CENTRE FOR SIGHT

UNDERSTANDING LASER EYE SURGERY

"High quality and friendly advice and care, every step of the way. I was most impressed by the results: waking up next morning to rediscover that pure quality of vision I'd missed for years in wearing contacts and glasses."

Matthew Boxall **Surrey**

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Why choose Centre for Sight

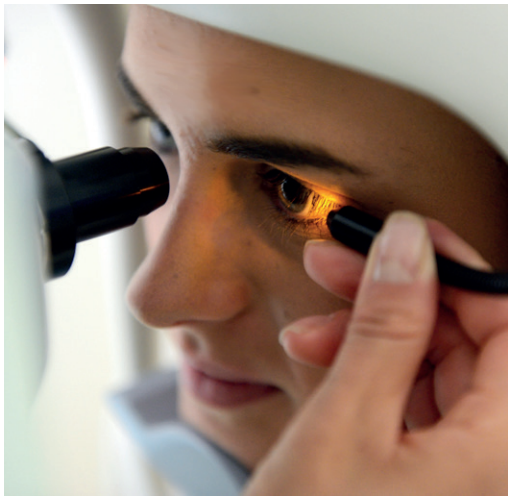
Centre for Sight was established in 1996 with the purpose of providing exemplary care and at very high standards. The organisation is now a leading provider of medical and surgical eye care and the UK's longest provider of LASIK laser eye surgery.

As pioneers in eye care, our ethos is to exceed patients' expectations, focusing on their experience and outcomes. Surgeon-led care is provided from initial consultation through to surgery and aftercare. Every patient receives tailored treatment for each eye with bespoke care and attention to suit their individual needs and lifestyle.

Our laser eye surgeons are all fellowship-trained (super-specialised beyond basic eye surgery training) in cornea and refractive surgery. Preoperative assessment and plans for surgery are carried out in advance directly by an eye surgeon, giving you added reassurance that your evaluation has been as thorough by the treating eye surgeon as possible.

Centre for Sight continually strives to set high standards of care for others to follow. The centre was rated outstanding for being well-led and an overall 'good' by the Care Quality Commission (CQC), the regulator that monitors and inspects all organisations providing care to ensure standards are being met.

We have been awarded ISO 9001, ISO 14001 and ISO 27001 accreditation demonstrating our ongoing commitment to delivering the highest levels of service within our clinics, putting our patients' needs and expectations at the forefront of our business.



Our centres all offer a seamless experience using the most up to date technology to support surgeons in making diagnoses and decisions about each patient's care. Surgery is performed in either Oxshott in Surrey or in the award-winning purpose-built hospital in East Grinstead.

Perhaps the highest accolade is that we receive a great many referrals from patients who are delighted with their outcomes and optometrists who have complete trust in us to deliver the very best eye care. We are also often the choice for many doctors and eye surgeons and a referral centre for the remedial care of problems from other laser eye centres.

Laser eye surgery

Introduction

Laser eye surgery has a long history approaching four decades, first performed in 1987. Over the years the procedure has changed with phenomenal refinement in technology to what is now very sophisticated with a high safety profile which is effective and reliable. The procedure can be used to treat all refractive errors reducing dependency on glasses and contact lenses. Central to success is adherence to high standards, good patient selection, appropriate technology, and surgeon expertise.

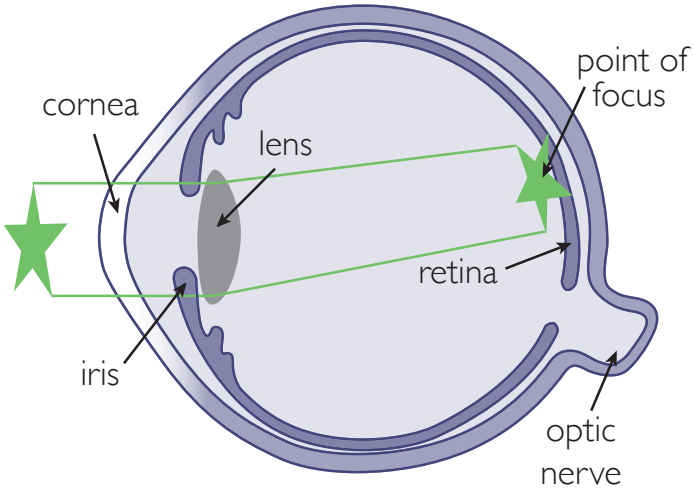
Laser eye surgery next to cataract surgery is the most common procedure performed in the world with an estimated 60 to 80 million procedures performed to date. Many of you will know someone who has been treated and will speak evangelically about how it has been liberating and life changing.

The goal of this booklet is to provide you with an overview of laser eye surgery as practiced at Centre for Sight. Surgeons have been involved in laser eye surgery since 1990 and our founder Sheraz Daya is a well-known authority and pioneer in the area.

Why do I need glasses?

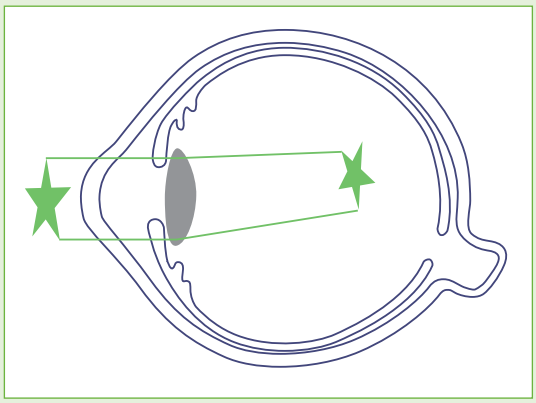
To understand how laser eye surgery works, it is useful to understand how focus is provided in the eye, the various refractive errors, how the eye provides focus and why glasses are needed.

