

- Infection
- Graft rejection
- Glaucoma (raised pressure in the eye)
- Cataract formation
- Haemorrhage (bleeding) in the eye
- Damage to the iris (coloured part of the eye)
- Retinal detachment
- Graft failure leading to further surgery

These can all lead to loss of vision in the eye, or blindness and will be discussed with you by your surgeon.

How good will my vision be eventually?

This will depend on the particular features of your eye, but your vision might not be perfect in the operated eye. How much you depend on this eye, will be influenced by how good the other eye is. In a full thickness corneal transplant, approximately 75% of patients will achieve a visual standard, that meets the legal driving criteria.

When will I notice an improvement in my vision?

Each person varies in their response to the operation. Some notice a big improvement early on, whereas in others, the vision will improve gradually over several months. In full thickness corneal grafts, it can however, take up to two years before the maximum visual improvement is achieved. This time period is much shorter in DSAEK/DMEK operations, where the full improvement can be seen at up to 6 months.

How often will I need to be seen in outpatients after the operation?

Your first visit is usually a few days to a week after leaving hospital. We then increase the time between visits, often to four weeks, then two months and so on. Again, this will depend on each individual. You can expect to be seen at least six times in the first year.

Is there anything I should avoid after the operation?

You should plan to take up to one month off work. Generally take things easy for the first week or so after surgery. Swimming should be avoided for at least a couple of months and you should avoid contact sports for the rest of your life (e.g. rugby, football or boxing). Please discuss with your consultant's team before going back to sporting activities. Otherwise, try to live life as normally as possible.

Can I catch any diseases from the transplant?

The medical history of the donor is checked to exclude the following conditions: rabies, Creutzfeldt-Jakob Disease (CJD) and diseases of the nervous system. Blood is taken from all donors to exclude Hepatitis B, Hepatitis C and the AIDS virus. The cornea is very carefully examined to reduce the risk of infection with bacteria and fungi. As a result of these checks, the risk is very small. However, because of this minimal risk, once you have had a corneal transplant, you will not be able to be a blood or organ donor. If this concerns you or you have any further questions, please discuss with your surgeon.

What are the risks of surgery?

As with any operation, there are risks involved that can affect the outcome. These include:

- **Penetrating Keratoplasty (PK)**

This is also known as a full thickness graft. If the disease affects all the layers of the cornea, then a full thickness graft is required. A full thickness 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 placed into the hole in your cornea and stitched into place, using very fine stitches (sutures), usually there are 16 stitches in total. These will remain in place for at least 1 year, removal of the stitches is discussed later in this leaflet. You will now have a new corneal graft replacing the central part of your cornea.

- **Deep Anterior Lamellar Keratoplasty (DALK)**

This is also known as a partial thickness graft. A circular portion of the outer three layers of the cornea is removed from the centre of your eye, leaving the inner two layers intact. A similar circular portion is then taken from the centre of the donor cornea, removing the inner layer and it is placed into the hole in your cornea and stitched into place.

- **Descemet's Stripping Automated Endothelial Keratoplasty (DSAEK)**

This is also a partial thickness corneal graft, involving the inner layers of the cornea. A partial thickness corneal portion is removed from inside your cornea, leaving the outer layers intact. A similar circular portion is then cut from the donor cornea, removing the inner layers. This portion is then placed into your eye and floated into place, so that it will stick to your remaining cornea. A bubble of gas or air is also placed into the eye, to help the layers stick together. This operation requires you to lie **strictly flat** on your back for a few hours, not getting up at all.

For approximately the next 48 hours, you must then lie on your back as much as possible. During this time you may get up for meals and toilet purposes only, then you must lie flat on your back again.

- **Descemet's Membrane Endothelial Keratoplasty (DMEK)**

This is another partial thickness graft of the inner corneal layers. It is similar to a DSAEK however, only the thin, inner-most layer of your cornea is replaced (without any other supporting tissue known as corneal stroma). This layer is key in pumping out water from your cornea and ensuring it remains as clear as possible.

The donor tissue is delicately attached to the underside of your cornea, with the use of gas or air to secure it in place. Again, you will be required to lay on your back, to ensure the donor cornea remains in a good position.

In both a DSAEK and DMEK there is a risk of graft dislocation, where the thin layer of transplanted tissue moves from its current location. This may happen in approximately 10% of DSAEK operations and 20% of DMEK operations. Your surgeon will assess the eye should this occur, and they may inject more gas or air to re-attach the graft, if required. Depending on the size of the dislocation, this will either be done in clinic or back in theatre. The advantages of a DSAEK/DMEK over PK include fewer stitches, quicker recovery, smaller wounds and a lower risk of rejection.

What happens to the part of my cornea which is removed?

Most corneas are sent to a laboratory to be examined under a microscope for further information. Some corneal tissue might be kept for research into corneal disease. Your consent will be obtained and all research will be approved.

Will I be asleep for the operation?

The operation can be done either with you asleep (general anaesthetic) or when the eye has been numbed by an injection (local anaesthetic) or under sedation. Your surgeon will discuss these options with you.

How long will I be in hospital?

In most cases, you will be admitted on the day of the operation and can usually go home the day after your surgery. In some cases, you may need to stay in hospital for a couple of days after the surgery, depending on how you recover from the operation.

Medications

Please bring with you any medications, including eye drops and over the counter remedies in their original containers. Please also bring a print out of your current medicines, which can be obtained from your GP. This should be the most recent list and requested 2 weeks before hospital admission.

What will my eye feel like the day after surgery?

Your eye could feel irritable and uncomfortable, but this should settle in 5-7 days. Your eye might also water and you could be sensitive to light for a few days. Significant pain is not common.

If you experience severe pain, you must contact the eye clinic on the numbers provided on the back page.

Will I need drops after the operation?

You will need to put eye drops in frequently for the first few weeks; later they are used less frequently but may be used for many months or even lifelong. These eye drops, especially the steroid eye drops, are very important and must not be stopped unless you are told to do so by your consultant at the hospital. You will be given drops and instructions on their use, on your discharge from the hospital. You should get further supplies from your GP. Please contact us at the hospital if you are having problems obtaining your eye drops on the numbers provided on the back page.