See the world through your own eyes.

AN INTRODUCTION TO LASER EYE SURGERY

Lions Laser Vision Centre
Lions Laser Vision Centre is the first and largest clinic in Western Australia.

www.lionslaservision.com.au
Your safety is our number one priority.

With almost 20 years experience and the most advanced technology available, more people than ever before are suitable for safe and effective laser vision correction. At the Lions Eye Institute, your safety is our number 1 priority. Join thousands of other happy Western Australian’s seeing the world through their own eyes.

A CLEARER VISION FOR THE FUTURE

At Lions Eye Institute Laser Vision Centre, we are here to offer you the highest level of expertise and experience, teamed with the latest technology for laser vision correction.

The Lions Eye Institute Laser Vision Centre is the premier refractive surgery centre in Western Australia. We developed and used the first refractive laser in Australia, we were the first to perform a LASIK procedure in Western Australia and we were the first refractive surgery centre to become accredited by the Australian Council on Healthcare Standards and the first to be certified to International Standard ISO 9001:2000.

Our specialist doctors are the most experienced in Western Australia, providing training to other surgeons on how to perform LASIK. Medical professionals such as surgeons, general practitioners and nurses choose the Lions Laser Vision centre when they want their own vision corrected.

“The Lions Laser Vision Centre was the first centre to perform a LASIK procedure in Western Australia.”
Professor Geoffrey Crawford MBBS, FRANZCO, FRACS

Professor Crawford completed his ophthalmic training in Western Australia and is a Fellow of the Royal Australian and New Zealand College of Ophthalmologists and a Fellow of the Royal Australasian College of Surgeons. He completed further sub-specialty training in Ophthalmic Plastics and Reconstructive Surgery at Moorfields Eye Hospital in London and Cornea and Refractive Surgery at Emory University in Atlanta, Georgia, USA.

Professor Crawford is a Consultant Ophthalmologist at the Lions Eye Institute, Perth, where he is also the Director of Surgical Services and the Director of the Lions Laser Vision Centre. He is a Consultant Ophthalmologist at Royal Perth Hospital and Princess Margaret Hospital for Children and is a Professor of Ophthalmology at the Centre for Ophthalmology and Visual Science, University of Western Australia.

Professor Crawford’s main areas of interest relate to all forms of refractive surgery of which he has more than 30 years experience; this includes laser eye surgery (LASIK, PRK, LASEK) and refractive lens surgery. He was the first to perform LASIK surgery in Western Australia. He also specialises in corneal and cataract surgery.

Professor Crawford is a co-inventor of the AlphaCor artificial cornea and the AlphaSphere orbital implant and developed the techniques for insertion of these devices. He has held many positions within RANZCO including Director of Continuing Professional Development, Chairman of the Programme Committee and Chairman Examiners. He was the foundation Medical Director of the Eye Bank of WA. He serves on the executive committees of the Australian and New Zealand Cornea Society, Asia Cornea Society and Australasian Society of Cataract and Refractive Surgeons.

Professor Graham Barrett MBBS, FRANZCO, FRACS

Graham David Barrett is a Consultant Ophthalmologist at the Lions Eye Institute as well as Sir Charles Gairdner Hospital in Perth Western Australia and is a Clinical Professor in the University Department of Ophthalmology of Western Australia. His special areas of interest include cataract and implant surgery, as well as corneal and keratorefractive surgery.

Professor Barrett has been especially active in the field of small incision cataract surgery and phacoemulsification and has published many papers and is the author of several chapters in text books on related topics. He has produced several videos on cataract and refractive surgery, which have won awards at the ASCRS and ESCRS Annual Film Festivals. He is the recipient of the Harold Ridley Medal as well as the Binkhorst Medal.

His special areas of interests include new techniques in cataract surgery and intraocular lens implant surgery, intraocular lens implant design as well as refractive surgical techniques, including epikeratoplasty, synthetic refractive on-lays and in-lays and keratoscopic devices. He has developed innovative instruments for all cataract surgery as well as phacoemulsification equipment and intraocular implants, which are widely used by surgeons.

