



Local anaesthesia for your eye operation

This leaflet explains what to expect when you have an eye operation under local anaesthetic. It has been written by anaesthetists, patients and patient representatives, working together.

Local anaesthetic for an eye operation

A local anaesthetic is a type of medication that stops you feeling pain. For eye surgery, it can be given as **eye drops** and/or **injections**. After you have the local anaesthetic, you will still be awake and aware of what is happening to you. The aim is that you feel no pain during the operation.

What are the advantages of local anaesthesia?

A local anaesthetic usually works very well at preventing you feeling pain during an operation on the eye. It also:

- gives you pain relief after the operation, for several hours
- usually has fewer risks and side effects than a general anaesthetic, especially if you are elderly
- enables quicker recovery following surgery, so you can usually go home on the same day
- allows you to continue to take most of your normal medicines
- allows you to eat and drink more freely than with a general anaesthetic – staff at the hospital will advise you about this.

I would prefer a general anaesthetic; do I have a choice?

- Yes. Nothing will happen to you until you understand and agree with what has been planned for you.

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- If you have a preference for a general anaesthetic, you should discuss this with your anaesthetist or surgeon as early as possible. There may be a medical reason why a general anaesthetic would not be advisable. You may need to wait longer for your operation, as waiting lists for surgery under general anaesthetic can be longer. Some hospitals may not be able to provide operations under general anaesthetic.

How is the local anaesthetic given?

There are two types of local anaesthetic:

- some operations can be carried out with eye drops that numb the eye. No injections are required. Your surgeon will be able to tell you if this is possible for your type of operation
- many operations require a local anaesthetic injection. This includes operations where the eye must be kept very still – for example operations on the retina. Drops are given first, to numb the surface of the eye. Then an injection is given near to the eye (but not into the eyeball itself).

Is the local anaesthetic injection painful?

This varies from person to person. Eye drops that numb the surface of the eye are used first to make it as comfortable as possible. A very fine needle is used and there may be a feeling of stinging or pressure, which usually lasts less than a minute.

Can everyone have a local anaesthetic for an eye operation?

No. To safely have your operation using a local anaesthetic, you will need to be able to:

- lie reasonably flat and still for 45–60 minutes
- follow simple instructions.

A local anaesthetic is not normally recommended if you:

- have a known allergy to local anaesthetic drugs
- cannot lie reasonably flat
- find it difficult or impossible to keep still, eg Parkinson's disease
- find it difficult to remember what is happening, eg moderate dementia
- have a cough you cannot control
- have severe hearing difficulties
- will have difficulty understanding what is being said
- have severe claustrophobia.

If any of these apply to you, your surgeon will discuss the options with your anaesthetist, but a general anaesthetic will be considered.

Who administers the local anaesthetic?

Both anaesthetists and eye surgeons are trained to administer local anaesthetic.

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Are there any complications from local anaesthetics?

Local anaesthetics for eye surgery are the safest option for many people. Sometimes you may develop bruising or a black eye, as the injection damages a small blood vessel around the eye. This is not usually serious but can look unsightly for a week or so. It is more common if you take aspirin or other drugs that thin the blood.

Rarely, bleeding after the injection can cause problems around the eye. Your surgeon may decide that the operation will have to be delayed to another day.

Serious complications

The risk of significant damage to your eye affecting your sight, blood vessels or eye muscles, is about 1 in 5,000 or rarer (so only 1 of every 5,000 treated patients is affected). Rarely there may be serious effects on your heart or breathing. Your anaesthetist and eye surgeon will be able to give more information about these complications.

Before the operation

There is much you can do to prepare yourself for your surgery and the recovery period if you are having planned surgery.

- It is best to plan early for your recovery at home afterwards and let your friends and family know how they can best help you. Think about what you will eat and whether you need to make any changes at home to make your recovery easier.
- If you return home the same day after you have a general anaesthetic or sedation, you will need to organise a responsible adult to take you home by car or taxi and stay with you for up to 24 hours. Information for those caring for someone who has just had a general anaesthetic or sedation can be found in our leaflet *Caring for someone who has had a general anaesthetic or sedation*: rcoa.ac.uk/patientinfo/sedation
- For information on preparing for cataract surgery, please see our leaflet *Preparing for cataract surgery* which can be found on our website: rcoa.ac.uk/patientinfo/ataract



The preoperative assessment clinic

Once the operation date is planned, a health check is needed. You may be sent a short questionnaire about your health or you may be asked to attend a preoperative assessment clinic. Nurses usually run the preoperative assessment clinic, with a doctor available for advice.

They will ask you detailed questions about your general health, medications, allergies and your activity levels. If you need any tests, these will be arranged at this clinic.

They will also ask you about your home situation to make sure you have enough support after the operation. It is important to plan how you will manage at home after the operation and whether anyone can stay with you to look after you and to help with your eye drops. If you have poor sight in your other eye this is particularly important. You may also wish to move furniture to make it easier for you after the surgery.