The cornea (thin layer of transparent tissue at the front of the eye) provides two thirds of the focusing power of the eye. The lens just behind the iris is responsible for the remaining one third. Altering the shape of the cornea very slightly can produce a significant change in the power of the eye.



SHORT-SIGHTEDNESS (Myopia)

Patients who are short-sighted may have a steep cornea and/or a long eye. This means that the point of focus falls short of the retina and the person struggles to focus on objects at distance but can see well at near. The longer the eye, and/or steeper the cornea, the higher the level of short-sightedness.



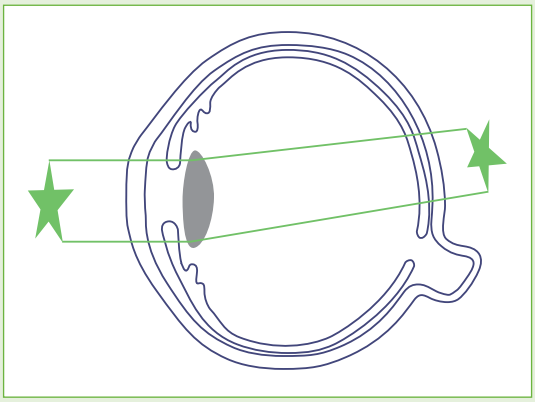
Short-sightedness can be corrected by lasers which flatten the cornea and making it less powerful. This moves the point of focus backwards to fall onto the retina. Higher prescriptions require a higher correction and removal of more tissue. Suitability is thus dependent on adequate corneal thickness to perform the correction safely.

LASIK has been effective for a wide range of short-sightedness from -0.75 to -10.00 and in some cases up to -12.00 diopters.

FAR-SIGHTEDNESS (Hyperopia)

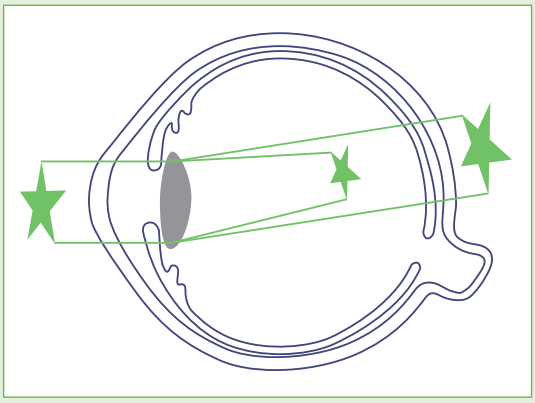
Long-sighted or far-sighted patients may have a flat cornea and/or a short eye. The point of focus falls beyond the retina and the person struggles to see objects close-up. The flatter the cornea, and/or shorter the eye the higher the level of far-sightedness.

The ability to make a flat cornea steep is more limited than flattening a steep cornea. LASIK is effective for treating up to +5.00 diopters. Treatment beyond this has been performed and whilst effective is not as predictable.



ASTIGMATISM

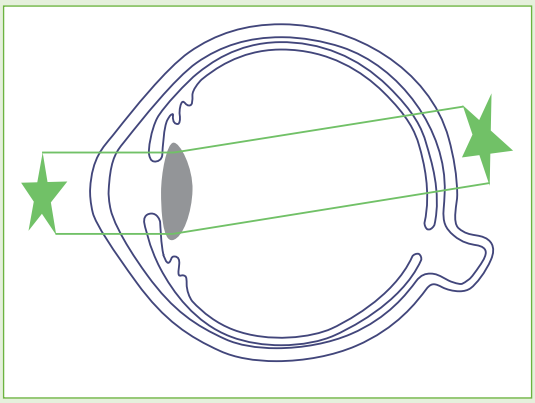
This is where the cornea is shaped like an rugby ball as opposed to a round football. The cornea is elliptical and has two powers. The difference between the two is the magnitude of astigmatism. Astigmatism up to 5.00 diopters can be treated safely and effectively through laser vision correction procedures.



PRESBYOPIA (need for reading glasses)

This is a condition that can develop over the age of forty. The lens in the eye becomes harder with age and loses the ability to change shape as easily. The fine focussing ability of the eye is thus impaired requiring help from reading glasses and bifocals are needed.

Presbyopia can be corrected in select candidates, using the technique “Supracor” introduced to the UK by Centre for Sight. Results have been excellent with patients obtaining good near, intermediate and distance vision. Alternatives for treating Presbyopia includes laser lens replacement with high performance lens implants (e.g. trifocal lenses).



What is laser eye surgery?

Laser eye surgery is a surgical procedure that corrects refractive errors including short-sightedness, far-sightedness, astigmatism and/or presbyopia (need for reading glasses). This is accomplished by changing the shape by micro-sculpting the cornea and in turn changing its power.

Highly precise lasers have led to truly life changing results. In experienced hands, using strict protocols with individualised care and attention to detail, results are even more exceptional.

Laser eye surgery procedures

While there are a number of laser eye surgery procedures, Centre for Sight surgeons will determine based on a series of investigations and eye examination which option is best for each patient and advise them accordingly.

LASIK

This using the femtosecond laser IntraLase is the most common procedure performed at Centre for Sight. The procedure involves using a femtosecond laser to create a micro-thin flap. The flap is lifted and an excimer laser is used to change the shape of the cornea under the flap. The flap is then replaced. This results in a rapid improvement in vision with most patients seeing well beyond the visual standards for driving within 20 minutes of completion.

It is also called IntraLASIK to differentiate how the flap is created. The IntraLase femtosecond laser introduced to the UK by Centre for Sight in 2004 is used to create the flap rather than a mechanical device with an oscillating blade (still in use in some centres in the UK).