Professor Barrett has been on the Editorial Board of the Journal of Cataract and Refractive Surgery, European Journal of Implant and Refractive Surgery and past international representative for the Asia Pacific Region of the International Society of Refractive Keratoplasty. He is currently a board member of the International Society of Refractive Surgeons, the President of the Asia Pacific Association of Cataract and Refractive Surgeons, Editor of the EyeWorld Asia Pacific publication and is also the current and founding President of the Australasian Society of Cataract and Refractive Surgeons.

All our surgeons have trained in corneal and refractive surgery at recognised international centres in the US, UK and Singapore, and have long-term commitments to both clinical practice and research. The Lions Eye Institute is the premier ophthalmology centre in Western Australia and we are the eye doctors for other doctors.
Associate Professor Steven Wiffen MBBS (Hons), FRANZCO, FRACS

Associate Professor Wiffen trained in ophthalmology in Western Australia before undertaking 2-year fellowships in cornea and refractive surgery at both the Corneo-Plastic Unit, East Grinstead, UK, and the Mayo Clinic, Rochester, Minnesota, USA. He was Director of the Corneo-Plastic Unit and Eye Bank in East Grinstead 1993-1994. He is a Consultant Ophthalmologist at Fremantle Hospital and Associate Professor in the Centre for Ophthalmology and Visual Science, University of Western Australia, as well as Director of the Lions Eye Bank of Western Australia. He has held numerous other positions, including Head of Department of Ophthalmology Fremantle Hospital, Chair of the Qualifications and Education Committee of the WA Branch of RANZCO, Chair of Eye Banks Australia and New Zealand and Chair of the Cornea Standing Committee of the Transplantation Society of Australia and New Zealand. He has special expertise in corneal transplantation, pterygium and cataract surgery as well as refractive surgery.

Doctor Andrea Ang MBBS (Hons), MPH, FRANZCO

Dr Ang trained in Ophthalmology in Perth (MBBS (Hons), UWA) and the USA (MPH, Harvard) before undertaking fellowships in Cornea, Anterior Segment, and External Diseases at the Cincinnati Eye Institute, USA, and at the Singapore National Eye Centre, Singapore.

Dr Ang is also a consultant ophthalmologist at Royal Perth Hospital. She specializes in the management of cornea, anterior segment, and external diseases, including pterygium surgery, all forms of corneal transplantation, limbal stem cell surgery, and keratoprosthesis. Dr Ang also performs cataract surgery and refractive surgery including LASIK and PRK.

“We are the eye doctors for other doctors.”
ABOUT

Everybody has a different reason for seeking refractive surgery but for everyone it is a choice for a new lifestyle - a lifestyle free of glasses or contact lenses. Whether it be for practical, professional, leisure or sporting reasons, laser eye surgery can open up a whole new world for you. You can realise your full potential with a clearer vision for the future.

WHAT IS LASIK?

LASIK is the most common refractive procedure performed to correct refractive errors and reduce dependence on glasses and contact lenses.

LASIK stands for "laser in-situ keratomileusis" and is a technique which uses the IntraLase laser to create a partial thickness flap of the cornea and then an excimer laser to reshape the surface beneath the flap.

LASIK can be used to correct myopia, hyperopia and astigmatism.

“TAKE THE NEXT STEP IN YOUR LIFE WITH CLEAR VISION”

Making a decision to have LASIK

Suitability for LASIK depends on the amount and type of refractive error, the curvature and thickness of your cornea, and a number of other factors.

People who are most satisfied with the results of laser correction have realistic expectations of the outcome and clearly understand the minimal potential risks and side effects.

Requirements for laser eye surgery

- Minimum age: 20 years
- Stable vision (spectacle prescription) for at least 1 year
- Absence of other eye diseases, especially those affecting the cornea
- Not pregnant or breastfeeding
The aim of LASIK is to improve quality of life by improving your vision without the need for visual aids. In this regard the results of LASIK are excellent.

**What are the expected outcomes of LASIK?**

**More than 98% of people no longer require glasses or contact lenses following surgery.**

**How does LASIK work?**

LASIK works by using the computer-controlled excimer laser to remove (ablate) tissue from underneath a flap in the cornea in an extremely precise fashion. The change in curvature of the cornea changes the focus of the eye and removes the need to wear glasses or contact lenses.

A thin partial-thickness flap is created on the top of the cornea using a sophisticated laser called the IntraLase. This leaves the flap hinged so it can be easily replaced.

With the flap turned back, the excimer laser is used to remove corneal tissue to produce the required change in shape. The flap is then replaced and adheres to the underlying cornea within minutes without requiring any stitches.

