



Vision Correction

Central Sydney Eye Surgeons



👁️ Why choose to have your vision correction at Central Sydney Eye Surgeons?

A vision centre is only as good as its surgeons, staff and technology.

The principal surgeon at Central Sydney Eye Surgeons, Dr Brian Harrisberg, has been performing laser vision correction for 15 years and has extensive experience in all refractive procedures especially LASIK and PRK.

Dr Harrisberg works in the Department of Ophthalmology at Royal Prince Alfred Hospital and is a clinical educator at Sydney University.

He graduated from the University of Witwatersrand in Johannesburg and has extensive experience in all aspects of ophthalmology in Australia.

Dr Harrisberg has given many lectures, authored and co-authored clinical papers and has been an invited speaker both locally and internationally.

Dr Harrisberg takes a conservative approach to refractive surgery and will match the correct procedure to a patient's needs and eye condition. He performs all types of laser eye surgery including LASIK and PRK, as well as phakic lens implant surgery and refractive lens exchange with multifocal lenses, toric lenses and monovision simulation. These methods can be used to correct presbyopia, that is the need for reading glasses.

With his extensive experience Dr Harrisberg understands that each patient wants the best possible outcome and strives to achieve this goal.

Laser vision correction is one of the most exciting and rewarding procedures developed within the last 15 years of medicine. Laser vision correction is now a commonly performed procedure, however, choosing a professional and experienced surgeon you can trust is important.

➤ Our commitment to you

Dr Harrisberg and his experienced team offer a full eye assessment followed by sound advice based on your requirements.

You will be treated as an individual with individual needs not just a number on a fast paced assembly line.

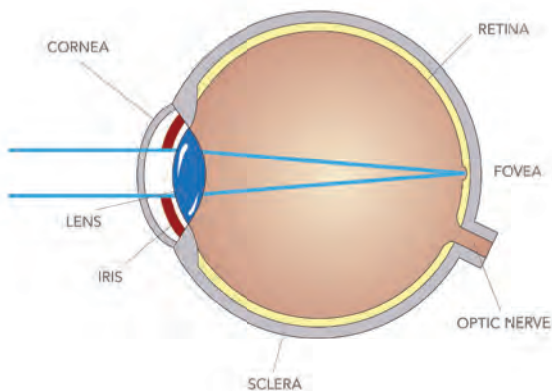
We will discuss with you the risks and benefits of the procedures in a friendly environment.

➤ Suitability Assessment

Prior to any decision being made about which procedure is best for you a full eye examination and discussion with Dr Harrisberg is carried out at the rooms. This consultation takes about 1-2 hours depending on the number of tests and questions you have.



🔗 How the eye works

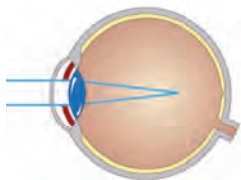


The eye works like a simple camera. Light rays pass through the eye to focus on the retina at the back of the eye. This image is then transmitted to the brain.

The cornea is the first surface the light rays hit. The cornea is clear and does not stop the light rays but does bend the light significantly so that it can pass through the pupil towards the retina. The lens inside the eye does the fine tuning focus of the image.

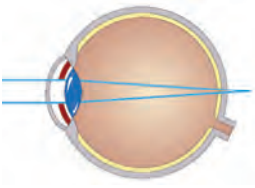
The iris (coloured part of the eye) works like the aperture of a camera and regulates the amount of light entering the eye.

🔗 Myopia – Short Sighted



In a short sighted eye the light rays focus in front of the retina. This causes a blurred image at the retina. This occurs because the eye is too long or the cornea is too steep. Generally short sighted people can see images up close but have most difficulty with objects in the distance.

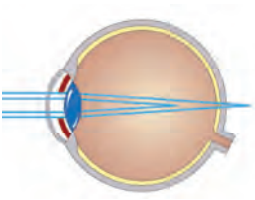
✦ Hyperopia – Long Sighted



In a long sighted eye the rays would come to focus behind the retina. This occurs if the cornea is too flat or the eye is too short.

Generally long sighted people can see objects better at a distance and have trouble with near objects and reading. However, sometimes they are blurred for both near and distance.

✦ Astigmatism



Astigmatism is when the curvature of the cornea is more like an egg rather than a ball. This causes the light rays to be bent in different directions as it passes through the cornea, the light can therefore cause a blurred image at the retina.

Astigmatism can occur on its own or more commonly in conjunction with short and long sightedness. Generally people with astigmatism have a slight blur at all distances.

✦ Presbyopia

With increased age the natural lens inside the eye becomes less able to change focus. This translates to an inability of the eye to focus on near objects. This usually happens in the mid to late forties when reading glasses are needed.

⦿ How refractive laser surgery works

As we cannot change the length of the eye, refractive surgery works by changing the curvature of the cornea to allow light to focus on the retina.

