
Corneal transplantation and donation

Summary

- Corneal transplants replace the 'window of the eye' if it is diseased or damaged.
 - Only corneas, not eyes, can be transplanted.
 - Only human donor tissue can be used in corneal transplantation surgery.
 - If you wish to be an eye donor after your death, tell your family.
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The cornea is the 'window of the eye' – the clear dome-like surface at the front of the eye and the main focusing element. If a cornea becomes cloudy from disease, injury or infection, vision is dramatically reduced.

A corneal transplant is a surgical procedure that replaces a disc-shaped segment of an unhealthy cornea with a similarly shaped piece of healthy donor cornea. Only human donor tissue can be used in corneal transplantation surgery. This operation is also called a corneal graft or keratoplasty.

Conditions that require a corneal transplant

The two most common reasons for requiring a transplant are:

- bullous keratopathy – a condition in which the cornea becomes permanently swollen
- keratoconus – a corneal dystrophy in which the central zone of the cornea thins and becomes irregularly curved.

Other reasons are:

- lattice, granular, macular and Fuch's dystrophy
- eye injury
- herpes virus infection of the eye
- corneal scarring due to trauma
- hereditary or congenital corneal clouding
- severe bacterial infection.

Corneal transplantation procedure

Corneal transplant is the oldest and most common form of human transplantation (other than blood transfusion). In Australia, approximately 2,000 corneal transplants are performed each year.

Corneal transplantation success rates

Cornea transplant operations are very successful. According to the Australian Corneal Graft Registry, the average one-year transplant survival rate is approximately 90 per cent, decreasing to 75 per cent at five years.

Cornea donation

Almost anyone can donate their corneas (or other parts of their eyes). Unlike in organ donation, age and blood type are unimportant in determining cornea donor suitability. Similarly, donor eye colour and eyesight quality are not barriers to donation.

However, people with severe infections, haematological malignancies, transmissible neuropathological diseases, or communicable diseases such as HIV and hepatitis, cannot donate their corneas. Suitability after previous eye surgery or eye disease in the donor is assessed at the time of donation.

Register as a donor

Telling your next of kin about your wishes is crucial for you to become a cornea donor at the time of your death.

Individuals can also register with the Australian Organ Donor Register.

Using donated corneas

An eye bank is notified on the death of a potential donor who meets preliminary donation criteria. Retrieval of the cornea typically occurs within hours of death.

If a donor cornea is unsuitable for transplant, eyes may be used for research and training, when consent is given for that purpose.

Where to get help

- Ophthalmologist
- Australian Organ Donor Register Tel. 1800 777 203
- Lions Eye Donation Service Tel: (03) 9929 8709

Things to remember

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This page has been produced in consultation with and approved by:

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