



Clearer skies ahead

A guide for corneal transplant recipients

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Lions Eye
Donation Service
MELBOURNE

Information for corneal transplant recipients

The information in this brochure is intended to supplement, not substitute, the expertise and judgment of your ophthalmologist.

Your ophthalmologist should be consulted prior to making your decision regarding any eye treatment or surgery.

What is a cornea?

The cornea is the clear window at the front of the eye.

It allows light to enter the eye and does most of the focusing for the eye.

The cornea must be clear to allow light to pass into the inside of the eye.

It must also have a regular shape (like a dome) to properly focus the light.

Any disease that causes clouding, distortion or scarring of the cornea may interfere with vision.

Vision may then only be improved by replacing all or part of the cornea by a corneal transplant.



Understanding corneal transplants

What is a corneal transplant?

Corneal transplantation is an operation that involves replacement of an abnormal cornea, or part of the cornea, with all or part of a healthy cornea from an end-of-life eye tissue donor.

Corneal transplants may be full-thickness (penetrating keratoplasty) or partial thickness (lamellar and endothelial keratoplasty).

Your surgeon will determine what type of transplant and the type of tissue you need for your surgery.

Are there alternatives to corneal transplantation?

This depends on the specific condition affecting the cornea and the individual circumstances.

Your ophthalmologist will discuss these alternatives with you. If vision in your other (unaffected) eye is normal, then you may not feel that a transplant is necessary.

If your eye is painful but has little or no chance of improved vision due to other underlying eye conditions, there may be other less invasive surgical options.

Where do donor corneas come from?

The corneas used for transplantation are from humans who have donated their cornea at the end of their life.

They have been generously donated by the families of recently deceased relatives.

The Lions Eye Donation Service (LEDS) is responsible for the consent, retrieval, evaluation, preparation, and distribution of the corneas.

It stewards the donation, from the donor to the recipient.

LEDS works with the Commonwealth's Organ and Tissue Authority, the Australian Organ Donor Register, DonateLife and other local partners involved in end-of-life donation services, to identify, consent and recover the donation.

Furthermore, the Commonwealth's Therapeutic Goods Administration has licensed LEDS for the purposes of providing tissue for transplantation.

How safe is the donor cornea?

The medical histories of all donors are screened thoroughly before the corneas are removed.

The donor's blood is also tested for communicable disease, to reduce the chance of transmission of infectious diseases.

Corneas are removed from the donor using a sterile surgical technique and evaluated in a specialised laboratory at LEDS to ensure they are suitable for transplant. Unfortunately, it is impossible to guarantee that all infections are excluded.

The recovery, evaluation and processing of donations is conducted following strict guidelines and quality control measures to ensure the best possible outcome for recipients.

LEDS maintains a license with the Therapeutic Goods Administration, adhering to their standards, and follows the practice and donor screening recommendations of the Eye Bank Association of Australia and New Zealand.



How long do I have to wait for a corneal transplant?

The waiting time for a cornea transplant will depend on several factors, such as: the urgency of your condition, availability of the surgeon, the anaesthetist, the hospital where you will have your surgery, your own wishes, and importantly, an estimate on the availability of a donor

cornea for a particular date or purpose.

Corneal donor tissue does not need to be specifically matched to your blood type.

Therefore, in most cases, your surgery will proceed on the scheduled date.



As the cornea can only be stored for a certain period of time, it is possible, although relatively unlikely, that your surgery will need to be rescheduled at short notice if donor tissue is not available.

If your surgery is cancelled due to a lack of corneal donor tissue, you will be notified by your surgeon and another surgery date will be arranged.



How is the corneal transplantation performed?

The surgery may be performed under local or general anaesthetic.

Your surgeon or anaesthetist will inform you as to the most appropriate form of anaesthetic for you.

During the surgery, the diseased layer of your cornea will be removed and replaced by the corresponding layers of the donor cornea.

The procedure will likely take up to 90 minutes but will be much longer when you take into account the anaesthetic and recovery time.

At the conclusion of the procedure, a plastic shield is applied to protect the eye.

Your surgery may be performed as a day procedure, or you may be required to stay one or two nights in the hospital.

Your surgeon will discuss with you any specific requirements (such as lying on your back for a period of time) immediately after surgery.

What can I expect after the surgery?



While you may have some discomfort, it is unusual to have severe pain, and you should contact your surgeon if this occurs.

The eye will be red and tender.

A scratchy sensation is common, but this will gradually wear off.

You will be instructed on how to use the necessary medications, which may be

ointment, eye drops and/or tablets and given a treatment schedule to follow.

