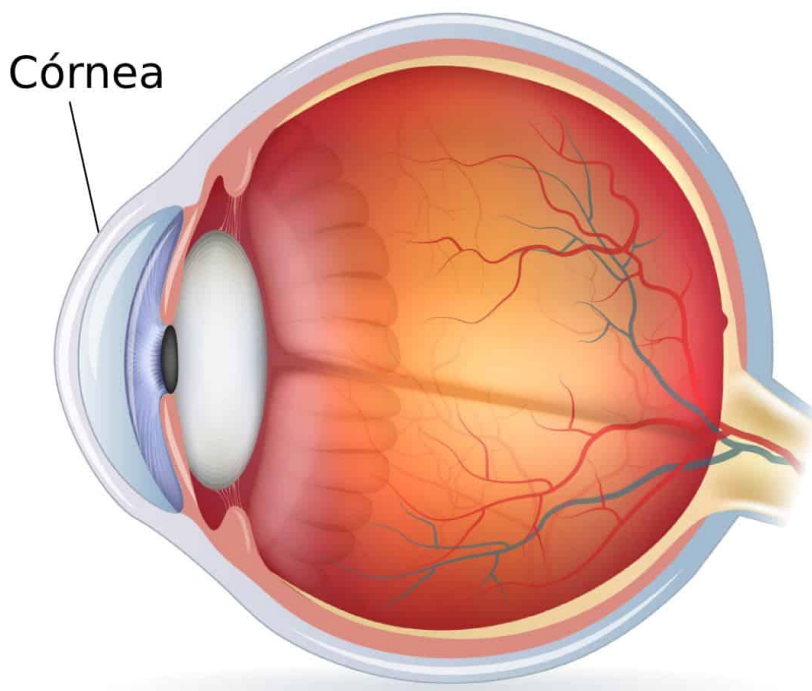


Patient information

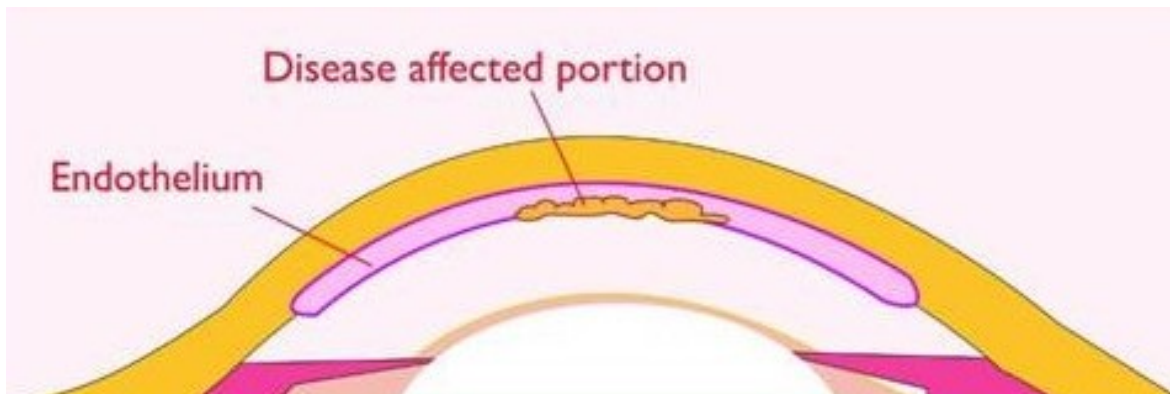
Corneal transplantation: endothelial keratoplasty (EK – variations known as DSAEK or DMEK)

Why would I need a corneal transplant?

The cornea is a window of transparent tissue at the front of the eyeball. It allows light to pass into the eye and provides focus so that images can be seen.

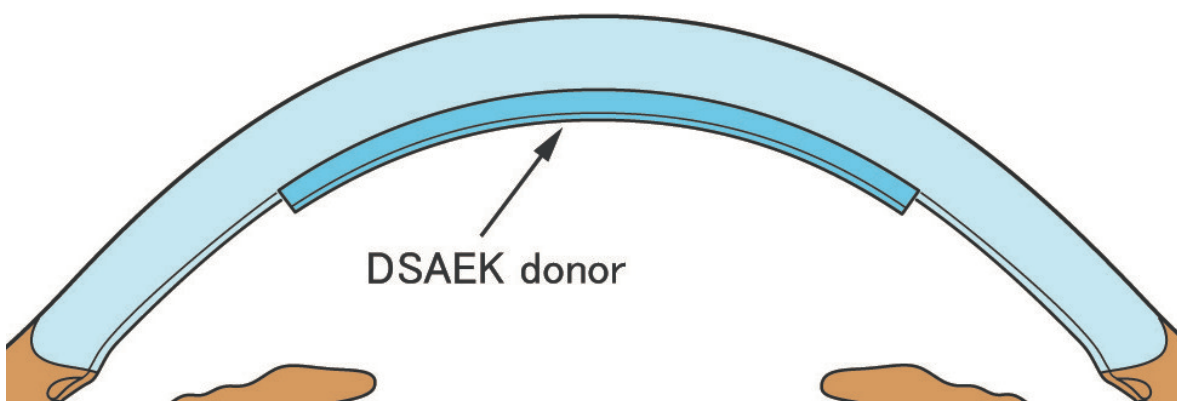


Various diseases or injury can make the cornea either cloudy or out of shape. This prevents the normal passage of light and affects vision.



