



Your Guide to Cataract Surgery



Sponsored by Moor Eye Care
www.mooreyecare.co.uk
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Getting Started

This information is given to you so that you can prepare for the discussion with your eye surgeon. This document will help you understand the risks of cataract surgery.

It will also help you decide the type of replacement lens you want.

Eyeglasses or contact lenses may be required for best vision after cataract surgery.

If you have any questions about cataract surgery you may wish to write them down so that you can ask your doctor or a member of the Moor Eye Care Team.



What is a cataract?

The lens in the eye can become cloudy and dense, a condition known as a cataract. Cataracts can develop from many causes such as normal ageing, from an eye injury, or if you have taken medications known as steroids. Cataracts may cause blurred vision, dull vision, sensitivity to light and glare, and/or ghost images. If the cataract changes vision so much that it interferes with your daily life, the cataract may need to be removed. Surgery is the only way to remove a cataract. You can decide not to have the cataract removed. If you don't have the surgery, your vision loss from the cataract will continue to get worse.

Visit www.mooreyecare.co.uk/what-is-a-cataract for more information on cataracts.

How will removing the cataract affect my vision?

The goal of cataract surgery is to correct the decreased vision that was caused by the cataract. During the surgery, the ophthalmologist (eye surgeon) removes the cataract and puts in a new artificial lens called an intraocular lens or IOL.

The IOL will be left in the eye permanently. Cataract surgery will not correct other causes of decreased vision, such as glaucoma, diabetes, or macular degeneration.

Most people still need to wear glasses or contact lens after cataract surgery for either near and/or distance vision and astigmatism.

For more information on cataract surgery visit www.mooreyecare.co.uk/cataract-surgery.



Your pre-operative appointment

When you come to Moor Eye Care for your cataract surgery you will enter a pathway of care.

The pathway consists of a number of steps before the day of surgery. These steps are normally carried out in a few appointments.

This is not the operation itself, but a visit that may last up to 2 hours.

Initial Consultation with the Eye Surgeon

If you agree to have the surgery, you will undergo a complete eye examination by your surgeon.

This may include an examination to determine your eyeglass prescription (refraction), measurement of your vision with and without glasses (visual acuity), measurement of the pressures inside your eye (tonometry), microscopic examination of the front part of your eye (slit-lamp examination), and examination of the retina of your eye with your pupils dilated.

He will also review your health history and discuss your personal options for cataract surgery, including the choice of lenses that are suitable for you.

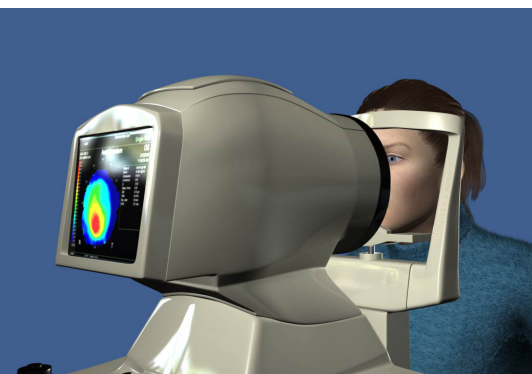
Technician appointment for eye measurements

In order to determine the appropriate lens to implant in your eye after cataract surgery you will need special eye testing carried out by a technician. These tests include; measurement of the curvature of your cornea (keratometry), measurement of the length of your eye (axial length), and intraocular

lens calculation (biometry). If you are having a deluxe or multifocal lens then you will need two additional examinations which include surface map of the cornea (topography) and a scan of your retinal (OCT or ocular coherence tomography).

