

Superficial keratectomy and alcohol delamination

This leaflet provides information about SK surgery and includes risks, benefits and aftercare information. If you have any questions or concerns please speak to your eye specialist.

What is superficial keratectomy?

Superficial keratectomy (SK) means removal of the surface of the cornea, leaving the middle and deeper layers intact. It is used where the corneal surface has become roughened, e.g. due to surface scarring.

What is alcohol delamination?

SK surgery may be combined with application of alcohol (20%) to the surface of the eye. This loosens the attachment of the surface cells, making them easier to remove.

What are the possible risks following surgery?

- Infection of the cornea.
- Residual or recurrent corneal opacity (cloudiness) or irregularity/roughness.
- Delayed or failure of healing of corneal surface (epithelium).
- Recurrent corneal erosions. If the procedure is being used as a treatment for recurrent erosions, approximately 80% of patients will have a benefit from the procedure, 10% will be unchanged and 10% made worse (more unstable). If this is the case then further treatment, possibly including surgery, may be required.

Before surgery

There are usually no additional tests or checks needed before surgery.

What happens on the day of surgery?

- Superficial keratectomy is usually carried out under local anaesthetic, using eye-drops to numb the eye.
- Before the operation, the eye and eyelids will be cleaned, and a sterile drape placed over the face. This does fit closely, but will be lifted up off the mouth and nose, with fresh air blown gently underneath the drapes.
- The procedure itself is not painful, but the operating light may appear very bright, and you will be aware of fluid washing over the eye, and most likely spilling down your cheek.
- The procedure will take around 15 minutes to perform, although this does vary between patients. At the end of surgery, a bandage contact lens may be placed on the eye, or the eye may be padded closed with antibiotic ointment.

What to expect after the surgery

- After the operation, the eye will feel as if it has been scratched because the procedure involves removing the surface layer of the eye. This is often significantly painful, and the eye will water a lot.
- A small vial of local anaesthetic eye-drops will be supplied; this can be used to ease pain in the first 12 hours after surgery. One drop should be put into the eye if the pain becomes excessive.
- Avoid more prolonged use of local anaesthetic as it will impair healing of the eye. Pain-killing medicines will be prescribed, although these have a limited effect in easing pain from the surface of the eye.
- You will be given antibiotic eye-drops to take after the operation; these should be taken 4 times a day for 2 weeks.

- If you are currently taking eye-drops or ointment, please check with the nursing or medical staff whether you should continue these treatments.
- You will have a post-operative check-up 1-2 weeks after surgery. This is to look for any signs of infection, and to remove the bandage contact lens, if one has been used. Sometimes, the contact lens falls out on its own. Do not attempt to put it back onto the eye if this happens.
- Driving – the legal requirement for driving is that you can read (with glasses or contact lenses, if necessary) a number plate at 20 metres, with both eyes open. You may be able to meet this requirement a few days after surgery but if you are unsure, or if you rely on your operated eye for driving acuity (perception), please ask for advice at your follow-up appointment.
- The benefits of the procedure will be evident in 2-4 weeks (corneal smoothing), or over subsequent months if the aim has been to prevent recurrent corneal erosions.

Contacting us

If you have a minor eye problem, please seek advice from your GP, optician or pharmacist. If urgent, please attend Eye Casualty or call 111.

Eye Casualty (Reading):	Mon-Fri 9am to 5pm; Sat & Sun & bank holidays 9am-12.30pm; Closed Christmas Day and New Year’s Day.
Eye Casualty: Prince Charles Eye Unit (Windsor):	Mon-Fri 9am to 5pm; Sat 9am-12.30pm; Closed Sun & bank holidays.
Dorrell Ward (Reading):	0118 322 7172 (24 hours a day)
Eye Day Unit (Reading):	0118 322 7123 (Mon-Fri 7am to 6pm)

Outside of Eye Casualty hours, you should telephone your GP's out of hours' service, ring NHS 111 or if you have serious concerns, visit your nearest Emergency Department (A&E).

Further information

- NHS Website www.nhs.uk
- Specific Eye Conditions www.eyecconditions.org.uk

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

M Leyland, RBFT Ophthalmology, February 2023

Next review due: February 2025