

Cataracts and cataract surgery

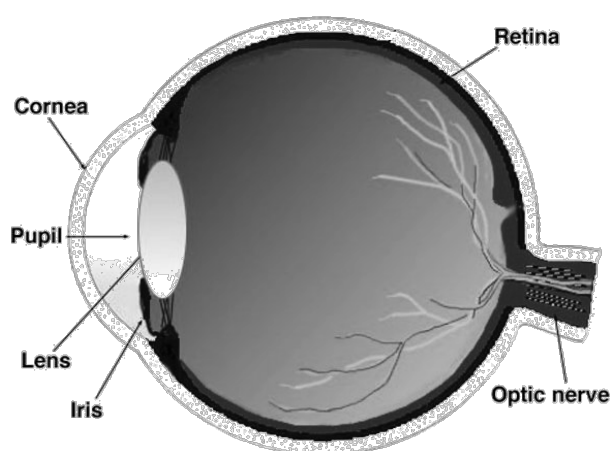
We hope this information will answer some of your questions about cataract surgery. Here we will briefly explain what cataracts are and what the operation involves. If there is anything you do not understand, or if you have any concerns, please tell us.

What is a cataract?

A cataract is the term used when the focusing lens inside the eye becomes cloudy; usually as part of the normal ageing process. Cataracts can occur at any age and are likely to occur earlier in patients with diabetes, in those who have taken medication such as steroid tablets long term for other medical conditions, or in those who have had an injury to the eye.

You can see in the diagram above that the lens is positioned inside the eye behind the pupil and iris – the coloured part of the eye. Light rays cannot pass as easily through a cloudy lens and as a result, vision worsens. The sight becomes blurred, making focusing difficult, despite glasses, and there may be problems with glare in bright sunshine or while driving at night.

It is common to have cataracts in both eyes even though one may be more advanced.



Photograph showing the clouding of the normally clear lens, caused by a cataract.



Iris **Cataract behind the pupil**

Eye after the permanent implant /intra ocular lens has been inserted



When is it necessary to have a cataract operation?

Just because your optician or doctor may have told you that you have cataracts, this does not mean an operation is inevitable.

The cataract does not have to be 'ripe' or advanced before it is removed. The decision whether or not to have cataract surgery depends on how much your daily life is affected by the difficulty you are having with your eyesight. It is important that you discuss this with your doctor in the clinic to help make a decision about whether or not an operation is necessary.

Cataract surgery

Cataracts are removed through a micro-incision (tiny cut) of about 3mm by surgery using phaco-emulsification, which is ultrasound and not laser technology. The natural lens is replaced with a permanent implant, which is injected or folded into the eye. The small wounds are self-sealing and do not usually need stitches.

If you have already had cataract surgery in one eye and this is the second eye, you may not have the same lens make and model as the first eye in the second eye.

What type of anaesthetic is used and will I need to stay in hospital overnight?

Most surgery is performed as a day case under local anaesthetic.

Drops, a gel, or an infusion around the eye (sub Tenons) are techniques used to freeze/numb the eye. The type of anaesthetic will be discussed with you at your pre-operative assessment.

Occasionally, a general anaesthetic is used (i.e. you will be asleep). If you are having general anaesthesia, you will need to fast for 6 hours before the operation. If you have a local anaesthetic, you should take all prescribed medications as usual on the day of the operation.

As a day case, you should expect to spend at least 3-4 hours in the ward from the time you are admitted.

Pre-operative Assessment Clinic

You will need to attend a pre-operative assessment clinic before the operation. This may be on the same day you see the eye doctor in clinic or on a separate occasion. You will see a specially trained ophthalmic nurse and, if necessary, a doctor too.

The aim of the pre-operative assessment is to ensure that all the investigations or tests are done before your hospital admission and to ensure we have all the information about your eye and general health, including your medications and any possible allergies you may have (such as to latex, iodine or shellfish, or medicines e.g. penicillin or sulphonamides).

Biometry measurements of the eye are taken to calculate the strength of the intraocular lens needed for your operation. You may also have blood tests.

If you wear soft contact lenses, you will need to stop wearing those two weeks before your assessment. If you wear hard contact lenses, you will need to stop wearing those four weeks before your assessment. Hard lens wearers may also need to have their biometry tests repeated four weeks later from the original test.