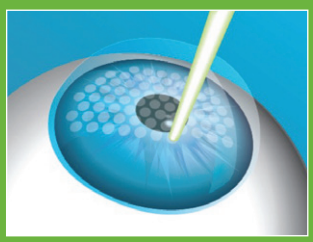
The laser that sculpts the eye has built in eye trackers which can follow micro-movements with microseconds.

TRANSEPITHELIAL PHOTOREFRACTIVE KERATECTOMY (Trans-Epi PRK)

This procedure is classified as a surface laser treatment. It is essentially a "no-touch" single laser procedure. The top layer of the cornea called the epithelium is lasered and once complete, corneal sculpting takes place.

In IntraLASIK, the IntraLase laser is used on the cornea to create a flap.

The flap then is opened like the page of a book to expose tissue just below the cornea's surface.



Next, the excimer laser is used to remove ultra-thin layers from the cornea to reshape it to reduce near-sightedness.

Finally, the flap is returned to its original position without stitches.

A bandage contact lens is placed on the eye to promote healing and reduce discomfort. The contact lens is removed 5 days after the procedure. Recovery is not as rapid as LASIK, however visual outcomes at 3 to 6 months are identical to LASIK.

The Trans-Epi PRK algorithm/methodology was developed for the Bausch and Lomb Technolas laser by Centre for Sight surgeons. The software is incorporated in the laser and very popular internationally.

Other "Surface" procedures include LASEK and PRK (Photorefractive keratectomy) not often performed at Centre for Sight.

Mitomycin C: Unlike other providers, Centre for Sight Associate surgeons do not use the anti-cancer Mitomycin C to prevent corneal haze following Surface laser procedures. The rationale for its use is to prevent haze. With new generation lasers haze hardly ever occurs, and surgeons will not use this chemotherapeutic agent in order to ensure surgery remains safe with no long-term consequences.

LENTICULAR EXTRACTION

This procedure is where a femtosecond laser in very selected cases is used to create a lenticule or pocket of tissue which is manually removed through an incision in the cornea. There are advantages and disadvantages in performing this procedure and at this moment in time, there is enough in the medical literature that demonstrates visual outcomes are better with LASIK than lenticular extraction. With newer generation lasers this might well change.

TREATMENT OF PRESBYOPIA

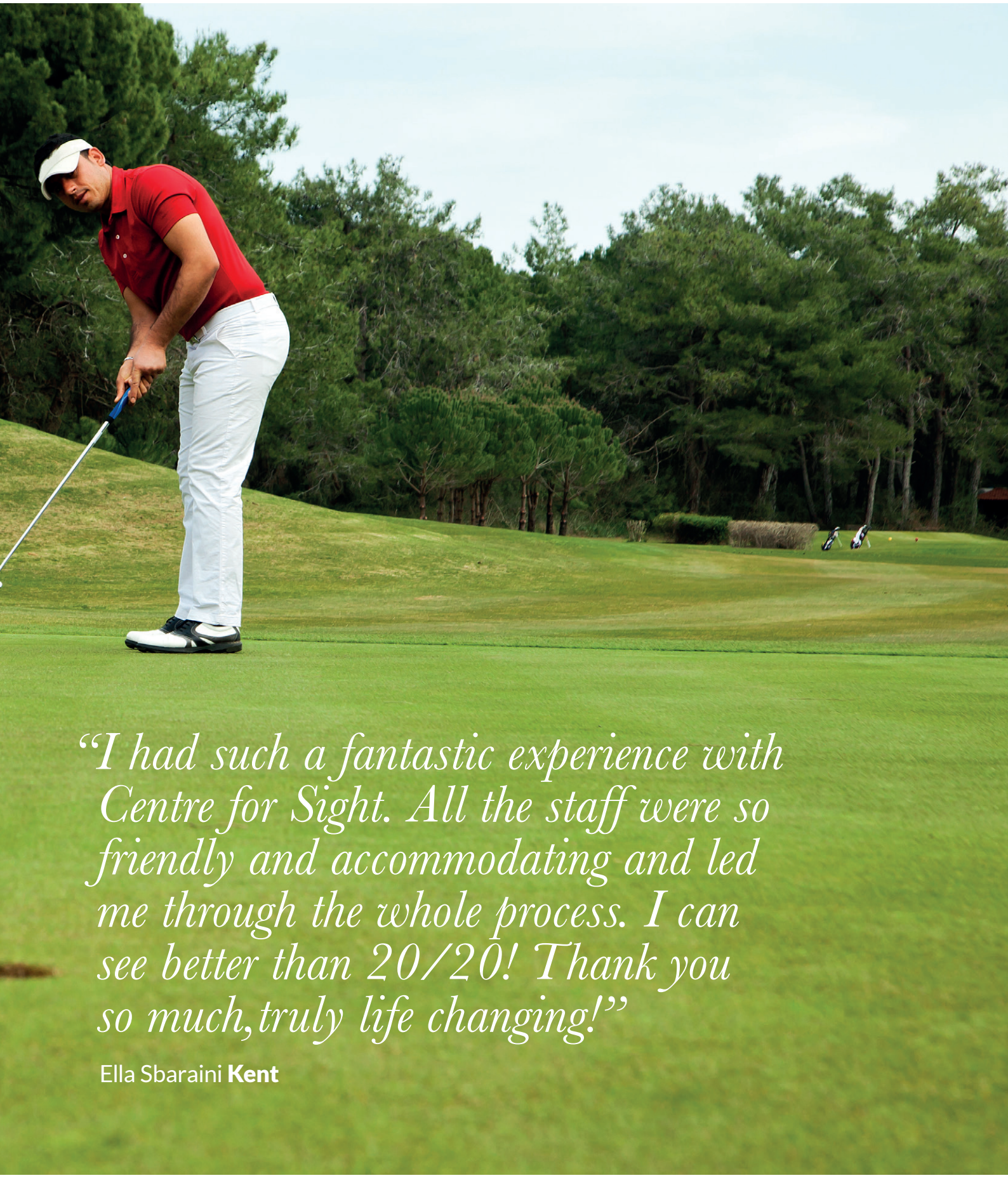
For those over the age of 40 or so, the ability to read is impaired from natural hardening of the crystalline lens within the eye. Laser correction to eliminate/reduce the need for reading glasses is possible with Supracor LASIK.

