



# Having an eye operation using local anaesthesia

**This leaflet explains how and why local anaesthesia (LA) may be used for your eye operation. If you still have any questions after reading this information then please ask any member of staff, who will be happy to help.**

Please read this leaflet carefully to understand why we recommend local anaesthesia (LA) over general anaesthesia (GA). It describes how local anaesthetics are currently used for eye operations at Reading, Newbury and Windsor and what will happen in the operating theatre. If your circumstances are straightforward, your surgeon will recommend LA to make your eye numb. You might be uncertain about the use of LA for your operation, so you can decline treatment using LA. For those patients who feel anxious, additional medications are available from the surgeon, anaesthetist or anaesthesia associate (who is under the supervision of an anaesthetist). For older patients in particular, the careful use of minimal sedation, broadly avoids the hazards associated with the state of being rendered completely unconscious, as happens under GA.

## What is a local anaesthetic (LA)?

Local anaesthetics numb sensations by blocking the normal messages that travel along our nerves. The sensation of pain is the easiest to block.

## What are the advantages of local anaesthesia (LA)?

LA can be used for the majority of eye operations. It works very well, and continues to provide pain relief immediately after the operation. Using LA avoids the common side effects that can follow a GA, such as

feeling sick or delirious (confused). This is because LA does not normally affect those other important parts of your body, such as your brain, heart or your breathing. During a longer operation, if required, it is easy for the surgeon to top-up the dose of LA.

Another benefit of using LA, is that you can usually continue to take any regular prescribed medicines you may be taking.

## **Will I need to an injection near my eye?**

It depends! Your surgeon will decide if your operation can be done using local anaesthetic drops alone. Applying drops of local anaesthetic to the surface of the eye is described as “Topical”. Topical means ‘applied to the outer surface’. For eye surgery, eye drops containing local anaesthetic (LA) which do not sting have been created for use on the sensitive surface of the eye. When these drops are used, there is no need for any needle or injection. This simple technique is often used in operations to remove a cataract from the lens of the eye, and for other procedures on the surface of the eye.

Certain operations are more complicated, so are not suitable for the topical method. In such cases, we use a combination of the same LA drops on the surface, plus extra LA that is delivered around the back of the eyeball.

For cases needing surgery to the back of the eye, such a detached retina, a Sub-Tenon’s block is used on a routine basis.

A Sub-Tenon’s block is carried out by a surgeon, anaesthetist or anaesthesia associate, in order to place the additional LA in the correct place, it is necessary to make a tiny opening in the bottom inside corner of the eyeball.

Once LA drops have been applied to numb the surface of the eye, another dose of local anaesthetic is administered via a cannula (thin tube) to achieve a greater anaesthetic effect. In order to place that additional LA behind the eyeball, it is necessary to make a tiny opening in the surface layer of the eyeball.

You will be aware of some pressure, but not pain, as the LA liquid is gently injected around the back of your eyeball. Some of the liquid can dribble down your cheek. Before the injection takes place, we place gauze at the side of your eye to stop any liquid dribbling into your ear. A special device holds your eyelids apart, so you don't have to worry about blinking during the operation. If you feel particularly anxious, you might be offered a tablet or an injection that can help you feel more relaxed. You can also ask for a member of the theatre staff to hold your hand during the operation.

In the unlikely event that you do feel any discomfort during the operation, please let us know by speaking or by gently raising one hand. We can easily take appropriate action such as topping up the Sub-Tenon's block with more LA.

## **Will having local anaesthetic hurt?**

**The short answer is no!** The precise sensation varies from person to person. Anaesthetic eye drops have been designed not to sting, which is why we use that particular local anaesthetic.

## **How is a local anaesthetic given?**

Eye drops containing LA are often adequate for cataract operations. These are usually administered by a theatre practitioner. Once the LA has been applied, antiseptic eye drops (typically iodine) are carefully given next. There should not be any stinging from the iodine, but if this does occur, additional LA drops will be dribbled in to get rid of the stinging.

## **Dealing with anxiety about the operation under LA**

Please say if you would like one of the theatre team to hold your hand during the operation. It is also possible to offer you a tablet or an intravenous injection of a calming agent (a sedative drug) to help you feel relaxed yet remain co-operative during the operation.

## Preparation for local anaesthesia

In a room just outside the operating theatre, before the LA is given we will monitor:

- The oxygen level in your blood – a clip (pulse oximeter) will be placed on your finger.
- Your heart, attaching sticky patches to your chest to see your electrocardiogram (ECG).

