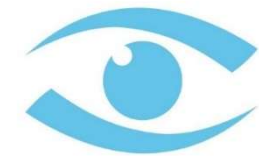


**Your Guide to**  
**Vision Correction Surgery**  
**and**  
**Advanced cataract Surgery**

**VISION**  
**Correction**  
**surgery**

State-of-the-art laser and non-laser  
corrective eye surgery



**EYE  
CORRECTION  
CENTRE**

- 👁️ Laser eye Surgery
- 👁️ Implantable Contact Lens Surgery
- 👁️ Lens replacement Surgery
- 👁️ Cosmetic eye Surgery
- 👁️ Advanced Cataract Surgery
- 👁️ General eye Services

To arrange a consultation

Telephone 0330 8083252 (standard national calling rates)

email: [secretary@eyecorrectioncentre.co.uk](mailto:secretary@eyecorrectioncentre.co.uk)

[www.eyecorrectioncentre.co.uk](http://www.eyecorrectioncentre.co.uk)

# What does Vision Correction Surgery / Advanced cataract surgery mean:

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Patients seeking such surgeries often use glasses/contacts to correct a refractive error to enable focussed vision for distance AND/OR near vision.

In patients with cataracts, the cataracts are in addition to an inherent refractive error and in fact can make the refractive error worse.

Vision Correction Surgery is undertaken to correct a refractive error.

In Advanced cataract surgery, patients have combined clearance of the cataract and simultaneous vision correction to manage refractive errors (via steps which can be conveniently undertaken at the time of cataract surgery)

There are different types of refractive errors that affect patients and which can be corrected as detailed below:

- **Short-Sight (Myopia)** – represented by a minus (-) in your prescription where it says sphere (sph)

If you are short-sighted you will be able to see close objects clearly, but those further away will be blurred.

- **Long-Sight (Hyperopia or Hypermetropia)** – represented by a plus (+) in your prescription where it says sphere (sph)

In general, if you are long-sighted your vision will be blurred for distance and near but more for near.

- **Astigmatism** – represented by the cylinder(Cyl) section of your prescription being filled with a (+) or (-) value with an axis in degrees

Astigmatism is commonly described as being due to a 'rugby ball' shaped eye, rather than a spherical, or football shaped eye.

A small degree of astigmatism is very common and may be found in association with either long or short sightedness and does not always need correction.

- **Presbyopia** – represented by an ADD section being filled with a (+) value

This is a normal ageing process where it becomes increasingly harder to read and focus on near objects.

## Surgical correction options:

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- **Laser vision correction (LASIK, LASEK, ReLex)**

A common form of refractive surgery at present is Laser Vision Correction. This is when a *femtosecond* and/or an *excimer* laser is used to precisely reshape the cornea and thereby improve focus, reducing dependency on spectacles or contact lenses.

The Excimer Laser uses exact and accurately controlled pulses of light energy to reshape the cornea and thereby modify focusing.

The Femtosecond laser uses extremely precise pulses of light energy to separate corneal tissue. It is used in LASIK to create a flap under which the cornea can be reshaped using the excimer laser. In ReLEX the femtosecond laser is used to create a precise 'lenticule' within the cornea that is then removed through a small incision.

The choice of the specific laser technique applied (LASIK, LASEK, ReLex-SMILE) depends on the individual patients eye measurements and preferences based on the factors discussed at the consultation.

Wavefront guided treatment: Provides the opportunity to customise treatment patterns and deliver 'Tailor-made' ablation to address what are called higher order aberrations. At the Eye Correction Centre *all* Laser Vision Correction patients undergo Wavefront analysis, and are offered Wavefront guided treatment if suitable at no extra cost. We consider it an integral part in the assessment pathway and not an optional extra.

Laser surgery can correct significant degrees of myopia, hyperopia, and astigmatism. Presbyopia (Near vision) correction with laser is possible to a moderate degree using techniques like monovision or specialised treatment profiles like "Presbyond" which we are able to offer.