SUPRACOR LASIK

This is a sophisticated multifocal treatment suitable for those between 42 and 50 years of age. This LASIK algorithm reliably provides intermediate and near vision and some distance vision over time. The treatment is performed as a LASIK procedure in the non-dominant eye. To obtain good distance vision, the dominant eye is fully corrected. For those in the presbyopic age group (42+ years old), near vision may be impaired. With two eyes open however, vision blends together with the dominant eye seeing at distance, both eyes seeing at intermediate and the non-dominant eye seeing at near. There is a period of adaptation required for most patients which can vary from a few weeks to a few months. Careful selection is required and often a trial of contact lenses is advised prior to surgery. This will be discussed in more detail at consultation.

"Friendly, professional, and reassuring service throughout the entire process. Glad to have done it. Would recommend."

Jon Byrne **London**



"I had such a fantastic experience with Centre for Sight. All the staff were so friendly and accommodating and led me through the whole process. I can see better than 20/20! Thank you so much, truly life changing!"

Ella Sbaraini **Kent**

The laser eye surgery journey

Investigations and consultation

BEFORE YOUR INVESTIGATIONS AND CONSULTATION

If you wear contact lenses

To obtain the most accurate information and obtain the best results, contact lenses must not be used prior to investigations and testing.

SOFT contact lenses - out for 1 week

HARD contact lenses – out for 4 weeks

YOUR INFORMATION and THE CFS CLUB PORTAL

You will be registered on the CFS Club Portal where you will be asked to enter relevant information. This will save time and avoid duplicate filling of forms later. The portal is secure and GDPR compliant and your information is safe. Centre for Sight is ISO 27001 certified demonstrating commitment to keeping data safe.

INVESTIGATIONS

For efficiency and thoroughness, we provide an initial appointment for a series of investigations which will be performed by our highly skilled and experienced ophthalmic technicians and optometrists.

General information will be gathered about your eyes. Information will also be sought about your lifestyle; your history of glasses and contact lens wear, physical activities you participate in, your visual needs and how you expect your life to change after the procedure.

The process will take about 1 to 2 hours depending on how easy it is to acquire important data. You will also be shown informational videos and links will be sent for you to watch again at your leisure.

Your pupils will be dilated to paralyse your internal eye muscles to obtain an accurate reading of your refractive error. You will need to have someone drive you or take public transport.

INVESTIGATIONS PERFORMED FOR LASER EYE SURGERY

Your vision will be tested with and without your glasses. Your degree of near-sightedness or far-sightedness is measured using a machine called an **autorefractor**. Your eyes are then tested further manually to see what level of correction is needed. **Contrast sensitivity** testing with your best spectacle correction is also performed to assess your visual performance. Termed **corneal tomography**, the curvature and shape of your cornea in 3 dimensions, will be evaluated to ensure there is no corneal warpage from contact lenses or hidden corneal conditions.

A **dry eye test** (Schirmer's test) is also performed as well as a pressure check (tonometry). The corneal and epithelial thickness is evaluated using optical coherence and ultrasound methods (pachymetry). **Aberrometers** are used to determine any visually destructive aberrations worthy of customised treatment (e.g. Wavefront). At the same time and iris details are captured for the laser eye tracker which will enable accurate laser spot delivery even with fine eye movements during surgery.

Drops are administered to dilate your pupils. In the process of dilation, the eye muscles become paralysed to test the muscles involved with focus (**cycloplegic refraction**). A widefield retinal scan is performed.

Note you will not be able to drive for several hours after your pupils are dilated.

Additional tests may be required depending on findings at consultation. You will be provided with a copy of the consent form which you are encouraged to read, as this may generate questions which can be answered by the consultant.

CONSULTATION

Once all data is acquired, the information will be relayed to your consultant eye surgeon prior to your next appointment. As long as everything is straightforward, this consultation will be short (30 mins) where you will be assessed by your surgeon who will counsel you and answer any questions you might have.

Your surgeon will recommend the best treatment option(s) available to give you the best possible outcome and you will be counselled about the benefits, alternatives, and risks as well as what to expect in the immediate post-operative phase.

As you will not have any dilating drops, **you will be able to drive** to and from the appointment.

Your laser eye surgery procedure

Typically, both eyes are operated on the same day. For safety, Centre for Sight ensures that each eye is treated as a separate procedure with separately sterilised instruments and new disposable instruments for each eye.

Before your procedure, numerous checks are performed with verification that your treatment plan matches correctly with your test results. At each procedure the laser is calibrated, and new disposable instruments are prepared.

A strong numbing eye drop is used along with strong antibiotics to prevent infection. Being anxious is understandable, so to help make you more comfortable, a sedative tablet will be given to you before your procedure. The area around the eye is cleaned thoroughly with a disinfectant.

To prevent the eye from closing during the procedure a special eyelid clip is used. During the procedure, you will be asked to look as steadily as you can at the centre of a flashing red light.