To learn more about these exams visit

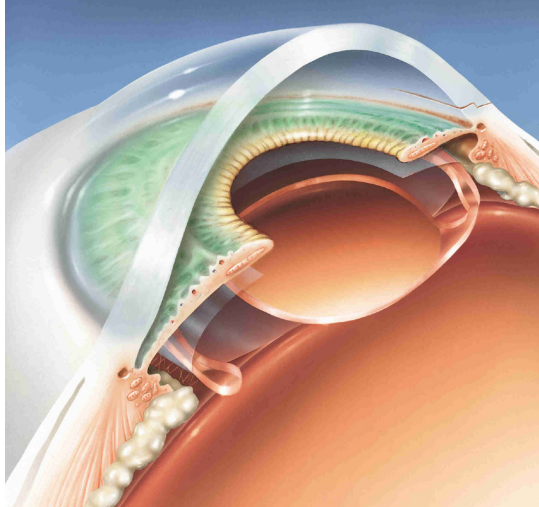
www.mooreyecare.co.uk/your-preoperative-assessment



Pre-operative nursing assessment

You will have a phone interview with the nursing staff at the hospital to ensure that there are no issues that will interfere with your surgery.

www.mooreyecare.co.uk



What you need to do to prepare for your pre-operative appointment and cataract surgery

Complete the medical history questionnaire and consent for data storage included in this pack and bring it with your to your appointment. Remember to list on your form all of your prescription medications, both eye-related and standard medications.

Bring your eyeglasses to your appointment with any new prescription from your optician. If you have prisms in your glasses to correct double vision please be sure to inform your doctor, as it will be necessary to continue

wearing glasses for this correction after surgery. Be prepared to have dilating drops in your eyes, so you may want someone to drive you to your appointment. If you wear contact lenses you need to discontinue wearing them for at least 3 weeks prior to any eye measurement testing.



Important Information

Need to stop wearing contact lenses prior to surgery

If you wear contact lenses, you must leave them out of your eyes for a period of time before your preoperative eye examination and before your

surgery. This is done because the contact lens rests on the cornea and distorts its shape, which can affect the accuracy of the doctor's measurements of the IOL power. When you stop wearing your contact lenses, the corneas can return to their natural shape. Stop wearing both soft and rigid (including gas permeable and standard hard) contacts for at least three weeks. If you wear rigid contacts, your vision will usually vary for a while as your corneas change shape. Although the cornea usually returns to its natural state within three weeks, this process may take longer, and you will need to remain contact lens free until your vision and cornea stabilise.

More information about measuring your IOL

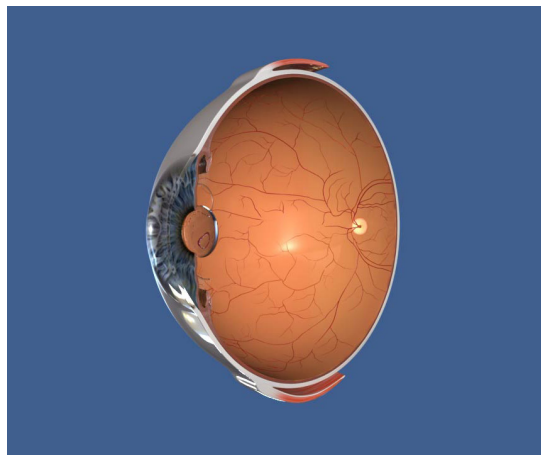
While the method used to calculate the power of the IOL is very accurate in most patients, the final result may be different from what you and your surgeon planned. As the

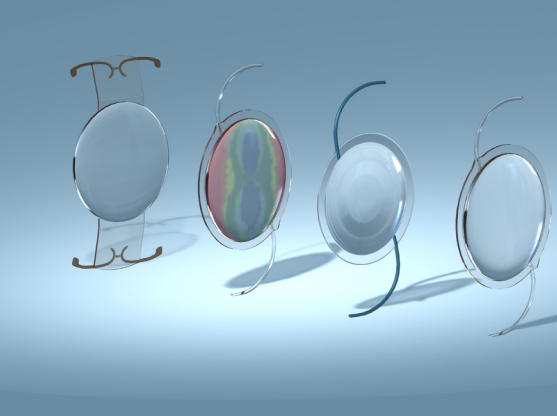
eye heals, the IOL can shift very slightly toward the front or the back of the eye. The amount of this shift is not the same in everyone, and it may cause different vision than predicted. If the eye's visual power after surgery is considerably different than what was planned, surgical replacement of the IOL might be considered. It is usually possible to replace the IOL or add a "piggy back" lens to improve the situation. Patients who are highly nearsighted or highly farsighted have the greatest risk of differences between planned and actual outcomes. Patients who have had LASIK or other refractive surgeries are especially difficult to measure precisely.