It is important to follow this schedule as directed to reduce the risk of infection and tissue graft rejection.

Follow-up is extremely important after corneal transplantation.

This will remain important for the life of your transplant.

Early on, appointments are quite frequent, but these reduce with time.

Rejection of the donor cornea may sometimes occur.

This is caused by the body's immune system recognising the new cornea as foreign tissue and attacking the cells of the donor cornea.

A good way to remember the warning signs of rejection is to remember the letters RSVP:

R is for Redness

S is for Sensitivity to light

V is for Visual loss (blurred vision)

P is for Pain/discomfort.

If you experience any of these signs or flashing lights, floaters, and loss of peripheral vision, contact your surgeon immediately.

Steroid eye drops placed in the eye after surgery can prevent rejection.

It is important to continue your eye drop regimen as per your ophthalmologist's directions.

Do not stop taking the drops unless advised by your surgeon.

If donor rejection occurs, it can often be reversed by intensive use of steroid eye drops if detected early, so contact your surgeon without delay.

Depending on the type of transplant, stitches may be placed during surgery and are in place for between four to six weeks after the surgery, or up to two years for full thickness corneal transplant.

Your surgeon will advise you as to the need to avoid certain activities such as driving and physical activity for a certain period of time after the operation.

Recovery and risks

How quickly will my vision recover?

Return of your vision after corneal transplant surgery takes a variable amount of time.

Depending on the type of your transplant, your vision may improve after four weeks, and up to two years after surgery.

Most people still require glasses or contact lenses after surgery.

Your ophthalmologist will advise you as to the most appropriate time to see your optometrist to update your glasses or contact lenses.

What are the risks during surgery?

Your surgeon will discuss the risks of surgery with you.

Using modern surgical techniques, the risks associated with corneal transplant surgery are relatively small, however, as with any operative procedure, complications may occur.

Haemorrhage or infections in the eye are potentially serious complications that may cause permanent loss of vision, but these are rare.

Complications arising from anaesthesia may occur.

Local anaesthesia occasionally causes haemorrhage around the eye and rarely results in direct damage to the eye itself.

General anaesthesia carries a small, but potentially serious risk.

The anaesthetic will be discussed with you in more detail prior to your operation.

What are the risks after surgery?

For partial thickness transplants, the donor cornea may not adhere to your cornea in the immediate period after surgery and another procedure may be required to place the donor cornea in the correct position.

Longer term risks include an increase in your eye pressure, cataract (if you have not previously had cataract surgery), broken stitches and donor rejection.

Your surgeon will discuss any personal risk factors that are relevant to you.

It is important to remember that all donor corneas have a limited lifespan.

What are the risks of use of donated corneas?

While LEDS seeks to ensure donated corneas and their preparation meet the regulatory standards, it is important to understand, that the tissue may be recalled and/or lead to infection or rejection.

If this happens, LEDS will seek to notify your surgeon as soon as possible.

LEDS offers an additional Graft Follow Up program to surgeons.

Within this program, for the first two weeks after your surgery, LEDS in collaboration with participating surgeons, will monitor your outcomes and track and act on any potential issues arising out of the use of the donor tissue.

Fees and correspondence

Will I have to pay?

LEDS charges a cost recovery fee for the provision of the corneal tissue.

The fee is not a charge for the cornea itself.

Rather, it covers all costs involved in eye donation including staff salaries, laboratory testing, equipment and maintenance, medical consumables and infrastructure costs.

For patients with private health insurance, the health insurer will pay 100 per cent of the fee levied by the service.

For patients having surgery as a public patient, the fee is re-couped directly from the state government health department.

If you choose to go privately but without insurance, you will be responsible for direct payment of the LEDS fee as it is not covered by Medicare.

In such cases, your surgeon will provide you with the expected costs of surgery.

Can I write to the family of my donor?