- **Lens based surgery**

Laser Vision Correction is not suitable or the best option for everyone. For some people other refractive procedures may be more appropriate. Examples include people with high or extreme degrees of refractive error or people in whom there is a chance that they may start to develop or have developed age-related lens changes called cataract.

In Lens Replacement a precision-made intra-ocular lens is used to replace the natural crystalline lens of the eye. A variety of such lenses are available: they can be used to correct virtually any degree of long or short-sightedness and can also be designed to cope with any degree of astigmatism. They can be used to effectively overcome the need for reading glasses (using multifocal lens technology)

Intra-ocular lenses have a long track-record; they have been used effectively for over fifty years so are recognised to be stable long-term.

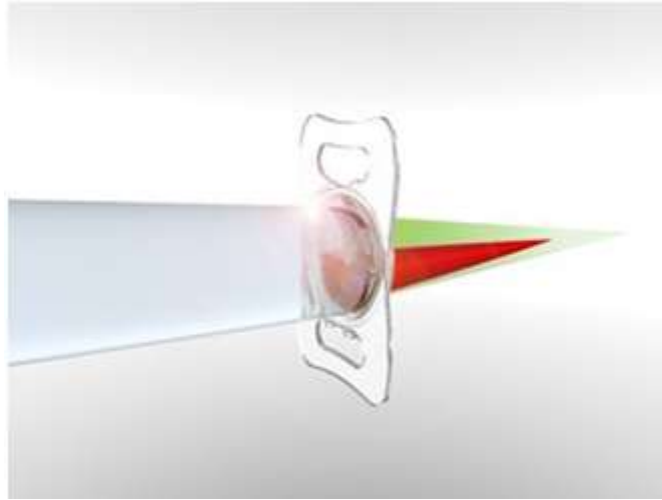
Insertion of these lenses is an intra-ocular procedure (within the eye), distinct from Laser Vision Correction which is extra-ocular (outside the eye). Modern small-incision lens-surgery is very precise and controlled, but the nature of the treatment does mean the risks, although still very low, are slightly greater than for Laser Vision Correction.

***Multifocal Intra-ocular lenses after lens extraction***

Multifocal lenses, used at the time of Lens Replacement, are becoming a very popular option to reduce or eliminate the need for reading as well as distance glasses. They start to become a real alternative to Laser Vision Correction with increasing age.

Such lenses have been available for a number of years but have now become so refined that the large majority of people are very happy with the results of their insertion. 'Multifocal' lenses are in reality 'bifocal' (or 'trifocal'), in that they have two (or three) distinct focal lengths: reading (intermediate) and distance. However, they are *not* like bifocal glasses, where reading vision is only obtained when looking through the lower part of the lens and vice versa. With multifocal intra-ocular lenses, near and distance vision is achieved in all positions of gaze.

One major advantage of lens replacement for the older patient is the stability of the refractive result. After a short recovery period, the results will thereafter remain stable throughout life. As the eye's natural lens has been replaced, it is impossible to develop cataract in old age.



### ***Phakic Intra-Ocular Lenses***

A 'phakic lens' is inserted into the eye in addition to (not replacing) the lens already sitting in place. The lens already in place may be the natural crystalline lens, or in some cases an artificial lens implant from a previous cataract surgery. These implants can be thought of as permanent intra-ocular (within the eye) contact lenses.

This method is used to treat refractive errors when laser eye surgery is deemed unsuitable for safety reasons e.g. the patient has a very high refractive error which is outside the limits of safe laser surgery, or if there is an inherent weaknesses in the causing concern for safe laser surgery - such as when the cornea is too thin.

In young patients where the phakic lens is placed over the natural lens, patients can maintain (like laser vision surgery) their natural accommodation (the ability of the eye to change its focus from distant to near objects).

In the case of patients where it is used over a previous cataract operation, the objective would be to fine tune the results from previous cataract surgery i.e. correct any residual refractive errors that a patient has been left with necessitating glasses/contacts for focussed vision.

