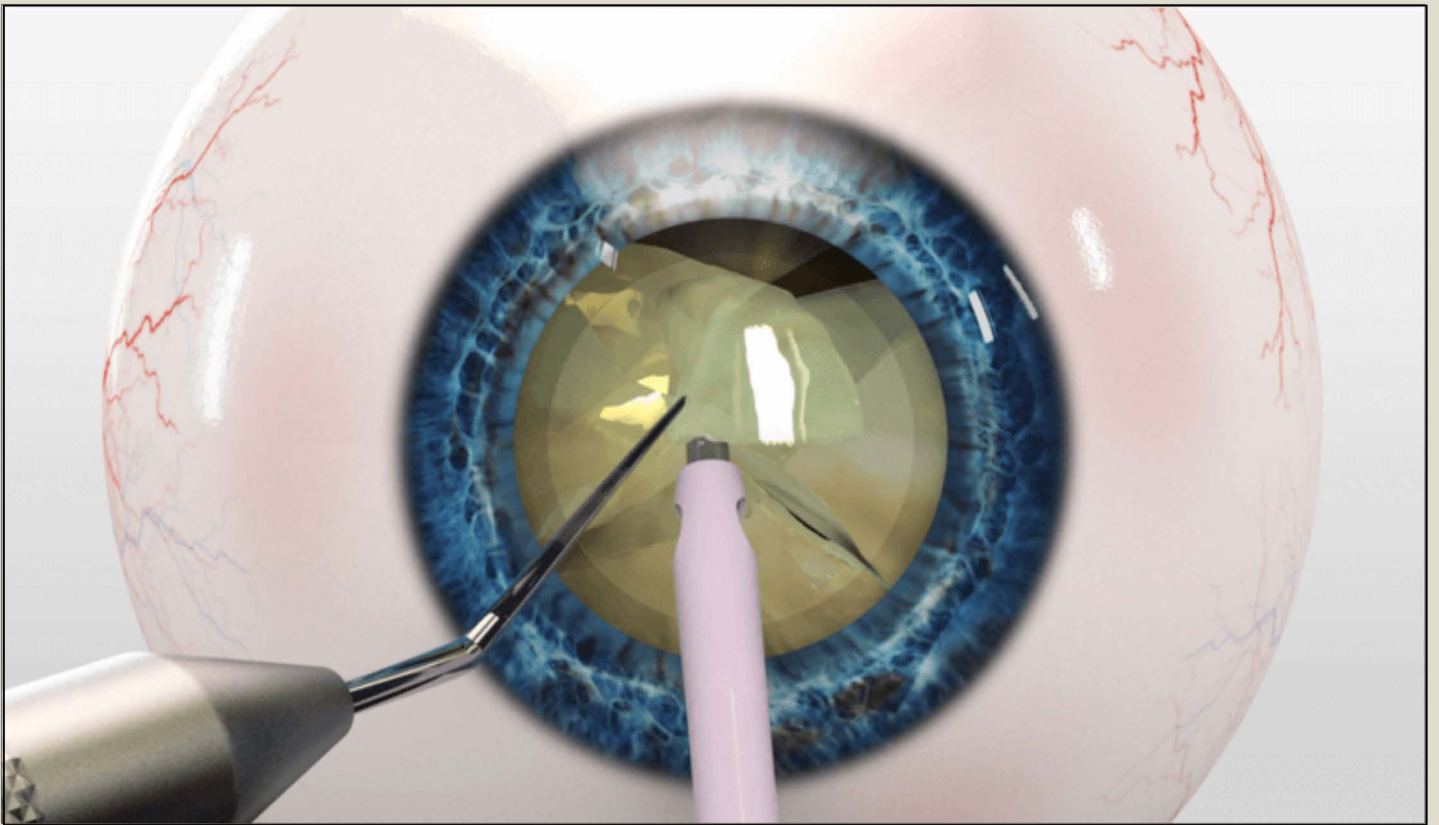




Group of Guidelines Consensus and
Education in Ophthalmology®

Cataract Surgery





Cataract Surgery

If you have problems reading this leaflet please ask us to send you a copy in a larger print size or in an alternative format.

If your first language is not English or Arabic we can arrange for an interpreter to be available. Please let us know in advance if you require this service.

This booklet has been designed to help answer some of the questions you and your family or friends understand the operation, to explain what is involved and what the possible risks are. If you have any questions and concerns, please do not hesitate to speak to a doctor or nurse caring for you.