“**The aim of LASIK is to improve quality of life by improving unaided vision.**"
WHAT ARE REFRACTIVE ERRORS?

There are several sorts of refractive error, including myopia, hyperopia and astigmatism. All are measured in dioptres. The higher the degree of refractive error, the thicker the corrective spectacle lens required.

**Myopia: Short-sightedness**

This means you see better over short distances as opposed to long distances, but sometimes both can be blurred.

If the cornea and lens are too strong, or if the eye is too long, light will come into focus in front of the retina. This causes objects in the distance to be blurred but those closer are in focus.

Nearly 25% of people in Australia are myopic. This usually develops while the eye is still growing during childhood or adolescence and stabilises when full growth is reached. No-one knows exactly what causes myopia but it is likely that both inherited and environmental factors play a role.

**Hyperopia: Long-sightedness**

This means you see better over long distances as opposed to short distances, but both can be blurred.

If the cornea and lens are not strong enough, or the eye is too short, light comes into focus behind the retina. This causes objects in the far distance to be blurred and even more so for those up close.

Younger people usually have enough power to see in the distance and up close, but as we get older glasses become necessary to see near objects and then later to see in the distance as well.

**Astigmatism**

Astigmatism - Both distance and near vision may be blurred.

Astigmatism refers to the condition where the cornea has different curvatures. It does not have equally rounded curves like a soccer ball but is more like an AFL football. This makes focusing uneven or distorted and objects are not seen clearly without glasses in the distance or up close.

Astigmatism is very common as most people with myopia or hyperopia have some astigmatism as well.

**Presbyopia (age related)**

Presbyopia is often confused with hyperopia (long-sightedness). It is part of the normal process of ageing, and involves losing the ability to bring objects up close into focus. This usually begins between 40 and 50 years of age.

LASIK cannot effectively correct presbyopia. However people with presbyopia will benefit from having their distance vision corrected and will only need glasses for close-up activities. Some people are suitable for monovision correction where one eye is corrected for distance and the other for reading vision.

**Other refractive problems**

Other conditions such as keratoconus or corneal scars can affect the focusing of the eye but may not be able to be treated by LASIK, although other treatment options may be available.
World’s most advanced excimer laser system

The Lions Laser Vision Centre has brought the first ever Schwind Amaris excimer laser to Western Australia. We believe this is the best laser in the world today for LASIK.

There are so many features of the Schwind Amaris excimer laser that are important, but the main benefit to you is the best possible result in the shortest possible time.

Intralase Advanced iFS Laser

Lions Laser Vision Centre has also invested in the latest 5th-generation Intralase femtosecond (iFS) Laser. The iFS™ Laser gives you the latest technology to provide the fastest possible treatment time with the safest and most predictable result. With over 5 million procedures performed to date around the world, Intralase® Technology is trusted on astronauts and fighter pilots.

The ‘IntraLase Method’ provides an all-laser approach to LASIK, giving your surgeon the highest degree of control during every part of your surgery, to produce the safest and most outstanding visual results.

The results

There have been more than 30 million LASIK procedures performed worldwide clinical trials have shown the vast majority of patients achieved or reported the following:

- Extreme improvement in vision quality
- Vision after LASIK being as good or better than what it was like with glasses or contact lenses.
- No increase in unwanted glare, halos or night driving difficulty
- High satisfaction with their results
- They would choose the procedure again

Safe, Fast, Clear – The Lions Laser Vision Centre helps you to see the world through your own eyes.

How quickly will your eyes recover?

The most dramatic improvement will be noticed the morning following surgery. We recommend you take at least one extra day off work after the procedure to give your eyes a break.
ADVANTAGES OF LASIK

• Excellent vision without glasses or contact lenses
• No scarring
• Rapid visual recovery
• Little discomfort
• Both eyes can be treated at the same time
• Adjustable - simple enhancement

WHAT ASSESSMENT IS REQUIRED FOR REFRACTIVE SURGERY?

Determining your suitability for the LASIK procedure involves a series of measurements, a detailed examination of your eyes and a discussion about the LASIK procedure.

You will need to leave your contact lenses out before the evaluation as they can affect the measurements made. All soft/disposable lenses must be left out for 1 week. All hard or rigid gas permeable (RGP) lenses for at least 1 month.