Insertion of Phakic Intra-ocular lenses is an intra-ocular procedure. This means that the risks are low, but slightly greater than those of Laser Vision Correction. Unlike Laser Vision Correction or Lens Replacement, Phakic Intra-ocular Lens insertion is potentially reversible. A big advantage of this is that side effects can often be arrested by removing the lens if deemed to be a problem.

# The process if you come to see us:

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## Initial assessment



The assessment is thorough and is usually involves stages.

Stage 1 (required mainly for potential laser patients / phakic intraocular lens correction patients - usually takes about an hour)

1. A thorough Refraction (prescription assessment) with the optometrists. The Optometrists role is to determine an accurate refraction and to consider the stability of that prescription. They will also look at how your eyes coordinate and advise the surgeon accordingly.
2. The optometrist will need to dilate your pupils so that he can obtain detailed measurements and examine your eyes internally. The dilating drops will blur your vision a little and they can last for some hours: so please do not plan to drive yourself home.
3. The optometrist will then compile your results and prepare them for the surgeon to assess.

Stage 2 (usually takes about an hour)

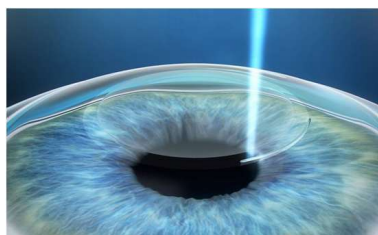
1. An introduction by our surgeon and a chat about your needs and expectations. Our surgeon will consider your age and your prescription to help us decide which tests are most appropriate during your assessment. In this service you will therefore have had the opportunity to meet your potential surgeon at the decision making stage rather than on the day of your surgery as can happen in some of the more commercial providers.
2. Measurements. There are whole raft of measurements that need to be taken. The measurements will vary, but may include:-
  - Pupil size, especially in low light conditions
  - Pachymetry (measurement of corneal thickness)
  - Topography / Tomography (measurement of corneal shape)
  - Biometry (measurement of the length of your eye and the positioning of the internal structures).

3. Examination – Our surgeon will examine your eyes in detail. They will use a microscope to examine both externally and internally. It may be required to dilate your pupils so that we can examine your eyes internally and this will blur your vision a little which can last for some hours: so please do not plan to drive yourself home. The assessment is informal and relaxed; there is no pressure to proceed with any form of surgery. It is simply your opportunity to find out if you are suitable, to discuss the options that are available, and to ask any questions you may have, directly to a refractive surgeon.
4. Discussion – It is only after all these tests have been completed that our surgeon will be able to discuss accurately the treatment options that are available to you. We feel it is important that all prospective refractive surgery patients are able to meet their surgeon at the decision making stage and ask any questions that they may have direct to that surgeon. It is a big decision that you are making and that decision should be based on the very best advice available.

### **The surgery**

Should you decide to proceed with laser surgery the process is as follows:

1. All scans are completed and checked for accuracy.
2. All measurements are then put in a sophisticated software to calculate precisely the treatment parameters before setting up for the laser itself.
3. Anaesthetic eye drops are used to numb the surface of your eye.
4. You are guided into the laser room where the procedure is performed. The procedure is quick, taking typically 20-30 minutes for both eyes, and people are often surprised at how comfortable the procedure is.
5. Following a quick check and instruction about post-operative care and follow-up, you will be free to go.



Should you decide to proceed with lens surgery the process is as follows:

1. Anaesthetic eye drops are used to numb the surface of your eye.
2. Pupil dilating drops are applied for about an hour.
3. You are guided into the operating room where the procedure is performed. The procedure is quick, taking typically 20-30 minutes for each eye, and people are often surprised at how comfortable the procedure is.

4. Following a quick check and instruction about post-operative care and follow-up, you will be free to go.



### **Recovery and follow up**

During recovery the patient can expect some tolerable discomfort, watering and sensitivity to light. The speed of visual recovery does vary depending on the technique applied and the error corrected. Patients get rapid improvement over the next day or so.