The IntraLASIK procedure uses a combination of two lasers. The IntraLase femtosecond laser is initially used to create the corneal flap at the exact dimensions and depth needed. The excimer laser changes the shape of the cornea under the flap. The femtosecond laser creates thousands of microscopic bubbles to fashion the flap at a specified depth in the cornea for each eye. Once the surgeon is happy with the quality of the flap a second set of more condensed bubbles created vertically forms the edge of the flap.

Once complete, at a touch of a button, the laser bed moves to the excimer laser. Iris recognition technology recognises the eye from exported images taken at consultation and ensures accurate eye tracking and precise delivery. (Each iris is unique and therefore there is no chance of mixing up eyes or treatments). After carefully lifting the flap, the laser rapidly reshapes the inner cornea according to your own unique prescription providing optimal asphericity and reducing wavefront abnormalities where required. Once laser reshaping is complete, the flap is replaced and allowed to settle. Eye drops are used to prevent infection.

After your laser procedure

Following a short recovery period, your vision will be checked, and eyes examined. You may notice that your vision will be a little blurry or hazy immediately following your procedure.

This blurriness gradually clears over the next few hours. You might also notice a stinging sensation like having soap in your eyes for a couple of hours.

You will be given a small toiletry bag containing your medications and instructions on their use. You will then be able to go home, and we ask that you rest and keep your eyes closed for 4 hours to allow the flap to settle and heal. It is important to avoid wind or any type of air turbulence that would cause your eyes to dry out.

Someone will need to drive you home and it is best if you have a rest and keep your eyes closed for the next 4 hours after taking your first dose of your eye drops. You will have protective eye goggles which you will need to wear until the next morning. **You will need to use these protective goggles when you sleep for the next month**.

Follow up care

Commence your drops as instructed remembering to **close your eyes for 5 minutes before adding the next drop**. If you are not seen the day following your procedure, someone from Centre for Sight will contact you to ensure you are making good progress.

Follow up care is vital for good outcomes. We like our patients to be seen ideally within a few days of the procedure. For those who have had Transepi PRK, contact lenses will be in place and removed at around the 5th day when the consultation takes place. All follow up care is provided by your surgeon or an equivalent expert laser eye surgeon.

What to expect?

VISUAL RECOVERY

Visual recovery is typically very quick with many patients obtaining excellent vision the day following surgery and able to return to work within a day or two. Sometimes vision can fluctuate for one or two days.

Those who have a **far-sighted** treatment can expect slightly blurry vision at distance for much longer. This is because the eyes are used to "accommodating" (in other words compensating far-sightedness by contracting muscles that allow the lens to be more powerful). This habit of accommodation can linger after the procedure and will make the eyes 'short-sighted' with good near vision and slightly blurred distance vision. This phenomenon will eventually reduce over time with improvement in distance vision. The timeframe for recovery varies from a few weeks to a few months depending on patient age.

ACTIVITIES FOLLOWING SURGERY

It is important to avoid dusty and smoky atmospheres for the first two weeks following the procedure.

Can I take a shower?

You can shower the next day, but you must make sure your eyes are closed while showering. Try and avoid letting water enter your eye.

When can I drive?

When you are comfortable with your new vision, and if this meets the legal level of the driving standard set by the DVLA. You must be able to read a number plate at 20 metres. Your consultant will advise you if you meet the visual standards for driving.

When can I fly?

There are no restrictions to flying and you may within a day of surgery.

When can I go back to work?

The next day if you are comfortable. Make sure you can take your eye drops regularly as instructed.

When can I use a computer?

The next day but be sure to follow the 20:20:20 rule: Take breaks every 20 minutes closing your eyes for 20 seconds and then looking out of the window for 20 seconds. Make a conscious effort to blink more often.

When may I return to activities such as housework and shopping?

There are no restrictions, and you may return to these activities the following day. You must keep away from smoky and dusty environments and do not forget to wash your hands before using your eye drops.

When can I exercise again?

Moderate pace after 1 week. Intensely, please wait for 2 weeks.

When can I return to playing sports?

You may return to all sporting activity except swimming after 2 weeks. For contact sports, you are advised to use protective eyeglasses. Polycarbonate sports glasses are recommended.

When I can I go swimming?

After 3 weeks with goggles, 4 weeks without goggles.

When can I wear eye make up again?

No Mascara for 4 weeks - Consider having your eyelashes tinted before surgery. All other make-up, please wait for 2 days. When removing eye make-up, use your usual make-up remover gently and finish off by using a preservative-free eyelid cleansing lotion.

SIDE EFFECTS

Laser eye surgery with appropriate patient selection and treatment provides excellent outcomes. With current technology, serious problems are extremely rare. There are however some side effects that you must be aware of.

DRY EYE

Laser eye surgery affects the nerve receptors that sense dry eye and as a result tear production can be temporarily reduced. To compensate for this, artificial tears (provided) are required for at least 6 to 12 weeks whether or not there are dry eye symptoms. As nerve endings and receptors recover, dry eye improves. Patients at risk of severe dry eye are identified at consultation and either treated for dry eye beforehand or declined for laser surgery.

OVER-CORRECTION, UNDER-CORRECTION, AND REGRESSION

It is possible but very unusual for the eye to be over corrected, under corrected or slip back (regression) slightly over the first 6 weeks. Much depends on how the eye responds to surgery, how it heals and whether or not artificial tears are used. Dry eye (symptomatic or not) can result in regression. If this is significant and affects the visual outcome, an enhancement will be performed to correct this at 3 months if the eyes are stable. To reassure you, this doesn't occur very often at Centre for Sight with less than 1% of our patients requiring an enhancement. There is no further charge for additional correction within the first year of treatment.

Frequently asked questions

How long does it take to perform LASIK/IntraLASIK surgery?

