



Corneal Transplant

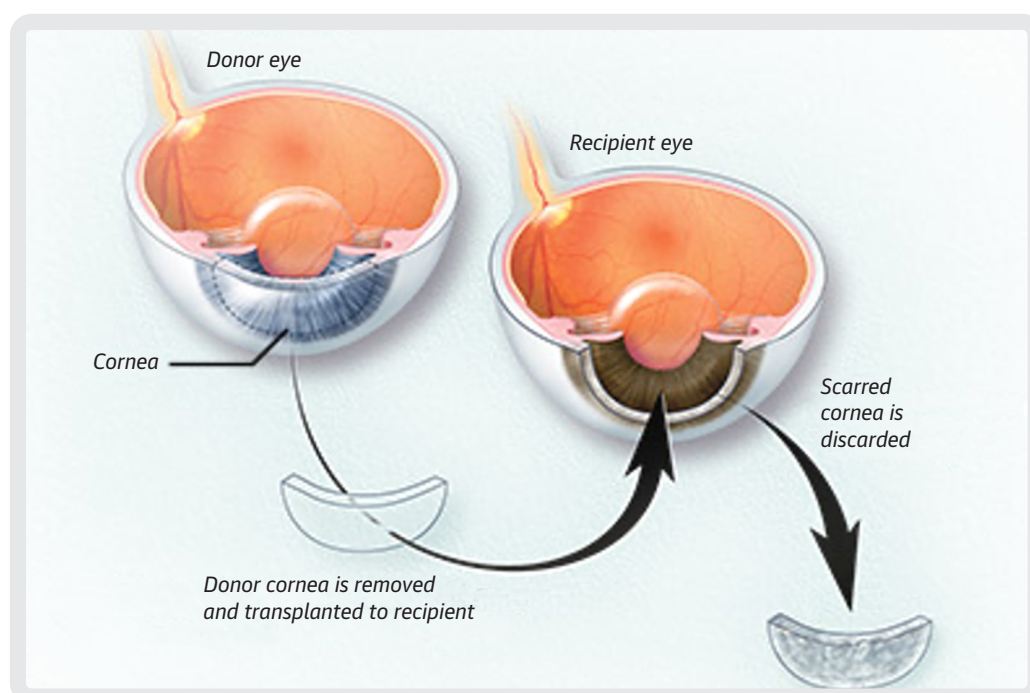
What is a Corneal Transplant?

- The cornea is the transparent front part of the eye covering the iris, pupil, and anterior chamber. The cornea's main function is the refraction (bending) of light as it enters the eye.
- A corneal transplant is a surgical procedure in which a damaged or diseased cornea is fully or partially replaced with healthy donated tissue.
- The donated corneal tissue comes from a recently deceased person with no known factors that would affect the viability of the donated tissue.
- Corneal transplants are done when all other treatment options, such as medications and cross-linking, have been ineffective.
- Corneal transplantation can also be known as corneal grafting or keratoplasty.

The three types of corneal transplant

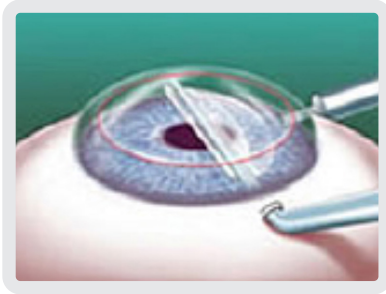
1. Penetrating Keratoplasty (PK)

- PK can be done as day surgery at a hospital. In some cases, your ophthalmologist may recommend an overnight stay.
- PK is a full thickness transplant procedure. The surgeon uses a trephine (a cutting tool) to cut a circular disk from the donor cornea. A second trephine does the same to the patient's cornea. The donor tissue is then sewn in place with sutures.
- A patch will be placed over the eye following the procedure, which is to remain on until your post-op appointment the next day.



2. Descemet's Stripping (Automated) Endothelial Keratoplasty (DSAEK)

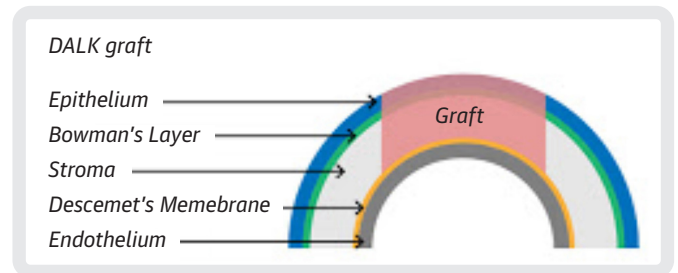
- Descemet's membrane, named after a French physician, is the 'basement membrane' in the cornea.
- DSAEK is a partial thickness corneal transplant procedure. DSAEK can be performed if the front part of the cornea is healthy and the problem is related to the back surface of the cornea.
- This technique uses a small incision that is either left to self-heal or closed with a few sutures.



- This is a technique that offers potentially better results for patients. This includes a shorter recovery time and leaving the eye stronger and less prone to injury.
- Vision is typically restored in one to six months, rather than the one to two years with PK.

3. Deep Anterior Lamellar Keratoplasty ("DALK")

- DALK is a partial thickness corneal transplant procedure. In this procedure, the front layers of the corneal surface are removed and replaced with donor tissue. The back layers of the cornea are left in place.
- DALK is used in cases of anterior corneal opacifications, scars, and corneal-thinning diseases such as Keratoconus.



What are the risks of a Corneal Transplant?

The risks of Corneal Transplant include:

Infection: Because the cornea has no blood vessels it heals much slower than a cut in the skin, hence increasing the risk of infection. This risk is minimised by antibiotic eye drops prescribed post-operation.

Rejection: In about one-fifth of transplants, the patient's eye rejects the donated cornea. In these cases another transplant can be done.

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