NHS
Queen Victoria Hospital
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Descemet's Stripping Endothelial Keratoplasty and Descemet's Membrane Endothelial Keratoplasty (DSEK & DMEK)

Corneo-Plastic Unit

Background

The cornea is the clear window at the front of your eye. To keep the cornea thin and clear, cells lining the inside of the cornea (called endothelial cells) pump fluid from the cornea to prevent the cornea swelling.

When there are too few endothelial cells, the clarity of the cornea cannot be maintained and eventually the vision becomes cloudy.

About the procedure

DSEK or DMEK is a technique where the diseased endothelial cells are removed from your eye and selectively replaced with a new layer of endothelial cells. These new cells are held in place temporarily by a bubble of air inside your eye. Your surgeon will choose DSEK or DMEK based on clinical findings.

In the past, a full thickness corneal transplant has been the preferred technique. However, this procedure requires stitches and a full thickness wound which results in a prolonged recovery time between 18 and 24 months.

Since sutures are not used in this modern technique (DSEK or DMEK), the corneal shape is preserved which allows a more rapid visual recovery than a full thickness corneal graft.

Will I be suitable for this procedure?

Usually, patients who have diseased endothelial cells due to Fuchs' dystrophy or following cataract surgery, with none or minimal scarring of the cornea, are suitable for this procedure.

Risks and benefits

All procedures carry some risk and this leaflet aims to outline the benefits of the procedure and the potential risks associated with the procedure and the likelihood of each risk occurring.

It is important that you have been able to consider the benefit of surgery along with the associated risks before agreeing to proceed with the operation. Please discuss any concerns you may have with your surgeon.

What are the benefits of this procedure?

- Visual improvement

Avoids the need for a full thickness corneal graft, which means:

- Better visual outcome
- Better visual recovery
- Less need for prolonged steroid drops after surgery and less chance of graft rejection
- Fewer surgical complications
- Less risk of loss of sight

What are the risks?

The risks of this surgery include:

- Graft dislocation / detachment - less than 15%
- Temporary increased eye pressure - 5%
- Graft failure - 5-10% which will require further surgery
- Graft rejection
- Blurred vision due to macular oedema (usually temporary) -less than 5%
- Retinal detachment - low risk
- Eye infection with loss of vision - very low risk

About the operation

This procedure usually takes about 90 minutes and may be carried out either under local or general anaesthesia, depending on your preference.

You will stay in hospital as an inpatient overnight following surgery. Occasionally we need to reposition the corneal graft (in less than 20% of our patients) within the first week. This will require another air bubble to be injected into the eye and another stay of one day in hospital.

After the operation

You will be asked to lie flat as much as possible for one to two days after surgery, as we usually leave an air bubble in the eye to push the new endothelial graft in position. This air bubble is usually absorbed in 48 hours but may take longer.

You will need to use pupil-dilating eye drops three times a day for three days following the surgery. You will also be given two more lots of drops (an antibiotic and a steroid) to use, at first, four times a day. The dosage and frequency of these will be

reduced gradually, as prescribed by the corneal surgeon.

Your vision will be misty for a few days after surgery, but it will improve over the next three to four months, as the cornea gradually clears.

Resuming normal activities

Work - You are likely to need one week off work, or longer depending on the type of job you have.

Sport/hobbies - We advise that, should the surgery be successful, you wait for four weeks before returning to sport or active hobbies.

Flying – Air travel is usually permissible three days following surgery, providing the air bubble has been absorbed into the eye, as previously described.

Risks and benefits

Royal College of Ophthalmologists website:
http://www.rcophth.ac.uk/

For further information about the risks of anaesthetics please see the booklet 'You and your anaesthetic':
http://www.rcoa.ac.uk/document-store/you-and-your-anaesthetic

or visit the Royal College of Anaesthetists' website:
www.rcoa.ac.uk

Risks and benefits

Should you have any further questions or concerns, please do not hesitate to contact us:

Ross Tilley Ward:	**01342 414451** (out of hours)
Eye Clinic:	**01342 414470 / 4166 / 4038** (for appointments)
Eye Emergencies:	**01342 306782** (between 8.30am and 4.30pm)
Fax:	**01342 414106**

Please ask if you would like this leaflet in larger print or an alternative format.

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