The procedure usually takes less than 15 minutes for both eyes. Although the procedure is quick, plan on being at the centre for about 3 to 4 hours as time is required to prepare you, perform the treatment, and allow you to recover and be discharged.

Does the procedure hurt?

No, the treatment itself is completely painless. Large amounts of anaesthetic drops are used which completely numbs the eye. You might feel a bit of pressure at the very beginning when the IntraLase laser is used to create the flap. After the procedure some patients describe a gritty sensation like a lash in their eye. Some feel stinging which lasts for a few hours. For this reason, we ask patients to have a rest for about 4 hours after the procedure. Paracetamol or Ibuprofen is the most you will need to manage the discomfort.

What if I blink or move during the procedure?

A delicate clip holds the eyelids open during the procedure and blinking is not possible. Your head fits snugly into a head rest and cannot move, and all you will need to do is look at a blinking red light. The laser is controlled by the surgeon and has an iris recognition tracker that follows any fine and rapid movements of the eye ensuring laser shots are accurately delivered. If the eye moves beyond range the laser does not fire.

How soon after the surgery will I be able to see?

Vision recovers very quickly after the procedure. At 10-15 minutes after the procedure your vision and your cornea will be checked to make sure all is well. Your vison may appear misty or foggy immediately afterwards, but this should clear after a night's sleep. Visual recovery in very few patients can take slightly longer than 1 day and sometimes takes up to 10 days. Although everyone is a little different, most of our LASIK patients achieve legal driving vision or better the very next day. Note that your vision may fluctuate a little in the first couple of weeks. This is a normal phenomenon, and you will find that this will stabilise and improve day by day.

Can I wear my contacts before my surgery?

Contact lenses, even soft ones, can alter the corneal shape. Our rule of thumb is for soft lens wearers, you need not wear them for 1 week before your evaluation. For hard lenses, 4 weeks is best. After the consultation and before your surgery, it is best if you can avoid wearing lenses. If you do have to wear lenses, we suggest you discontinue soft contact lenses for at least 2 days before your procedure. For hard lenses, you may be asked to leave them out until the day of your procedure.

How successful is the IntraLASIK procedure?

Our goal is to reduce your dependency on glasses and contact lenses. Traditional LASIK has a proven track record and is now the most favoured procedure for correcting a wide range of correction. IntraLASIK, in our experience, provides much better visual outcomes. While our results are extremely good, we realistically make a commitment to get you to a level of 6/12 to 6/10 or better which is the standard required for driving. This level of vision successfully reduces your dependency on optical aids and enables you to watch television and play sports. More than 98% of our patients obtain even better vision at 6/6 (20/20). Your consultant will discuss what can be achieved at the time of your consultation.

Frequently asked questions

What about the long-term, will my vision change?

Any change that takes place following treatment usually occurs in the first 6-12 weeks. From our experience, having specialist knowledge of corneal diseases and having performed LASIK since 1996, we know that patients will not experience any long-term detrimental effect. These are patients who are appropriately selected, investigated and treated by an experienced and well-trained corneal surgeon and within the correct guidelines. In some, changes in the crystalline lens related to age can alter refractive error and in turn vision. This natural change is not in any way influenced by laser eye surgery.

What happens when I get older, will my vision change?

IntraLASIK corrects the eye and normalises refraction. Aged mid-40s, the fine focusing mechanism of the lens within our eye does not function as well, as the lens becomes inelastic. As a result, reading glasses or bifocal segments are needed. Therefore, it is quite probable you will need glasses for reading fine print if you are over the age of 42 (or when you reach this age), even if you were able to read without glasses before surgery. Supracor IntraLASIK may be recommended if you are in this age group. If you have had LASIK previously, Supracor LASIK as an enhancement is a possible option.

Aged in the 60s or 70s, cataract formation may alter your vision and change the power of your eye. This can be corrected with the possibility of obtaining good vision at distance, intermediate and near with modern high performance trifocal lenses.

Do you have any payment plans?

Centre for Sight offer an interest free payment plan. Credit acceptance is subject to terms and conditions. Call for more information on **01342 306020**.

Is laser eye surgery covered by health insurance?

Most health insurance companies do not cover laser eye surgery where the purpose for treatment is elective vision correction.

What does the Centre for Sight laser vision correction programme cover?

Centre for Sight charges a single fee irrespective of the prescription and treatment choice (except Supracor) providing reassurance that the best possible option customised for each eye will be selected. The fee includes the following:

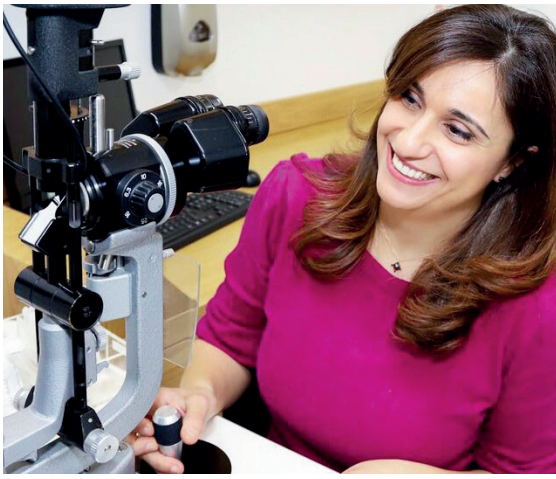
- The laser procedure
- Initial prescription medications
- All post-operative care for a period of 12 months, including eye examinations, related tests, and enhancements.

What are alternatives to laser eye surgery and what if I am not suitable?

Depending on the health and status of your eyes, alternatives may be suggested by the consultant during consultation. Options include implantable contact lenses (ICL) or laser lens replacement /exchange (LLR).