Information about treating astigmatism

Patients with nearsightedness and farsightedness often also have astigmatism. An astigmatism is caused by an irregularly shaped cornea; instead of being round like a basketball, the cornea is shaped like a rugby ball. This

change in shape can make your vision blurry. There are several treatment options for astigmatism: 1) you can have an IOL for near or distance vision and continue to wear glasses or contact lens for the astigmatism; 2) you can have a toric IOL placed in your eye, 3) you can have refractive surgery called LASIK or PRK, or 4) your surgeon can perform a procedure before, during, or after cataract surgery called a limbal relaxing incision. A limbal relaxing incision (LRI) is a small cut or incision the ophthalmologist makes into your cornea to make its shape rounder. More than one incision may be required.





Choosing a lens

Presbyopia and alternatives for near vision after surgery

Patients who have cataracts have, or will eventually develop presbyopia, which is a condition caused by ageing that develops when your eye loses its ability to shift from distance to near vision. Presbyopia is the reason that reading glasses become necessary, typically after age 40, even for people who have excellent distance and near vision without glasses. Presbyopic individuals require bifocals or separate (different prescription) reading glasses in order to see clearly at close range. There are several options available to you to achieve

distance and near vision after cataract surgery. This is probably the most important decision you need to make about your cataract surgery, so please take the time to review your options and ask questions.

Glasses

You can choose to have a monofocal (single focus) IOL implanted for distance vision and wear separate reading glasses, or have the IOL implanted for near vision and wear separate glasses for distance.

Monovision

The ophthalmologist could implant IOLs with two different powers, one for near vision in one eye, and one for distance vision in the other eye. This combination of a distance eye and a reading eye is called monovision. It can allow you to read without glasses. Many patients who wear contacts or who have had refractive surgery have monovision and are happy with it. Your surgeon will discuss and demonstrate this option to see if it might work for you.

Multifocal IOL

The ophthalmologist could implant a “multifocal” IOL. This is a “deluxe” type of IOL that provides distance vision AND restores some or all of your eye’s ability to focus. It corrects for both distance vision and other ranges, such as near or intermediate. These lenses are more expensive than standard IOLs and will involve an extra charge.



Segmented bifocal and segmented toric bifocal lenses

These lenses are different than other multifocal lenses in the way they are designed. They are similar to bifocal spectacles with a window at the bottom of the lens

cut out for near vision.

The benefit of this type of lens is that there are fewer problems with haloes and glare as compared to other multifocal lenses. It can be placed in the dominant or non-dominant eye, it can be placed in one or both eyes and there is less time needed to adapt to the lens. The disadvantage is there may be less clarity for intermediate distance such as for working on the computer.

For more information on premium lenses and how to choose a lens visit www.mooreyecare.co.uk/specialty-lens and www.mooreyecare.co.uk/choosing-a-lens

The Surgery

Understanding the risk of the surgery or “what can go wrong” is an important part of making the decision to go forward with the procedure.

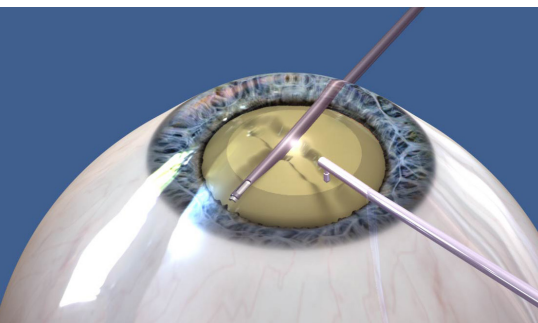
Cataract surgery is usually very successful with over 95% occurring without complications.

Please read the following

information carefully and bring any questions you have to the doctor at your preoperative assessment appointment.

Anaesthesia, Procedure, and Postoperative Care

The ophthalmologist or the anesthesiologist/nurse anesthetist will make your eye numb with either drops or an injection (local anesthesia). You may also undergo light sedation administered by an anesthesiologist or nurse anesthetist, or elect to have the surgery with only local anesthesia. There are risks associated with general anesthesia and sedation. These include injury to the eye, heart and breathing problems, and in very rare cases, death.