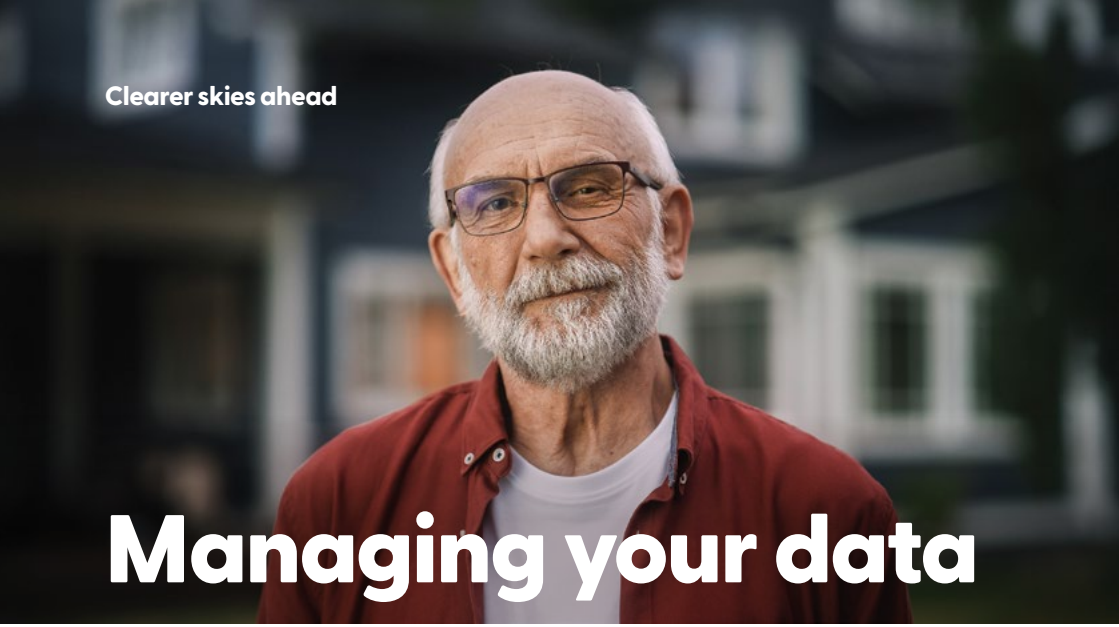
The law in Australia prohibits donation and transplant services identifying and connecting donor families and recipients to each other.

Instead, correspondence can be passed, via LEDS, between the recipient and donor family, provided it does not identify either party.

LEDS sends out Correspondence Guidelines to recipients shortly after surgery. This guide details what information you can and cannot give.

The decision as to whether to write to your donor family is a very personal one and is fully respected by LEDS.

Recipients should feel under no obligation.



Managing your data

What happens to my data pre-surgery?

Once your surgeon determines that you need a transplant, they will go through the consent process with you.

The surgeon and/or their clinic administrators will notify LEDS of the transplant and book the tissue.

To do this, they will enter, into a secure digital LEDS booking form, key pieces of information that LEDS needs to ensure the correct type of tissue is provided for you.

This information includes: your name, date of birth, tissue type requested, specifications about the type of tissue requested and why this type is needed, if this is a re-graft within 12 months, date of your proposed surgery including the

hospital/day surgery name, your private insurance details (if applicable) and the surgeon's name.

LEDS stores these details on the secure e-booking form, and transcribes them onto a separate, secure digital e-donor-recipient recording system.

All LEDS data systems are stored on a secure password protected system, and accessible only to those involved in allocating and tracking the tissue for your surgery.

Tissue is dispatched on your day of surgery with paperwork containing your name and your surgeon's details.

These details are placed into a closed envelope, only accessible to the receiving hospital/day surgery.

LEDS uses secure transport distributors to ensure the tissue and your name is kept secured between LEDS and your hospital/day surgery.

What happens with my data post-surgery?

There are two follow-up activities that occur.

LEDS Graft Follow Up program

In this program, no personal identifiers are used. LEDS communicates with participating surgeons using the tissues own unique identifier number, and only your initials.

Australian Corneal Graft Registry (ACGR)

The ACGR is the world's longest running register of surgical outcome from corneal transplantations. The Register helps surgeons and eye banks to understand the long-term impact of corneal tissue and its use in corneal transplantation. This program is managed by Flinders University and not LEDS, however LEDS supports the ACGR by providing Registry forms to your surgeon to complete. Your surgeon can discuss this with you if you require further details.

Lions Eye Donation Service

LEDS is one of Australia's leading eye banks. They are a department of the Centre for Eye Research Australia, supported in joint partnership with the Royal Victorian Eye and Ear Hospital. They are also supported by the Victorian Lions Foundation. The LEDS team are the custodians of the gift of donation, supporting donors and their families who wish to donate their eyes toward transplantation, research, and training. For further information, or to make a financial donation towards LEDS, please visit: eyedonation.org.au

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Centre for Eye Research Australia

CERA is an independent medical research institute, proudly affiliated with the University of Melbourne and the Royal Victorian Eye and Ear Hospital. To find out about research currently conducted at CERA, or to subscribe to their newsletter, register for a clinical trial or become a financial donor, please visit: **cera.org.au**

For further information about your surgery and the tissue for your surgery, please contact your surgeon.



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