If you have had previous laser refractive surgery or retinal surgery, it is important to inform the staff about this at your pre assessment.

The day of the operation

On arrival on the ward, the nurses will give you some instructions. You will not need to undress but you should wear comfortable loose clothing and flat non-slip shoes. The nurses will put drops into your eye that numb it and dilate (enlarge) the pupil. The anaesthetist and the surgeon will see you before your operation, to go over again the procedure and the type of anaesthesia you will be having. The surgeon will mark the correct side for surgery with a pen mark on your forehead and ask you to sign the consent form, having answered any further questions you may have.

The operation and what to expect

You will have your anaesthetic – local or general – before surgery begins, so your eye area will be numb (local) or you will be asleep (general). The surgeon uses an operating microscope to carry out the cataract operation. You will have to lie flat and fairly still under the microscope for approximately 20-30 minutes. You will not be able to see what is happening but will see a bright light over the eye and hear noises from the machinery.

Your eyelashes, eyebrow and surrounding skin are covered by a sterile adhesive sheet. The sheet extends over your chest but is lifted up over your nose and mouth, to allow air to flow freely. You will be asked not to talk, cough or move during the procedure without warning the surgeon first. You will be advised to raise your hand or squeeze the assistant's hand first if you wish to move or speak. We will then know if you are uncomfortable or feeling pain.

If you have had a local anaesthetic, during the operation it is normal to:

- Feel a sensation of pressure in the eye
- To see bright coloured lights
- To feel water running down the side of your face.

This fluid keeps the equipment cool and occasionally escapes from the bag that catches it, and you may end up with a damp ear or hair on that side – for which we apologise! We advise you to remove your hearing aid before the operation for this reason.

Removal of the sticky sheet can be slightly uncomfortable, but you will be asked to resist the temptation to squeeze your eyelids shut while this is being performed. A pad and/or plastic shield are placed over your eye at the end of the operation, so you will not be able to see clearly from the operated eye at this stage. This will usually stay on until the nurse cleans and checks your eye.

After the operation

You will be taken back to the ward and your recovery monitored.

You will be given eye drops and clearly written instructions about how to care for the eye after the operation, including a list of 'dos and don'ts'. If this does not include any particular query you may have regarding post-operative restrictions, do not hesitate to ask a member of staff.

Please make your own arrangements to have your eye drops administered if you are not able to do this yourself. It is not usually possible for district nurses to provide this service. The drops are usually used four times per day for the first fortnight then reduced to morning and night for two further weeks. The drops should be spread out throughout the day, e.g. at breakfast, lunch, dinner and before bedtime. The one bottle provided by the hospital has enough drops for this period.

If you have had a general anaesthetic, it is important that you have a friend or relative to accompany you home and stay overnight with you.

You must not drive yourself after either a local or general anaesthetic.

We would like to check that you are doing well after surgery and have no post-operative problems, something which we have not been doing routinely in the past. In order to do this, a few weeks after your operation, you will get a phone call from *Dora*, our new computer system. *Dora* has been programmed to carry out reviews after cataract surgery and can answer any questions you may have. Before you leave hospital, your nurse will give you a letter explaining how *Dora* works and a date for the phone call.

Post-operative side effects

Your eye may feel scratchy and look bloodshot for a few days following the operation. The vision should gradually improve. If the eye becomes painful and/or the vision deteriorates, it is essential that you phone the hospital immediately. We will give you a contact number to use in the

event of any concerns. If you cannot speak to anyone, you should come to Eye Casualty.

When to change your glasses

You will need to change your glasses following the operation and you will probably not be able to see very clearly for reading until then. The time to book an appointment with your optician is about 6 weeks after surgery, when your eye should be fully recovered. If you are due to have second eye surgery, you may want to wait until this is done before you update your glasses.

If you have an office job, you can return to work whenever you feel able. If you work in a very physical profession or one that involves dusty or steamy environments, we would suggest two weeks off work after surgery. If you require a fit note, we can provide one – please ask us on the day of your operation.