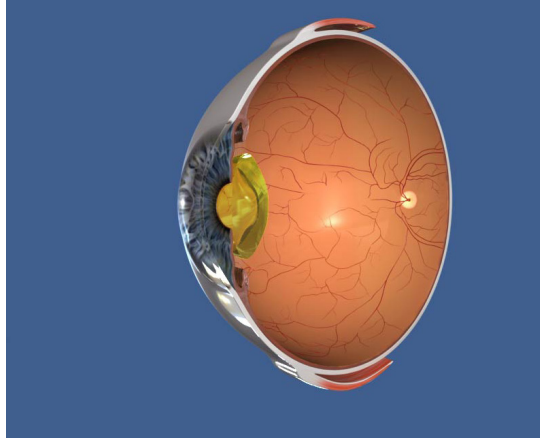
An incision, or opening, is then made in the eye. This is at times self-sealing but it may require closure with very fine stitches (sutures) which will gradually dissolve over time. The natural lens in your eye will then be removed. There are several ways to remove the lens; the most common technique is called phacoemulsification, which uses a vibrating probe to break the lens up into small pieces. These pieces are gently suctioned out of your eye through a small, hollow tube inserted through a small incision into your eye. After your natural lens is removed, the IOL is placed inside your eye. In rare cases, it may not be possible to implant the IOL you have chosen, or any IOL at all.

During the immediate recovery period, you will place drops in your eyes for about 2 to 4 weeks, depending on your individual rate of healing. Even if you have chosen monovision or a multifocal IOL to reduce your dependency on glasses or contacts, they may still be required either

for further improvement in your distance vision, reading vision, or both. You should be able to resume your normal activities within 2 or 3 days, and your eye will usually be stable within 3 to 6 weeks, at which time glasses or contact lenses could be prescribed.

Risks of cataract surgery

The aim of cataract surgery is to improve your vision through the removal of the cataract. Over 95% of cataract surgeries occur without complications. However, no surgery is without risk and it is important to understand possible complications that can happen with the surgery. This is an essential part of the consent process that is required for you to go forward with the procedure. This is a listing of possible problems and may seem overwhelming at first but be reassured that most often the procedure is safe and effective. Concerns and questions that may arise from reading this



list can be addressed at your appointment with the surgeon.

Visit www.mooreyecare.co.uk/cataract-surgery to view risk of cataract surgery video.

The major risks of cataract surgery with implantation of an IOL include, but are not limited to:

1. Mild discomfort. Cataract surgery is usually quite comfortable. Mild discomfort for the first 24 hours is typical, but severe pain is extremely unusual and should be reported immediately to the surgeon.
2. Complications of removing the natural lens may include bleeding (hemorrhage); rupture of the capsule that supports the IOL; perforation of the eye; clouding of

the normally clear outer layer of the eye called the cornea (a condition known as corneal edema), which can be corrected with a corneal transplant; swelling in the central area of the retina (called cystoid macular edema), which usually improves with time; retained pieces of lens in the eye, which may need to be removed surgically; infection; detachment of the retina, which is definitely an increased risk for highly nearsighted patients, but which can usually be repaired; uncomfortable or painful eye; droopy eyelid; increased astigmatism; glaucoma; and double vision. These and other complications may occur whether or not an IOL is implanted and may result in poor vision, total loss of vision, or even loss of the eye in rare situations. Additional surgery may be required to treat these complications. The cost for this additional surgery is not included in the price you pay for the cataract surgery.

3. Complications associated

with the IOL may include increased night glare and/or halos, double or ghost images, and dislocation of the IOL. Multifocal IOLs may increase the likelihood of these problems, so you should think carefully about how these problems might effect your job, your hobbies, and your daily life. In some instances, corrective lenses or surgical replacement of the IOL may be necessary for adequate visual function following cataract surgery.

4. Complications associated with limbal relaxing incisions include damage to the cornea, infection, and fluctuating vision while the incision heals. They can also lead to under- and over-correction; if this occurs, another procedure and/or glasses or contact lenses may be required.

5. Complications associated with local anesthesia injections around the eye include a hole (perforation) of the eye, injury to the optic nerve, interference with the circulation of the retina,

droopy eyelid, breathing problems, low blood pressure (hypotension), heart (cardiac) problems, and in rare situations, brain damage or death.

