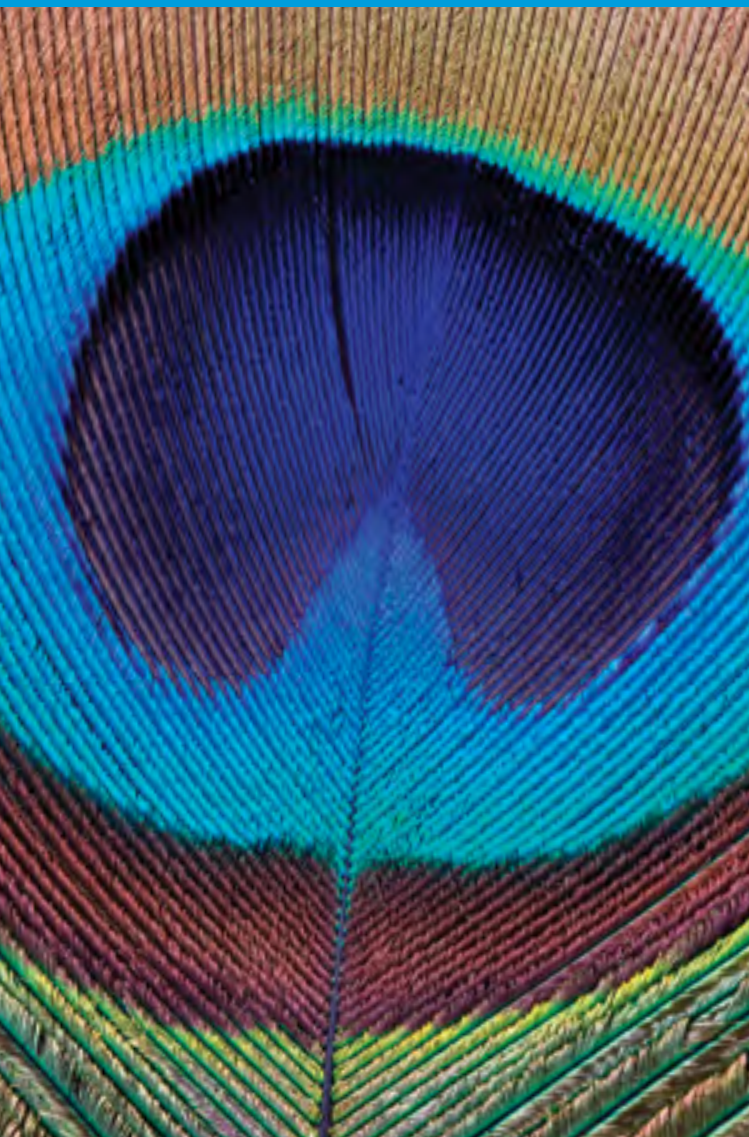


# Corneal Transplantation (DALK)

Deep Anterior Lamellar Keratoplasty



Moorfields  
Eye Hospital Dubai

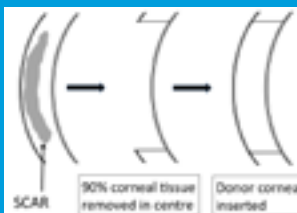
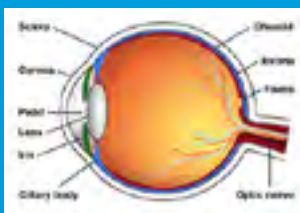
A BRANCH OF MOORFIELDS LONDON

# Why do you 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 3 layers (thin outer and inner layers and a thick middle layer). In some diseases, only the middle layer or part of the middle layer is affected (see below).



DALK is a modern technique whereby the outer two layers of the cornea are removed and replaced with the outer 2 layers from a donor cornea to give a partial-thickness transplant.