Having a cataract removed should not disrupt your life greatly, but some extra care is required for few weeks after your discharge from hospital. We suggest if possible, that you arrange for someone to help you at home during the first week after discharge.

The pre-assessment is to ensure you are fit and prepared for the operation. It is essential that you attend, as we cannot perform your operation unless you have had this assessment.

You will be required to attend a pre-assessment clinic appointment prior to surgery. This may take place on the same day you attend the Outpatients Clinic and agree surgery or you may be required to attend an appointment at a later date.

What is a cataract?

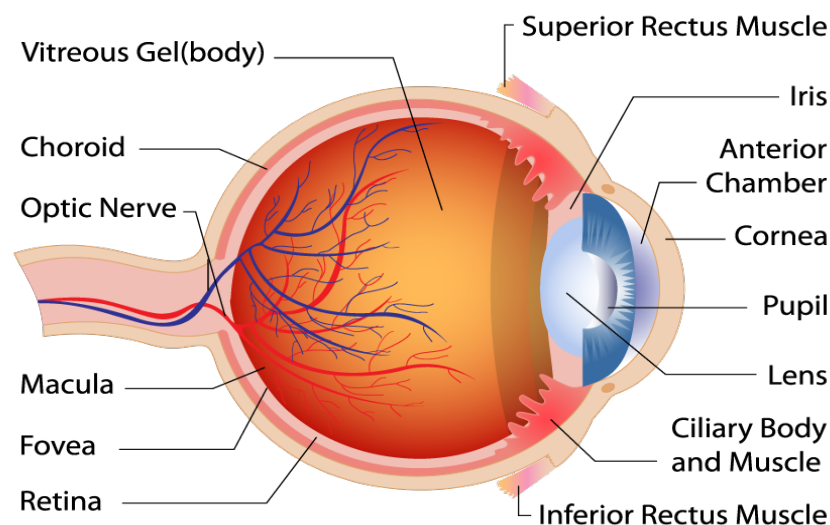
The human eye is like a camera and one of the essential parts is the lens. The lens is a clear tissue found behind the coloured part of the eye (the iris). The lens helps to focus light on the back of the eye (the retina) forming an image. Usually the lens of the eye is clear so that light passes through it easily.

If any cloudiness develops in the lens then it starts to block the light passing through and this causes blurring of your vision. This clouding of the lens is called a **cataract**.

Cataracts can develop as you get older and can occur because of diabetes or an eye injury. They can also occur in younger people for a number of reasons. Your sight will gradually become misty and you may be bothered by glare in bright light. If symptoms of the cataract affect your day-to-day activities, it is better to have the cloudy lens removed. Most of these cataracts can be treated successfully with surgery.

How will the cataract be removed?

Anatomy of the Eye



You will need to have an operation to remove the cataract and, usually, a replacement lens (intraocular implant) is positioned in its place.

What is an implant?

When the cataract lens has been removed, it is replaced with a man-made focusing lens. This is implanted into the space that has been occupied by your own natural lens. The replacement lens is permanently fixed inside your eye.

Implants, like glasses, come in different strengths. Each patient needs to have their eye measured by an ultra sound scan (A-scan) or a laser (IOL Master) machine to find the strength of the implant most suitable to them.

We will usually try to implant a lens, which is intended to give you good distance vision (for driving, cinema, TV, sport etc.). This may not always be perfect and you may still need to wear distance glasses.

Reading glasses will always be needed even if you did not need them beforehand.

If you prefer, we can aim to implant a lens that will enable you to do close work without reading glasses but you will then need glasses for distance. **Note:** If this is your preference you should inform the doctor who books you for the operation or the surgeon who will perform your operation.

There are newer lenses available that are approved by NICE (National Institute for Health and Clinical Excellence, UK) and by FDA (Food and Drug Administration, USA). These are called presbyopic correcting or toric lenses. These allow your vision to be corrected in the distance, and depending on the type of lens used, also your near vision.

If you wish to have a presbyopic correcting lens implanted, you will need to arrange this with the doctor who books you for the operation.

More information about presbyopic correcting lenses may be found on the National Institute for Health and Clinical Excellence (NICE) website: www.nice.org.uk/IPG264

Having a toric lens, an additional procedure called “peripheral corneal relaxing incision”, or Laser procedure would correct astigmatism and makes you less dependent on glasses after surgery.