6. If a monofocal (single focus) IOL is implanted, either distance or reading glasses or contacts will be needed after cataract surgery for adequate vision.

7. Monovision may result in problems with impaired depth perception. Choosing the wrong eye for distance correction may result in feeling that things are the "wrong way around." Once surgery is performed, it is not always possible to undo what has been done, or to reverse the distance and near eye without some loss of visual quality.

8. Multifocal (multiple focus) IOLs may reduce dependency on glasses but might also result in less sharp vision, which may become worse in dim light or fog. They may also cause some visual side effects such as rings or circles around lights at

night. It may be difficult to distinguish an object from a dark background, which will be more noticeable in areas with less light. Driving at night may be affected. If you drive a lot at night, or perform delicate, detailed, "up-close" work requiring closer focus than just reading, a monofocal lens in conjunction with eyeglasses may be a better choice for you. If complications occur at the time of surgery, a monofocal IOL may need to be implanted instead of a multifocal IOL. If you chose a multifocal IOL, it is possible that not all of the near (and intermediate) focusing ability of your eye will be restored. Additional treatment and/or surgery may be necessary.

9. If complications occur at the time of surgery, the doctor may decide not to implant an IOL in your eye even though you may have given prior permission to do so.

10. Other factors may affect the visual outcome of cataract surgery, including other eye diseases such as glaucoma, diabetic



retinopathy, age-related macular degeneration; the power of the IOL; your individual healing ability; and, if certain IOLs are implanted, the function of the ciliary (focusing) muscles in your eyes.

11. Your doctor will use special equipment and computer formulas to select the best IOL for you, but the result may be different than what was planned. You may need to wear glasses or contact lenses after surgery to obtain your best vision. Additional surgeries such as IOL exchange, placement of an additional IOL, or refractive laser surgery may be needed if you are not satisfied with your vision after cataract surgery.

12. Regardless of the IOL chosen, you may need laser surgery (a YAG capsulotomy) to correct clouding of vision. At some future time, the IOL implanted in your eye may have to be repositioned,

removed surgically, or exchanged for another IOL.

13. If your ophthalmologist has informed you that you have a high degree of farsightedness (hyperopia >5.0 diopters) and/or that the axial length of your eye is short (18.0mm), your risk for a complication known as nanophthalmic choroidal effusion is increased. This complication could result in difficulties completing the surgery and implanting a lens, or even loss of the eye.

14. If your ophthalmologist has informed you that you have a high degree of nearsightedness (myopia >-7.0 diopters) and/or that the axial length of your eye is long (> 25.00 mm), your risk for a complication called a retinal detachment is increased. Retinal detachments can usually be repaired but may lead to vision loss or blindness.

15. Since only one eye will undergo surgery at a time, you may experience a period of imbalance between the two eyes (anisometropia). This usually cannot be corrected with eyeglasses because of the

marked difference in the prescriptions, so you will either temporarily have to wear a contact lens in the non-operated eye or will function with only one clear eye for distance vision. In the absence of complications, surgery in the second eye can usually be accomplished within 2 to 4 weeks, once the first eye has stabilised.

16. There is no guarantee that cataract surgery will improve your vision. As a result of the surgery and/or anesthesia, it is possible that your vision could be made worse. In some cases, complications may occur weeks, months or even years later. These and other complications may result in poor vision, total loss of vision, or even loss of the eye in rare situations. You may need additional treatment or surgery to treat these complications. This additional treatment is not included in the fee for this procedure.

For more information on cataract surgery visit www.mooreyecare.co.uk/cataract-surgery

Postoperative Follow-up

Someone will call you approximately 2-3 days following your operation to check to see if you are having any problems due to surgery, as well as book a follow-up appointment with your doctor.

This appointment is usually 2-4 weeks following the operation. The doctor will check your lens, review your vision and satisfaction with the surgery.

Rarely, if there is a problem with your surgery or lens he may advise you on additional procedures which will be necessary to reach an optimal outcome.

If you have a standard lens you may not require follow-up with the surgeon and can simply see your optician around 4-6 weeks after surgery.

At which time you can be fitted for any glasses you may require.

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