Risks and complications of surgery

The vast majority of patients are delighted with the results of their cataract surgery, finding that the clarity and quality of colour vision have improved. As a result, quality of life often also improves substantially.

Most complications are minor and can be resolved at the time of surgery but very rarely, serious complications occur, such as bleeding and infection in the eye, which can result in permanent loss of vision.

Complications of which you should be aware include excessive inflammation, wound problems, rupture of the lens capsule, retinal detachment, or persistent swelling of the centre of the retina (cystoid macula oedema), which causes blurred vision. There can be dislocation of lens fragments into the back of the eye. If this happens, a second operation a week or two later is necessary to remove the remaining cataract pieces.

Sometimes, there is an unexpected refractive outcome. This means that the eyesight after the operation is more long or short sighted than

anticipated by the pre-operative calculation. If this happens, it may be necessary to remove the implant and exchange it during a second operation.

Very rarely, it is not possible to insert a lens implant during the operation and a second operation is required to put a lens in at a later stage.

In the long term, occasionally, the vision becomes blurred months or years following successful cataract surgery. This is due to thickening and fibrosis of the remaining lens capsule, which happens in about 5-10% of cases.

The thickening of the posterior capsule can be treated simply and painlessly by laser, as an outpatient procedure, restoring the vision again (a YAG laser capsulotomy).

Complications are rare, serious sight threatening complications occur at about 1:1,000 cases, but you need to have been told about them and presumed to have understood what you have been told so that you can make an informed or balanced decision about having your operation. You will be asked to sign a consent form declaring this.

Consenting (giving your permission) for cataract surgery

It is essential that you feel you have been given all the information you need to be happy with the decision to go ahead with a cataract operation. You may of course wish to decline treatment and ask about alternatives to surgery.

It is important that you are aware that all surgical procedures and anaesthetics have risks that can potentially happen to anyone. If the surgeon feels your particular eye has a greater risk potential because of co-existing problems, you will be advised about the increased risk.

If you would like further information, please ask a member of staff.

The following points are included in the consent form, which you will be asked to sign.

- I understand that a cataract is clouding of the lens within the eye and is not a film over the surface of the eye. It is not absolutely necessary to have it removed (except in rare circumstances) and I may choose not to have an operation, but to continue to manage as I have been with glasses/ contact lenses.
- I understand that removal of the cataract and replacement with a lens implant inside the eye requires a surgical operation not a laser procedure and an anaesthetic to numb the eye. All surgical operations involve a small risk of bleeding and infection (< 1:1,000).
- I understand that a permanent artificial lens will be placed in my eye. Rarely, it is not possible to insert a lens and a second operation may be required later. If the cataract (or fragments of the cataract) has gone into the back of the eye, I may require a second operation.
- I understand that the majority of people undergoing cataract surgery have better vision afterwards but the final level of vision cannot be guaranteed. A few patients may not have any improvement in their vision (especially if they have other co-existent eye problems such as age related macular degeneration, diabetic retinopathy, glaucoma, or a lazy eye) and a small number of people may have worse vision than before the operation or may require a second operation.
- I understand that I will probably still need to use glasses (or other lenses) after my operation, especially for reading.
- I understand that a local anaesthetic usually involves the use of an infusion around the eye, drops or gel, and that if I have a general anaesthetic (I am asleep) there is a small risk to my general health.
- I agree to the use of the type of anaesthetic I have been told about.
- I understand that teaching surgeons is an important function of this department. I understand that my surgery will be carried out by a doctor with the appropriate level of training and expertise. Surgeons being trained will be under the supervision of a consultant.
- I understand that any procedure in addition to what is described on this form will only be carried out if necessary and in my best interests

and can be justified for medical reasons. I have told the doctor about any procedure that I would not wish to be carried out.

Further information

- **Royal National Institute of Blind People (RNIB).** Find out more at www.rnib.org.uk or phone the RNIB Helpline on 0303 123 9999.
- **Royal College of Ophthalmologists** Tel: 0207 935 0702 www.rcophth.ac.uk/docs/publications/UnderstandingCataracts.pdf
- **The NHS Website** explains cataract surgery in detail, visit <https://www.nhs.uk/conditions/cataract-surgery/>.

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 8.30am 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 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)

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

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

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Next review due: August 2025