Implantable contact lenses, the EVO Visian ICL are micro-thin lenses placed inside the eye to correct short-sightedness (myopia), far-sightedness (hyperopia) and astigmatism. The procedure is "additive" and therefore can be reversed. It is an alternative to laser eye surgery and can be used to treat a high range of correction needs – beyond what is possible with laser eye surgery. For those with thin or abnormal corneas, keratoconus, and dry eye, this is an excellent alternative. The EVO Visian implantable contact (collamer) lenses (ICL) have been in regular use at Centre for Sight since 2002, with over 1,000,000 procedures performed worldwide.

Laser lens replacement (LLR) / exchange is where the natural lens is replaced with a multifocal (trifocal) lens implant to give good distance, intermediate and close-up vision.



As a world-class surgical eye centre, a whole variety of treatments are performed at Centre for Sight for both vision correction and other eye conditions. Your consultant evaluates you on an individual basis and determines which option is best for you.

Importance of choosing the right clinic and surgeon

It is crucial that you take the time to find the right surgeon and clinic to perform laser eye surgery. It is important not to get distracted by offers and "deals". It is not about getting a good deal but getting the best care that sets you up for the rest of your life.

There are many factors that you need to consider when choosing an eye surgeon or eye clinic, including:

- The expertise and experience of the surgeon
- The facilities at the clinic. Clinic track record - how long they have performed procedures along with outcomes

The following gives you some guidance on the best ways to choose your laser eye surgeon:

WORD OF MOUTH

This is one of the best and most effective ways. Laser eye surgery is very popular, and chances are you will know someone who has had the treatment. Ask your colleagues, friends, and family about their experience.

Ask your optometrist if there is a particular laser eye clinic or laser eye surgeon that they would recommend. Testimonials are good especially if they are on independent websites. You can also get feedback on laser eye clinics through online forums, social media, or recommendation sites such as Trust Pilot.

THE EXPERIENCE AND EXPERTISE OF YOUR SURGEON

It's important to choose a laser eye surgeon who is highly experienced and skilled. There are many private eye surgeons practising in the UK, all with differing levels of experience and expertise. However, there are certain minimum standards you should expect. Your surgeon should be:

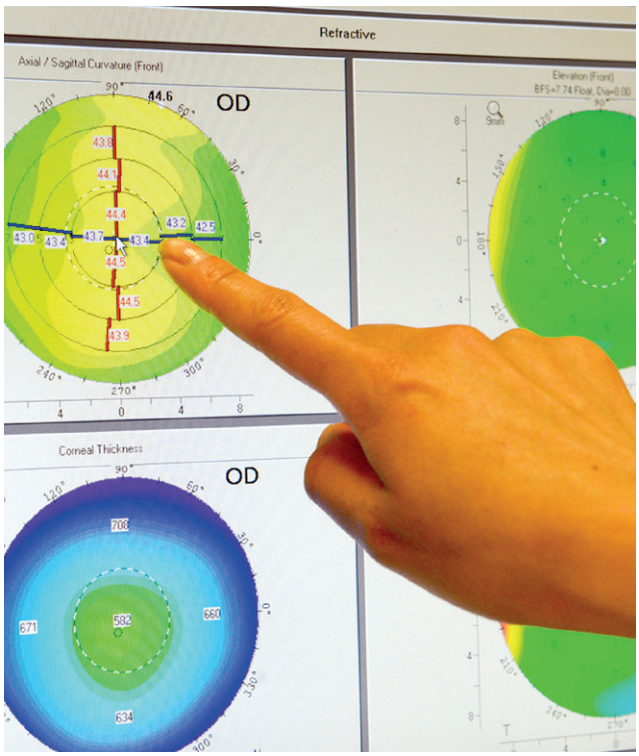
- Fully qualified as a medical doctor and be registered with the General Medical Council
- Have undergone the requisite ophthalmic specialist training required by the Royal College of Ophthalmologists
- Be a member of the Royal College of Ophthalmologists
- Preferably have fellowship (specialised) training in cornea and refractive surgery

You should look for a surgeon with certification in laser refractive surgery from the Royal College of Ophthalmologists (LCert RCOphth) and that can demonstrate a successful track record with the procedure, and through anecdotal evidence from patient testimonials.

THE FACILITIES

It's important to choose a clinic where you feel comfortable and relaxed. While surgical expertise is vital, your own peace of mind is just as important.

Make sure the clinic is world-class and meets international standards including ISO 9001, 14000. Making the effort to meet standards means they care.



Eye surgery is a rapidly developing field, so check that your chosen clinic has the latest equipment and practices the most up to date techniques.

Look at the clinic's history, where they are based and how long they have been performing laser eye surgery. Smaller independent clinics tend to be run by the surgeons who carry out the treatments, and they are usually at the top of their profession, making the standard of treatment consistently higher.

Ensure the clinic you choose offers a laser eye surgery pathway that includes aftercare.

Glossary of terms

LASER EYE SURGERY

Type of vision correction or refractive surgery, which eliminates the need for corrective eyewear. It is a procedure that uses lasers to make microscopic alterations in the corneal tissue on the surface of the eye to completely correct refractive error (near-sightedness, far-sightedness, astigmatism) and presbyopia (the need for reading glasses).

REFRACTIVE SURGERY

Eye surgery used to improve the refractive state of the eye and decrease or eliminate dependency on glasses or contact lenses. This can include various methods of surgical remodelling of the cornea, lens implantation or lens replacement.

LASIK

LASIK stands for Laser-assisted in situ keratomileusis and is commonly referred to as laser eye surgery or laser vision correction. It is used for the correction of myopia, hyperopia and astigmatism reducing the need for glasses and contact lenses.