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Your usual medicines

The staff in the preoperative assessment clinic will record the medicines you take. Please bring a list or the medicines themselves in their boxes. This should include any over-the-counter or herbal medicines that you take.

Most medicines can be taken as usual before the operation. However, some medicines or tablets must be stopped on the day or a few days before. You will be given instructions about what to take and what must be stopped. These instructions are important and must be followed carefully.

If you take clopidogrel, rivaroxaban, warfarin or other 'blood-thinning' drugs you may need specific instructions about them. There can be risks to stopping these drugs and you should discuss your risks with your consultant. You may not need to stop these medicines for cataract surgery.

On the day of the operation

You should receive clear instructions about if and when you should stop eating and drinking.

Unless and otherwise instructed, you should take your routine medications. You should follow any instructions you are given about eating and drinking before your surgery. You can have water to take any tablets you need.

If you have a cough or heavy cold on the day of surgery, you should telephone the ward for advice. Your operation may need to be postponed.

Please bring all your medicines, tablets and inhalers with you so the doctors and nurses can check them.

Meeting your surgeon

You will be seen by your eye surgeon (ophthalmologist). They will check which eye is being operated on and discuss the operation with you. You will be asked to sign a consent form and they will put a mark near the eye to be operated on.

Meeting your anaesthetist

If an anaesthetist is working with the eye surgeon, you will meet them and they can answer any questions that you have about the anaesthetic.

You may also meet Anaesthesia Associates who are highly trained healthcare professionals. You can read more about their role and the anaesthesia team on our website:

rcoa.ac.uk/patientinfo/anaesthesia-team



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Questions you may like to ask your anaesthetist or surgeon

- Who will give my anaesthetic?
- Have you often used this type of anaesthetic?
- Do I have to have a local anaesthetic?
- What are the risks of this type of anaesthetic?
- Do I have any special risks?
- How will I feel afterwards?

Can I have something to help me relax?

Your anaesthetist and other staff in the theatre are very used to giving reassurance and helping people relax. Sedative drugs can sometimes be given. However, they may cause problems during the operation if you drift off to sleep then wake up suddenly and move, or if your breathing slows down. Please discuss your concerns with your anaesthetist or surgeon. They can discuss with you the options available to you.

For more information about sedation, please see our *Sedation explained* leaflet which is available on our website: rcoa.ac.uk/patientinfo/sedation



What happens next?

- You may be asked to put on a hospital gown. Some hospitals allow people to wear their own clothes. You should wear comfortable clothing that is loose around the neck.
- For some operations, a nurse on the ward will give you some eye drops to dilate your pupil (make it bigger). Your sight will become slightly blurred for a time.
- It is sensible to use the toilet before you go to theatre so that you can lie still comfortably.
- A nurse will accompany you to theatre by trolley, wheelchair or, if you prefer, you can walk.

Theatre staff will ask you some questions to confirm your identity and what operation you are having. They will check again with you which eye is being operated on and check your consent form.

In the anaesthetic room

You will be made comfortable on the operating trolley. A pillow is often placed under your knees to take the strain off your back and hips.

Your anaesthetist may place equipment to monitor:

- **your heart:** stickers on your chest (electrocardiogram or ECG)
- **your blood pressure:** a blood pressure cuff may be placed on your arm. This may measure your blood pressure every 5 to 15 minutes during the operation. This can give you a feeling of tightness in your arm
- **the oxygen level in your blood:** a clip will be placed on your finger (pulse oximeter).

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A needle may be used to put a cannula (thin plastic tube) into a vein in the back of your hand or arm. This is secured with an adhesive dressing. This is for the anaesthetist to give you any drugs that you may need.

The anaesthesia team will check again to confirm your name, date of birth and the operation you are having.

The anaesthetist or eye surgeon will then give you the eye drops and/or injections that numb your eye.

Having the anaesthetic

Will the local anaesthetic injection hurt?

This varies from person to person. There may be stinging, pressure or pain, which usually lasts less than a minute.

What happens after the local anaesthetic is given?

The eye being operated on will be kept closed to prevent anything touching and damaging the surface of the eye. Staff may massage your eye, apply pressure or place a small weight on the closed eye to help the anaesthetic spread evenly.

How do I know that the anaesthetic is working?

Your anaesthetist or eye surgeon will check your eye to make sure it is numb. You may be asked to look in different directions to assess the effects of the anaesthetic. When they are happy that the anaesthetic is working well, you will be taken into the operating theatre.

What happens in the operating theatre?