Even if you normally wear contact lenses bring along your glasses and any old glasses prescriptions you may have as that helps to determine if there has been any recent change to your vision.

Your refraction (spectacle prescription) will be checked and your corneal shape and thickness will be assessed.

We measure your spectacle prescription using both infra-red and laser light with very accurate objective instruments. Your pupils may be dilated for examination of your retina.

Your surgeon will assess all of these examination results and discuss the LASIK procedure with you in detail. You will have the opportunity to ask any questions that you may have about the procedure.

If you are not suitable for LASIK then there may be other procedures that are appropriate and your surgeon will discuss these with you.

"EVERYBODY HAS A DIFFERENT REASON FOR SEEKING REFRACTIVE SURGERY BUT FOR EVERYONE, IT IS A CHOICE FOR A NEW LIFESTYLE."
FREQUENTLY ASKED QUESTIONS

Are there limits to how much refractive error can be corrected?

Yes, there are. The limits for myopia, hyperopia and astigmatism depend on many factors, especially the thickness of your cornea. This can only be determined at your consultation or pre-assessment.

How do I know if I am suitable for LASIK?

To determine your suitability for LASIK you will need to come in for an assessment visit with our optometrist which may be followed by a consultation with the surgeon.

At the assessment visit we will check to see if you are technically suitable for LASIK after assessing your spectacle prescription, corneal shape, corneal thickness and other factors. At the initial consultation with the surgeon the health of your eyes will be assessed, the technical information reviewed and the results you can expect discussed in detail.

Why can’t I wear my contact lenses before my appointment and surgery?

Contact lenses may alter the natural curvature of the cornea. To have accurate results we need to know what the natural curvature of the cornea is, thus it is essential that lenses are left out prior to your pre-assessment, consultation, and surgery. For soft disposable contact lens wearers please leave them out for at least one week prior to your consultation and surgery. If you wear RGP/Rigid/Ortho-K lenses please leave them out for at least four weeks prior to your consultation and surgery.

How long does the procedure take?

The procedure takes between 15-20 minutes per eye, however you will be at the Lions Laser Vision Centre for 2-3 hours on the day of your procedure.

What if I move my eyes during LASIK?

The laser incorporates an active infra red multi-dimensional eye tracking system. This highly sophisticated safety device tracks tiny eye movements and guides the laser to follow them. This makes sure that the laser treats the correct areas of your eye. The eye tracker incorporates advanced multi-dimensional video tracking and reads the exact position of your eye many times per second and forces the laser to stop treatment if your eye moves outside of tracking range.

How much time do I need off work?

Most people require two days off work: the day of surgery and the day after. Some people may require longer, depending on their occupation. You can return to work as soon as you feel comfortable with your vision. It may take some time (a few weeks) to feel completely comfortable with prolonged reading or computer use. Excessive computer work or near work, especially in air-conditioning, may make your eyes more sensitive. You may find that you tire more quickly, or cannot concentrate for as long as usual, while you are getting used to the changes in your vision. It is more likely that it will take longer to adjust for those in the presbyopic age group (older than 40 years).

When can I drive after LASIK?

We recommend that you do not drive to your follow-up appointment the next day. Your vision will be checked and the doctor will advise you when you can drive. Usually you can drive as soon as you are comfortable with your vision outside in bright light and can judge speed and distances accurately. This may take a day or two after surgery.

What if I am pregnant or breastfeeding?

We do not perform LASIK while you are pregnant or breastfeeding as your measurements may fluctuate during this period. We recommend that you wait 3 months after giving birth or have stopped breastfeeding before you book in for an assessment.

Is LASIK permanent?

Yes, the surgery permanently alters the shape and focus of your cornea. However, a few people may become more short or long-sighted naturally with age and this may change the refractive error.

Is there a cost for the initial consultation with the surgeon?

Yes, you will be charged a fee for your initial consultation with the surgeon.

If I require further surgery do I have to pay?

Any enhancements performed within the first year incur no extra charge, but after 12 months fees do apply.
For enquiries and to find out if refractive surgery is right for you please call or email the Lions Eye Institute Laser Vision Centre.

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Please phone the Lions Eye Institute volunteers on 9381 0844 for assistance in getting from the Winthrop Ave car park to the Lions Eye Institute.

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