Before the operation: Pre-assessment

At your pre-assessment appointment you will be given the opportunity to discuss the operation and anaesthetic.

You will be seen by an Optometrist/ Nurse/ Anaesthetist, who, if you are booked for surgery, will carry out a pre-assessment and all the tests we need you to have. Any problems or concerns can be discussed at this time including questions about driving, time off work etc.

Do I need to bring anything with me to the pre-assessment visit?

Yes, we would like you to bring:

- A list of all medications you are currently taking
- Details of any present or past medical history
- Details and documents related to previous refractive surgery
- Your phone number, including any mobile numbers
- The name, address and phone number of your next of kin

Contact lenses – If you wear contact lenses, you will need to stop wearing your lenses before any tests are carried out, as follows:

- Soft lenses: two weeks
- Hard lenses: four weeks

Consent

It is important that you understand the procedure, what the risks and benefits are to you and what the treatment involves. Please feel free to ask your doctor any questions that you may have before signing the consent form. You will be asked to sign a consent form for the operation.

Although you will sign a consent form for this procedure, you may change your mind and decide not to proceed with the operation.

Please discuss this with your surgeon.

What are the alternatives?

The only effective treatment for a cataract is an operation to remove the cloudy lens.

A cataract cannot be cured by taking drugs or by the use of laser. At present there are no treatments for this eye condition except surgery. The doctor in charge of your case has advised that you need an operation. After discussion with the doctor, if you do not want the operation done, you can decide against it.

What are the benefits?

The benefits of surgery include:

- Greater clarity of vision
- Improved color vision

What are the risks?

If you have age-related macular degeneration or conditions, such as diabetes or glaucoma, the improvement in vision may be limited, and depending on the extent of the condition it may deteriorate.

As with all procedures, operations and anesthetics there are possible complications, which may delay your discharge or require further treatment. Rarely, the operation can make the vision worse. Some of these risks include:

- Blindness
- Serious haemorrhage or serious infection
- Glaucoma
- Capsular tear and vitreous loss (increases in patients with history of diabetics/ intravitreal injections/ pseudoexfoliation syndrome)
- Wound dehiscence and iris prolapse
- Cystoid macular oedema
- Retinal detachment
- Deterioration in diabetic retinopathy or age-related macular degeneration
- Intraocular lens power miscalculation
- Further surgery (some patients may require an additional operation following cataract surgery)

You may wish to ask the doctor if you do not understand these medical terms.

Using modern methods, cataract surgery is very safe; in the majority of cases the vision is improved. This may not occur immediately after the operation and the time it takes can vary widely between patients.

Possible risks during the operation

- Tearing of the back part of the lens capsule with disturbance inside the eye that may sometimes result in reduced vision
- Loss of all or part of the cataract, into the back of the eye, requiring a further operation
- Bleeding inside the eye

Possible risks after the operation

- Bruising of the eye or eyelids
- High pressure inside the eye
- Very serious infection in the eye
- Clouding of the cornea
- A slight risk of intraocular implant moving in the eye.
- Swelling of the retina.
- Retinal tear or detached retina, which can lead to loss of sight (this is very rare)
- Allergy or reaction to the medication used
- The vision may become cloudy again. If the capsule on which the intraocular implant sits becomes hazy this can usually be successfully cleared with laser treatment.

Patients rarely develop problems during eye surgery or shortly afterwards that can impair the results. The medical and nursing staff will do everything possible to reduce any risks. You may discuss any concerns

with the Nurse/ Optometrist/ Anaesthetist at your pre-assessment appointment or with the doctor before surgery.
Minor complications occur more commonly but do not always affect the final results.

Will I feel any pain during the procedure?

Most cataract operations are carried out under a local anaesthetic. With this method only the eye is made numb and you will be awake. You will not see what is going on and you will not feel anything. The anaesthetic is given either by anaesthetic eye drops and / or an injection around your eye before the operation. Like any injection, this may be uncomfortable for a few seconds. Occasionally, sedation or a general anaesthetic combined with topical/local is required.

If a general anaesthetic is required, you will be given further relevant information.

Day case surgery/ How long will I be in hospital?

You will go home on the day of your operation. Unless your surgeon or anaesthetist thinks you should stay in longer due to a medical condition. Cataract surgery is usually a day case procedure.