# Benefits of Deep Anterior Lamellar Keratoplasty

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## Improved vision

- 90% of transplant recipients reach driving standard if the eye is otherwise healthy but can need glasses or contact lenses or sometimes further surgery for best results.
- It may take up to 18 months until the full improvement in vision is appreciated

# Risks of Deep Anterior Lamellar Keratoplasty

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## Rare but serious complications

- Sight-threatening infection (1 in 1000)
- Severe haemorrhage causing loss of vision
- Retinal detachment

## Corneal transplant rejection

A corneal transplant can be identified and attacked by your immune system. This happens in less than 10% of DALK 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. Rejection remains a possibility for your lifetime.

## Graft Failure

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

## Glaucoma

This can usually be controlled by eyedrops but occasionally requires surgery.

## Cataract

This can be removed surgically.

## Conversion to penetrating keratoplasty

Occasionally it is not possible to perform a partial thickness transplant and a full-thickness transplant must be performed instead. This happens in 10% of intended DALK procedures.

# Possible advantages of DALK over full-thickness graft

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- Lower risk of intraocular problems such as serious infection or bleeding
- Lower risk of graft rejection
- The corneal wound after DALK is stronger than that after a full-thickness graft (PK). This means that stitches can be removed sooner.

# Possible disadvantages of DALK over full-thickness graft

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DALK recipients have a slightly lower chance of achieving 6/6 vision (excellent vision) than recipients of full-thickness grafts.

## About the operation

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### The operation

The operation is performed under general or local anaesthetic. The operation takes about one hour. A central partial thickness 8mm button of the patient's cornea is removed and a similar-sized button of the donor cornea is stitched in with tiny stitches (see front cover). These cannot be felt nor seen. The abnormal cornea, which is removed is sent to our pathology laboratory for examination under a microscope.

### After the operation

You will usually be examined by the surgical team after the surgery and can usually go home the same day. You will be seen again within 1 week in the outpatient clinic and regularly thereafter (approximately 6 visits in the first year). We generally recommend that you take 2 weeks off work - discuss your case with your doctor. You will need to use anti-rejection eyedrops for at least 6 months and in some cases indefinitely. Individual stitches may be removed from 3 months after the operation but complete stitch removal is not performed until at least 1 year.

# What if my transplant fails?

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A failed transplant can be replaced in a procedure known as a regraft. However the risk of subsequent rejection and failure increases each time for second and subsequent regrafts.

## Corneal Transplant Rejection

If not treated urgently this can lead to failure of the transplant and loss of vision.

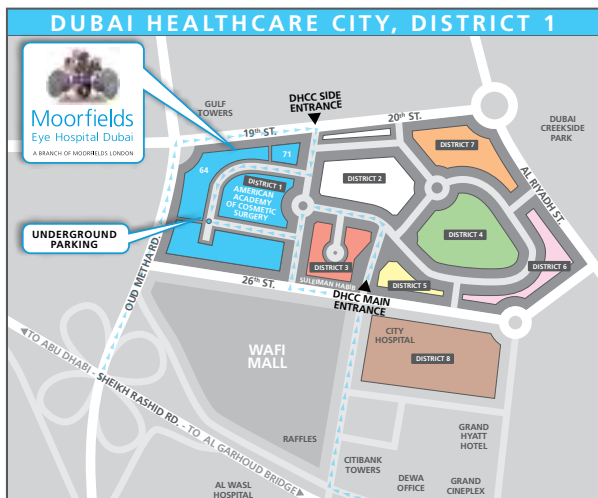
### Symptoms of rejection are:

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

If you experience any of these symptoms, you should immediately call our 24-hour emergency phone line 055 516 1586.

# How To Reach Us

Moorfields Eye Hospital Dubai is located in the Al Razi Building in Dubai Healthcare City, opposite Gulf Tower.



GPS COORDINATES: 25° 14'02.0"N , 055° 19'07.9"E

## Moorfields Eye Hospital Dubai

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[www.moorfields.ae](http://www.moorfields.ae)

## Opening hours:

Saturday to Thursday, 8.00am to 6.00pm, for information and advice on eye conditions and treatments from experienced ophthalmic-trained staff.