- The heart and pulse monitors will be reattached.
- The nurse will check you are lying comfortably.
- The operating team will perform another check to confirm your details and that all the equipment is correct.
- A member of staff may offer to hold your hand throughout the operation.
- A sterile surgical sheet will be placed over your face like a tent to keep the area around your eye clean. The sheet will have a hole in it so the surgeon can work on your eye.
- A tube may be placed under the surgical sheet, which will blow fresh air/oxygen around your mouth and nose. This is to help you feel comfortable during the operation.

The area round your eye will be cleaned with a cold fluid. During the operation, water is used to keep your eye moist. Although care is taken to prevent this water dripping down the side of your face, sometimes it is difficult to avoid.

Can I speak during the operation?

It is better not to speak while the surgeon is operating on your eye, unless the surgeon asks you a question. Moving your face could affect the surgery. If you want to say something, it is better to wave your hand and the eye surgeon will stop operating so that you can speak.

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What will I hear?

You will hear the surgeon speaking to the theatre team during the operation. Equipment in the theatre can make various sounds. The heart monitor may 'beep'. Some machines have a female voice which read out messages every now and then. This is to tell the surgeon about changes in settings. If the surgeon wants you to do something, eg lift your chin up a bit, they will call you by name. If your name is not called, you do not have to respond.

Will I see anything?

You will usually be able to see bright lights and you may see some movement during the operation. This varies from person to person. You will not be able to see any detail and things may appear blurry.

What else will happen?

The surgeon operates with fine instruments that reach inside your eye – your eye is not removed from its normal position.

Will I feel pain during the operation?

You will be aware that the surgeon is working and will usually feel some touch and pressure. You should not experience any pain though. **If you feel discomfort or pain, you should let your surgeon know so they can give you more local anaesthetic if necessary.**

What if I blink?

A small clip keeps the eyelid of the eye being operated on open. That means you can still blink with your other eye. As long as you don't move your head, it is fine to blink.

What if I want to wriggle, cough, clear my throat or scratch my nose?

You should lie fairly still in a relaxed way. You need to warn the surgeon by waving your hand before any significant movement (including coughing, scratching or wriggling to adjust your position). The surgeon will stop operating so you can safely move.

What if I doze off during the operation?

It is important that you stay awake during the operation as sudden movement upon waking up from sleep can risk damage to your eye. The surgeon will regularly check that you are awake and comfortable. They will also warn you if there are any times you need to be especially still.

I have a weak bladder. What if I need to go to the toilet?

It is essential that you empty your bladder just before you are brought to theatre. In the event that you feel the urge to go to the toilet and cannot hold on, please let the theatre team know who can take necessary steps to help you.

Could I feel pain midway through the operation?

Yes. In some procedures, the anaesthetic could start wearing off. If you feel discomfort or pain at any point of time, you should let the surgeon know.

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How long does the surgery last?

Most procedures last between half an hour and an hour. Some procedures can take up to two hours. The surgeon will give you an estimate as to how long it may last.

Can I wear my hearing aid during the operation?

It is usual practice to remove the hearing aid on the same side as the eye being operated on because, even with care, water can enter the ear and the hearing aid may malfunction and start to make noises. You can wear your hearing aid on the side not being operated on.

After the operation

A nurse will take you back to the ward in a wheelchair. Your eye may stay numb for two to three hours, although it can be longer.

Your eye may be covered with a pad until the following day, to protect it and stop you from rubbing it while you are asleep. When the eye pad is removed, you may experience double vision for several hours.

When can I start eating and drinking?

You should be ready to start eating and drinking once you are in the ward.



When can I go home?

When you are feeling well and have had something to eat and drink, you may go home.

If you have had sedation, a responsible adult should take you home by car or taxi. You should not look after children for 24 hours and should follow the advice in the leaflet below.



Information for those caring for someone who has just had a general anaesthetic or sedation can be found in our leaflet *Caring for someone who has had a general anaesthetic or sedation* which is available on our website: rcoa.ac.uk/patientinfo/sedation



The ward nurse will tell you about any medication you need to take and give you written instructions. Eye drops may be used following surgery, to reduce inflammation (swelling) and help prevent infection. If you need to come back to the clinic for a check, you will be told about this.

Will I be in pain?

You may feel some pain from the operation when the anaesthetic wears off. A painkiller such as paracetamol may be required.

If you experience severe pain please contact the number given on your paperwork as this is not normal and can indicate a problem.

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Do I need to take any special care?

- Avoid rubbing your eye.
- Protect your eyes (particularly in windy weather) in case you get something in your eye.
- Avoid very heavy lifting, strenuous exercise and swimming for a period of time, as advised by the team looking after you.
- If your vision gets worse or if the eye becomes very painful, you should contact the hospital immediately for advice.
- Avoid wearing contact lenses until you have discussed with your doctor.

Tell us what you think

We welcome suggestions to improve this leaflet.

If you have any comments that you would like to make, please email them to:

patientinformation@rcoa.ac.uk

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This leaflet will be reviewed within three years of the date of publication.

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