Remember to arrange transport for:

- Admission to and discharge from hospital
- Follow-up appointments

Arrange for someone to:

- Stay overnight with you on the day of operation
- Put in your eye drops after the operation, if you are unable to do this yourself

On the day of operation

- Please arrive on time
- Follow advice given on not eating and drinking
- Bring all your medications with you
- Remove all make-up and nail varnish
- Do not wear any jewellery other than a wedding ring [which can be covered by tape on admission]
- Wear loose comfortable clothing, as you will be asked to put on an operating gown.

Please advise of any changes in your health or medication at this stage.

Please do not bring any valuables with you; we do not have the facilities to store large amounts of cash or jewelry - safer to leave at home.

Infection control

You will receive antibiotic eye drops to attempt reduce the possibility of infection occurring following the procedure. If there are any signs of eye/eyelid infection present on the day of your planned procedure, your treatment may need to re-booked for another time to allow control of such infection. Please inform your doctor or nurse if you have a sticky or discharging eye.

The procedure

A nurse will help you to prepare for your operation. You will have several eye drops administered prior to surgery to enlarge the pupil, they may sting a little and your pupil could remain temporarily dilated for several hours.

You will be taken into the Preoperative holding area where you will lie down. A member of theatre team will complete a pre-op checklist and escort you into the operating room, transferred onto the theatre bed and you will be asked to lie down flat, keep still and not talk during the operation.

- Monitoring may be attached if necessary-possibly just a clip placed on the finger to monitor oxygen levels and occasionally electrodes to your chest to monitor your heart. A Blood Pressure cuff may be placed on the arm to monitor your blood pressure.
- You will receive a local or general anaesthetic (as previously discussed with you and agreed).
- If you are having a general anaesthetic, sedation, or just a local anaesthetic, a cannula will be placed into the back of your hand to administer this. You will be monitored closely throughout.
- The area around your eye is cleaned and a sterile sheet placed over your face.
- An oxygen tube [nasal cannula] is placed under the sheet to administer oxygen and raise the sheet above your nose and mouth.
- A small clip is placed in your eye to keep it open.
- Some patients can be aware of a bright light from the microscope.
- If your eye feels uncomfortable during surgery, let a staff member know.

Your other eye will be covered and all you will see is bright light. During the procedure you may hear some noise from the machine that powers the ultra-sound probe. You may also see lots of different colours. You may

feel water on your skin; it is normal and linked to the procedure. The surgeon may explain to you what is happening as the operation goes along.

A small incision (cut) is made in the eye. A hole is made in the lens capsule covering the front surface of the cataract. The cataract is broken into very small pieces, which are then sucked out of the eye.

Once the cloudy lens is removed, a small plastic lens is inserted into the eye through the small incision, to replace the cloudy lens.

The plastic lens is folded and inserted inside the lens capsule through the cut in the front of the eye.

At the end of the procedure, some patients might need an “Intravitreal Injection” to manage the possibility of cystoid macular oedema/ Diabetic macular oedema [which could occur more often in diabetic patients] or to manage pre-existing Age related macular degeneration. The risks of this injection are included in the above mentioned cataract surgery risks. This injection is not painful.

On some occasions, surgeons might photo the inside of the eye/procedures is videotaped for training purposes, should it be the case, this should involve the eye only and will not in any way or form disclose patient's identity.

What should I do when I get home?

You will go home with the eye pad and or shield dressing in place which should be removed the following morning and the eye bathed as instructed by your nurse using cool, boiled water and cotton pads/gauze. It is important that anyone touching your eyes, (you included) wash their hands beforehand.

The prescribed/issued post-operative eye drops should be commenced as soon as you have cleaned your eye. The eye drops are usually prescribed for four weeks. You may need a friend or a relative to help you instil them.

Do:

- Instill your eye drops regularly as prescribed
- Use your eye shield at night for one week
- Wear sunglasses in bright sunlight for comfort for two weeks.
- Do back wash for your hair, and avoid hair spray/ perms/ tints as well as hair dryers for two weeks
- Avoid constipation
- Avoid smoky, dusty, and windy areas for two weeks
- Plan ahead any respite care needed for dependents

Don't:

- Rub or unnecessarily touch the operated eye for two weeks.
- Let soap, shampoo and water get in the eye for two weeks.
- Participate in strenuous exercise, swimming, bowls or golf or contact sports for two weeks.
- Undertake gardening or “Do It Yourself” duties for four weeks.
- Expose yourself to risk of infection from animals for four weeks.
- Sexual relations can be resumed gently 1 week after surgery.
- Avoid straining, bending over, or heavy lifting for four weeks after surgery.
- Avoid Kneeling and Prostration (sojood & rokooh at prayer) during praying for one week.