Because initially the vision is unsettled we recommend that you have someone with you to ensure that you can get home safely after your surgery.

You should plan for a relaxed day following treatment: lots of people have a sleep in the afternoon.

Review appointments are arranged over the next few weeks to monitor for a good healing response.





# The Team

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The team has grown over the years to a large number of dedicated staff who will work closely together to meet your needs.

Typically the clinical team comprises:

- Ophthalmology specialist doctors
- Nurse specialists
- Orthoptist specialists
- Medical photographer
- Out-patient nurses
- Ward nurses
- Theatre nurses
- Optician partners

To learn more about the members of the team who are there to serve you, please click the link: <https://eyecorrectioncentre.co.uk/about-us/>

# Risks of Surgery

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No operative procedure can ever be 100% predictable.

As a general rule of thumb patients can expect a 95% chance of achieving functional vision to a high standard (corresponding to their best vision potential) from their initial surgery.

As with all forms of surgical treatments there are risks of unpredictable outcomes and complications. 1 to 5% of patients may have some difficulties but in the majority of cases these can be managed. The risk of severe and lasting problems is very low at 1:2500 or less per eye (so both eyes getting affected is very rare indeed).

You will of course be given a full explanation of the specific risks and benefits of the individual procedure applicable to you at the time of the consultation.

The response of natural tissue will always vary between individuals. It is well accepted that enhancements are necessary in a small proportion of Vision Correction patients, but, the large majority of these patients are happy after enhancements

## **Side effects and complications of Laser Surgery**

Although uncommon, possible problems are:

- Persistent Dry eye' symptoms & discomfort
- Glare and Haloes
- Fluctuation in vision
- Corneal Haze
- Infection
- Flap complications - specific to LASIK.
- Ectasia - This is an exceedingly rare complication
- Decreased vision
- Persistent need for glasses / Contact lenses

## **Side effects and complications of Lens Surgery**

Although uncommon, possible problems are:

- Disturbance of the gel in the eye
- Failure to receive a lens implant
- Swelling and scarring
- Retinal damage

- Infection/Bleeding
- Glare, halos & Ghosting
- Persistent discomfort
- Anaesthetic risks
- Decreased contrast sensitivity
- Decreased vision
- Persistent need for glasses / Contact lenses
- Need for complex and higher risk IOL exchange procedures

# Why choose the Eye Correction Centre

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We invite you to choose us to help with your eye care needs because:

At Eye Correction Centre, we pride ourselves on the delivery of high quality and individualised services to our patients.

1. We provide **Expert consultant delivered care** from start to finish. Unlike some other providers who market their services as “consultant led services” (meaning you are triaged by non-medically qualified staff who work on cookie cutter protocols), our “consultant delivered services” means that you will see your treating consultants from the start and through the entire journey of your treatment. We believe that our patients deserve the best and not be in a production lines system adopted by chain organisations. All our surgeons are world-renowned specialists and are experts in the subspecialties that they practice.
2. The **Clinicians are highly reputed** and are recognised regionally, nationally & internationally amongst patients and also medical peers. **Eye care professionals themselves often choose our services** to avail second opinions to help with complex patients and also to obtain care for themselves and their family members.
3. We provide **Tailor made personalised solutions**. We treat each patient as an individual and seek to establish & service your specific requirements rather than following a production line system. We apply the best treatment options to obtain the best possible results based on the individual patient requirements.
4. We put **Safety as a very high priority**. We have audited **Exceptionally Low Complication Rates** well below national complication benchmarks.
5. We provide **Prompt & Flexible Scheduling** – Surgery for both eyes are typically within 1-2 weeks of your initial consultation, so there’s no need to wait until your vision worsens.
6. We provides for **All anaesthesia options** – Most cataract surgeries are performed with local anaesthesia, but general anaesthesia or sedation is available for those who prefer it.
7. We are very **Competitive in our pricing** structure but at the same time we are transparent. We operate on a no pressure system and after your initial consultation we encourage you to take your time to make your own mind up on if and how you would like to proceed.

## Contact Us

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