The cornea has three layers (thin outer and inner layers and a thick middle layer). In some diseases, only the inside layer (endothelium) is affected, causing corneal oedema (swelling) and clouding.

Endothelial keratoplasty is a modern technique to replace the inside layer of your cornea with the inside layer from a donor cornea through a relatively small incision (opening).



Benefits of endothelial keratoplasty

Improved vision

The majority of transplant recipients have good enough vision to be able to drive legally although they usually need glasses. It can take up to six months until the full improvement is seen.

In some cases, comfort is improved.

Risks of endothelial keratoplasty

Rare but serious complications

- Sight-threatening infection (1 in 1,000)
- Severe haemorrhage causing loss of vision
- Retinal detachment

Severe inflammation or other rare causes of vision loss.

Corneal transplant rejection

A corneal transplant may be rejected by your immune system. This happens in 6- 10% of DSAEK recipients in the first two years after transplantation and can cause graft failure. It can often be reversed if anti-rejection medication is started promptly but rejection remains a possibility in your lifetime. The rejection rate in DMEK appears to be lower than in DSAEK.

Graft failure

When a graft fails, the cornea becomes cloudy again and vision becomes blurred.

Glaucoma

This can usually be controlled by eye drops, but occasionally requires surgery and may harm your sight.

Graft dislocation

About 10% of DSAEK and 20% of DMEK grafts dislocate and need to be repositioned by an air or gas injection in the eye. This can be carried out either in theatre or in clinic.

Cataract

This can be removed surgically.

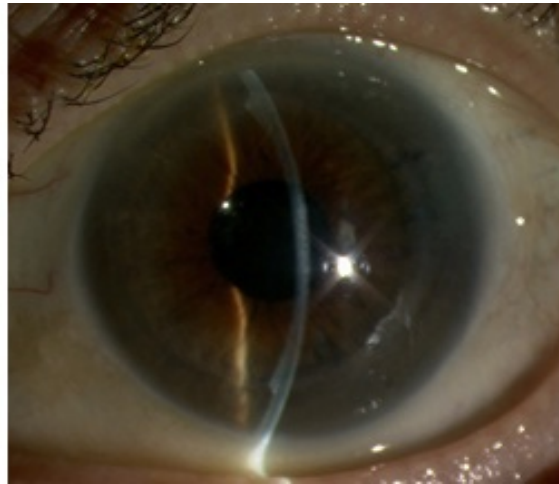
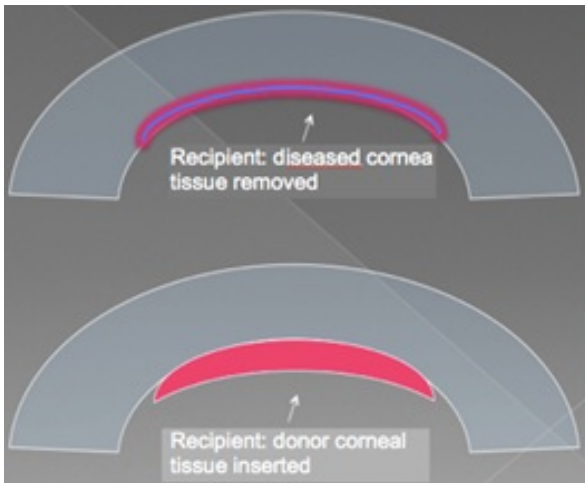
Possible advantages of EK over full-thickness graft

- Faster recovery
- Fewer stitches, which means that the shape of the cornea is more “normal” and you are less dependent on glasses/ contact lenses
- Smaller wound so fewer wound complications such as leakage or wound rupture after accidental injury

About the operation

The operation

The operation is usually performed under local anaesthetic and takes about one hour. Through a small incision (opening), your endothelium is removed and a disc of donor endothelium is inserted and pressed in position against the back of your cornea by a bubble of air. You will usually need to lie flat for one to two hours after the operation. One or two stitches are often used in the cornea. These are easily removed in clinic in the weeks after the operation.



After the operation

You will usually be examined by the surgical team after your surgery and can generally go home the same day. You will be seen again within one week in the outpatient clinic to assess whether the graft has remained in position. You will have about six visits to the outpatient clinic in the first year. We generally recommend that you take two weeks off work but please discuss your individual circumstances with your doctor. You will need to use anti-rejection eye drops for at least six months and indefinitely in some cases.

What if my transplant fails?

A failed transplant can be replaced in a procedure known as a regrant. However, the risk of further rejection and failure increases each time for second and subsequent re-grafts.

Corneal transplant rejection needs urgent treatment as this can lead to failure of the transplant and loss of vision.

Symptoms of rejection are:

- Red eye
- Sensitivity to light
- Visual loss
- Pain

If you experience any of these symptoms, you should come immediately to our clinic or attend your local A&E.