The day after surgery/ How will I feel afterwards?

Generally, patients experience very little pain after this operation.

Once you get home, if the eye is uncomfortable or feels gritty, take either Paracetamol tablets or any tablet you would normally take for a headache.

This should be sufficient to relieve any mild discomfort.

If your symptoms are more severe or persist, please contact the hospital.

Your vision may not clear immediately after the operation. The surface of your eye needs to heal and until this occurs your sight may be blurred.

You could also experience some transient double vision.

You should inform your doctor if you noticed: Persistent eye pain or decreased vision.

Some frequently asked questions

1-When is my first clinic appointment after surgery?

The nurse will advise you of this. It could be in your first week from the date of discharge. Please bring all your eye drops and medications to the clinic with you on that visit.

2-Please do not drive yourself for this visit as you will have drops put in your eyes, which will blur your vision.

It is important that you keep your appointments, please inform the clinic as soon as possible if you are unable to attend and need to rearrange the date.

3-Will I need new glasses?

Possibly, each patient is individual and you will be advised. However, the eye is a delicate structure and it takes time to settle down. You must wait at least four weeks before attending your opticians for new glasses.

4-When can I go back to work and when can I drive?

The surgeon will advise you at your first out-patient appointment.

5-Could a cataract return/ What is after cataract?

No, a cataract cannot return because all or part of the lens has been removed. However, in less than 20-37% of eyes, the capsule can become cloudy a few months or years later and causes the same problems as a cataract. This is easily treated by a Yag laser, which makes a small opening through which you will be able to see. It is a very short procedure and is performed sitting at a machine.

How to apply your eye-drops or ointment

1. Always wash and dry your hands before putting in the drops to prevent infection.
2. Sit or lie with your head tilted backwards and support it on the back of a chair, or a pillow for comfort and safety. Look up at the ceiling.
3. If the eye is sticky, used cooled boiled water to gently clean the lids, taking care not to poke the eye.
4. When putting the eye drops into your eye do not allow the bottle tip to touch your eye.
5. Gently pull down the lower lid with one finger to create a pocket for ease of access.
6. Holding the drop bottle on the bridge of your nose or your forehead, squeeze one drop into the eye.
7. Squeeze a drop or a 1 cm ribbon of ointment into the pocket of the lower lid.
8. Close your eyes for a timed five minutes.
9. Remove any excess eye drops/ ointment gently with a clean tissue and wash your hands again.

Storage of eye drops and ointments

1. Never share your eye drops with anyone else
2. Store drops and ointments in a cool place out of reach of children (only store drops in the fridge if requested to do so)
3. Dispose of all opened eye drops and ointments after one month

Further questions

We hope this information is sufficient to help you decide whether to go ahead with the surgery. Please write down any questions not covered in this booklet and ask the doctor when you come to the hospital for your appointment. All our staff will always be ready and happy to give you the information you need.

This brochure is not intended as a substitute for professional medical care. Only your eye specialist can diagnose and treat eye problems.

If you have any further questions or concerns please contact your doctor.

Your comments

We are always interested to hear your views about our leaflets. If you have any comments, please contact us.

Further information

More information about cataracts may be found on the Royal College of Ophthalmologists: Tel: (0044) 020 7935 0702
<https://www.rcophth.ac.uk/patients/cataract/>

References

This leaflet was edited by specialist ophthalmologists from the GCEO Group® who are licensed in the EU and the Middle East. This leaflet was edited based and in accordance to the guidelines of the:

- The American Academy of Ophthalmology (USA) - Preferred Practice Pattern Guidelines:

<https://www.aao.org/about-preferred-practice-patterns>

- The Royal College of Ophthalmologists (UK):

<https://www.rcophth.ac.uk/standards-publications-research/clinical-guidelines/>

- National Institute for Health and Care Excellence (UK):

<https://www.nice.org.uk/about/what-we-do/our-programmes/nice-guidance/nice-guidelines>

- The International Council of Ophthalmology:

http://www.icoph.org/enhancing_eyecare/international_clinical_guidelines.html

More resources:

The American Academy of Ophthalmology (USA) - Eye Health A-Z:

<https://www.aao.org/eye-health/a-z>