INTRALASIK

IntraLASIK includes creating a LASIK flap with the highly precise IntraLase femtosecond laser rather than an oscillating mechanical blade. The use of a laser for this portion of the procedure improves safety and precision of the procedure.

PHOTOREFRACTIVE KERATECTOMY (PRK)

A form of surface laser eye surgery procedure which avoids use of a flap. It is very precise and extremely good for low levels of correction: near-sightedness, far-sightedness, and astigmatism.

TRANSEPITHELIAL PRK

This is a single step "no-touch" process where the laser both removes the epithelial layer and changes the corneal shape. This results in more rapid healing and less discomfort. The epithelial layer in PRK is removed mechanically after alcohol is applied to aid dislodging the layer.

LASEK

LASEK (laser-assisted sub-epithelial keratectomy) is a derivative of photorefractive keratectomy (PRK) whereby the epithelium is loosened with 18% alcohol. In LASEK the epithelium flap (rather than a corneal flap in LASIK) is dislodged and put to one side (instead of being discarded) and then replaced after the excimer laser treatment.

EPI-LASIK

Epi-LASIK (epithelial laser in-situ keratomileusis) is like LASEK in that it preserves the epithelium. A mechanical device is used to create an epithelial flap. While both procedures are similar in concept, they vary in how the epithelial flaps are produced.

REFRACTIVE LENS EXCHANGE (RLE)

Identical to modern cataract surgery. Both operations involve replacing the natural lens with a high-performance intraocular lens. The only difference is that cataract surgery is performed mainly to correct blur or light scatter caused by a misty natural lens; whereas RLE is performed to reduce the need for glasses or contact lenses.

LASER LENS REPLACEMENT (LLR)

This is the same as RLE above, however a laser is used to perform several of the steps typically performed by hand. Laser lens replacement (LLR) is also known by other terms such as lens replacement surgery (LRS), custom lens replacement, clear lens exchange, natural lens replacement (NLR), refractive lens exchange (RLE) and presbyopia lens exchange (PRELEX).

IMPLANTABLE CONTACT LENS (ICL)

A vision correction option where a micro-thin lens is placed inside the eye to correct short-sightedness (myopia), far-sightedness (hyperopia) and astigmatism. For those with thin or abnormal corneas, keratoconus, and dry eye, this is an excellent alternative to laser eye surgery.

MYOPIA / SHORT-SIGHTEDNESS

Short–sightedness, or myopia, is a relatively common eye condition that causes distance vision to appear out of focus, while close objects can be seen clearly. Most people need to use glasses or contact lenses to help focus.

HYPEROPIA / FAR-SIGHTEDNESS

Far-sightedness, or hyperopia is a common eye condition in which a person can see distant objects clearly, but objects close by may appear blurred. The condition worsens as the eye ages and the lens becomes harder. Strong glasses or contact lenses are required to help bring the focal point upstream to focus on the retina.

Glossary of terms

ASTIGMATISM

Astigmatism is often found in combination with short-sightedness and far-sightedness and contributes to blurry vision. This occurs because the cornea is shaped like a rugby ball rather than a football. Depending on how light rays enter the cornea, they may be focussed to different points and do not meet in a single focal point, resulting in blurred images.

PRESBYOPIA

Presbyopia is when the eyes gradually lose the ability to see things clearly up close. It is a normal process of ageing. Presbyopia usually becomes noticeable in the early to mid-40s and continues to worsen until age 65. The term "presbyopia" comes from a Greek word which means "old eye." Use of reading glasses and probably holding reading materials farther away to see them clearly are indications of this eye condition.

SUPRACOR LASIK

A laser eye surgery option for correction of presbyopia (the need for reading glasses). The non-dominant eye is treated and provides good near and intermediate vision with slightly blurry vision at distance which improves with time.

DRY EYE

Dry eye or dry eye syndrome is a very common condition that increases with age and occurs when people don't have either enough tears, or the correct composition of tears, on the surface of their eyes to lubricate the eyes and keep them comfortable. Transient dry eye can occur following laser eye surgery.

ACCOMMODATION

Ability of the crystalline lens to change shape to enable better near vision. Accommodation allows the eye to automatically adjust focus from seeing things at a distance and "tune" it to seeing nearer objects.

HALOS

Halos are bright circles that surround a light source like headlights. This is often a normal response to bright lights, but it can also be a symptom of an underlying eye condition which may be affecting vision.

GLARE

Difficulty seeing in the presence of a bright light such as direct or reflected sunlight or artificial light such as car headlamps at night. Factors such as the angle of the glare source and eye adaptation affects experience of glare.

STARBURSTS

Series of rays or fine filaments radiating from bright lights, Starbursts around light are more noticeable at night as the pupil dilates and when there are more points sources of light like streetlights and car headlights.

WAVEFRONT

This is the optical output from an eye measured by an aberrometer. The wavefront can be broken down mathematically into many components and where the components are significant (e.g., spherical aberration and coma) a treatment to address the wavefront abnormality can be considered.

ASPHERIC

This is an advanced treatment profile that reduces/eliminates night vision issues. The corneal shape is designed to provide improved optics often resulting in better vision than with glasses. In use at Centre for Sight since 2008 with excellent results.

WAVEFRONT ASPHERIC

At your consultation you will have your optical systems evaluated for aberrations. If it is found that you have significant aberrations that are likely to be affecting visual performance, then this option will be used.

COMA

Type of aberration or small optical irregularities caused when light rays from one edge of the pupil focuses before those from the opposing edge. Visually those with this type of aberration may experience smearing of an image so that images may appear to have a tail like a comet.

SPHERICAL ABERRATION

An optical irregularity that results in the visual symptoms of glare, starburst, and halos surrounding point light sources and a reduction in contrast sensitivity.

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