It is very rare for patients to become unwell or experience discomfort during eye surgery under LA.

## The process of eye surgery under LA

The shorter procedures such as removal of a cataract and replacement of the lens of the eye normally take less than 30 minutes. Operations on the retina at the back of the eye, and some procedures that are designed to correct problems due to glaucoma take longer. As the LA only affects the eye itself, do not worry if you can still feel being touched on the forehead, nose or eyelids. This applies to the eyelids in particular, as the nerves for the eyelids are different to those that go to the eyeball.

Once you have been given the LA you should not be able to feel any pain in your eyeball. We will check that you are comfortable before the operation begins, and if anything changes you can raise a hand to attract our attention. **You are not expected to feel any pain, so please tell us if you experience any discomfort at all.**

## What happens before surgery starts in theatre?

You will be made comfortable on the operating trolley. Your head and neck will be well supported. A pillow placed under your knees will take the strain off your back. You can decide to gently close the other eye, or keep it open – in which case you will see a paper drape.

A sterile paper sheet will be placed above your face to keep the area around the eye clean. It will not rest completely on your face. If needed, a tube can be placed nearby to blow plenty of fresh air around your mouth

and nose, should you feel that would help you feel more comfortable and breathe more easily during the operation.

If you feel any discomfort during the operation, please let us know by speaking or by gently raising one hand, so that we can take appropriate action such as topping up your LA. There will be critical brief moments when you will be asked to remain as still as possible and not cough.

### **Will I see or hear anything?**

This experience varies from patient to patient. It is not unusual to see coloured or white lights and movements during the operation, but the instruments are so close that you will not be able to see them clearly. The device that gets rid of the cataract does make a noise which you will be aware of, but it is not loud.

In straightforward cases of cataract surgery, once the new lens is in place, you may notice an immediate improvement in vision. Do not worry if it takes time for vision to return and remember that a temporary eye shield is usually placed over the eye that has been operated on.

### **How long does the anaesthetic last?**

Between 2 to 4 hours. Double vision may sometimes occur, and may persist for longer (but not more than 12 hours).

### **Will I be in pain after the operation?**

It is common to feel some gritty discomfort when the anaesthetic wears off so a mild painkiller, such as paracetamol, may be required. It is a good idea to ensure you have some paracetamol or other mild painkiller that you know and trust, readily available at home.

### **Are there any complications of LA?**

Eye surgery under LA is very safe. Sometimes, the tissues around the eye can swell after the injection of the local anaesthetic drug or, because of a small amount of bleeding following the injection, bruising

on the eyelid may occur. This type of swelling usually settles within a few days.

Redness of part of the white of the eye is to be expected after a Sub-Tenon's block, and as a consequence of surgery itself. In the unlikely event that severe bleeding follows Sub-Tenon's block, the operation will be rescheduled for another occasion.

### **Serious complications are exceptionally rare**

We carry out about 6000 eye operations every year. Although **serious complications** such as damage to the eye, blood vessels and eye muscles, or spread of local anaesthetic to the brain could happen, these are **exceptionally rare**.

**However, to avoid infection or other complications, if a blood glucose level is too high we will not operate when diabetes is poorly controlled.**

### **Will I need to fast?**

No, you can eat and drink as normal, but avoid a heavy meal beforehand. Please remember to take any regular medication as usual, unless your doctor or pre-operative assessment nurse has advised otherwise.

**If you have diabetes, please note that your operation will not be able to take place if your blood glucose level is too high, so please make sure you maintain regular meal times and take your medication as usual.**

### **Other advice**

On the day of your operation, please bring a pair of slippers and an extra shirt / blouse / top with you.

## Contacting us

If you have a minor eye problem, please seek advice from your GP, optician or pharmacist. If urgent, please attend Eye Casualty at the Royal Berkshire Hospital or at Prince Charles Eye Unit in Windsor. Alternatively, call NHS Direct on 111.

Eye Casualty (Reading):	Mon-Fri 8.30am to 5pm; Sat & Sun & bank holidays 8.30am-12.30pm; Closed Christmas Day and New Year's Day.
Eye Casualty: Prince Charles Eye Unit (Windsor):	Mon-Fri 8.30am to 5pm; Sat 8.30am-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)
Eye Day Unit (PCEU Windsor - Reception)	0300 614 6496 Mon-Fri 8am to 4pm)

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

RBFT Ophthalmology

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