⦿ Procedures

⦿ LASIK

LASIK has become the most popular form of laser vision treatment. At Central Sydney Eye Surgeons LASIK involves creating a very thin flap of corneal tissue using a Zeimer LDV Crystal Line Femtosecond laser. Also known as Z-LASIK, it is the modern equivalent of a mechanical or blade cutter that shapes corneal flaps. It is the most advanced laser on the market, capable of producing any flap description at any particular depth.

The Z-LASIK allows flap creation without the use of a blade. It is all controlled through the microscope. Once the flap is created, the flap is then folded back to expose the corneal bed. A second laser machine, the Schwind Amaris 750s Excimer, is then used to adjust the corneal bed and change the curvature of the cornea.

This new laser is extremely fast, having the best tracker on the market and is able to track in six different directions at approximately 1000Hz. It also has one of the best smoothing laser profiles, creating an outstanding treatment profile with enhanced accuracy. Once the laser is complete, the flap is then repositioned. Due to the pressure difference in the eye and the atmosphere the flap does not require stitches and heals within a few weeks.

"I had my LASIK surgery with Dr Harrisberg in December 2004 and the results were nothing short of miraculous.

I'd been short-sighted and worn prescription glasses for almost 23 years... Now I have greatly improved vision without glasses. I have the freedom to swim in surf (and find my beach towel when I come out!) walk in the rain and live an active life without the hassle of glasses.

Dr Harrisberg and his team were very caring and professional. It was one of the best decisions of my life to have LASIK surgery."

Julie Townsend



⊕ PRK

In a PRK treatment the thin epithelial layer is removed and the Schwind Amaris 750s Excimer laser is used to adjust the corneal surface. A special bandage contact lens is then placed on the eye to assist with healing and to make the eye more comfortable in the first 12 to 24 hours. The contact lens will be left in position for 3 to 4 days until the epithelium has regrown.

PRK is also the chosen procedure for patients who want a “no touch” technique and who wish to avoid added risk from flap creation. PRK is also used for smaller corrections and eyes with thinner corneas. PRK has the same outcome as LASIK, but the recovery is slower and there will be a period of discomfort whilst the bandage contact lens is still in place for the first three days.

The new Schwind Amaris 750s Excimer laser allows transepithelial treatments where the epithelial surface does not have to be removed, as the laser will do this whilst it is applying its ablation treatment. This allows faster healing and minimises the pain of recovery. Transepithelial PRK is a “no touch” technique but it is not suitable for everyone.

“Having laser eye correction was the best decision I have ever made! The procedure was so much quicker than expected and I recovered with no complications. I no longer have to go home early because my contacts are uncomfortable and it now takes me 5 minutes less to get ready in the morning!”

Lisa

“I underwent refractive lens exchange by Dr Harrisberg for severe myopia. I had reached the stage where it was near impossible to manufacture lenses for prescription, my lenses had become thick, ugly & heavy. Since then I have enjoyed the freedom of no longer needing glasses except for reading and night driving.

My 22 yr old son has also had LASIK surgery performed by Dr Harrisberg and also is extremely happy with the results. I would recommend corrective eye surgery to anyone who might be considering this option.”

Karen & Andrew



🔍 Am I suitable?

🔍 Suitable candidates are generally:

- Over 18 years of age
- Have had little change in their prescription over the last 2 years
- Are short sighted less than 10 diopters
- Are longsighted less than 5 diopters
- Have less than 5 diopters of astigmatism

Although you may fall outside these guidelines refractive surgery may still be a safe option for you. A full assessment will ultimately determine your suitability. LASIK or PRK may not be possible but other options are available.



➤ Non-Laser Procedures

➤ Refractive Lens Exchange

Refractive lens exchange, clear lens removal, lensectomy or refractive lensectomy are all terms to describe the surgical removal of the eyes natural lens while it is still clear and transparent and replace it with an artificial lens of a different power.

The lens is removed and exchanged with an artificial lens with a power that has been carefully calculated to refocus the light onto the retina. This procedure is done when other refractive procedures such as LASIK are not able to be performed. Monovision or multifocal lenses can be inserted to treat presbyopia as well.

➤ Phakic Implants

Another surgical option is a phakic implant lens. The main difference between this procedure and refractive lens exchange is that the crystalline lens is not removed; rather the additional lens is placed in front of your existing lens. Phakic implants are used only to correct very high amounts of short and long sightedness, which are not suitable for treatment using any other techniques. Leaving the natural lens alone allows natural near focus, avoiding the need for glasses if under 45 years of age. The advantage of phakic implants is that they are reversible and can be removed at any time if required.

➤ Expectations from the Procedure

Dr Harrisberg and the staff at Central Sydney Eye Surgeons will take the time to discuss all the benefits and the risks of the procedure so that you are well informed and have realistic expectations before consenting to the procedure.

No procedure is totally risk free, however all risks are discussed with you during the initial consultation. This consultation is done in a relaxed and non-threatening environment, and all questions you have will be answered. After you have all the information you will be asked to weigh up the pros and cons before consenting to have the surgery done.

⊕ PRESBYOPIA

Presbyopia is the term given for failure to focus at near brought on by age, known as failure of accommodation. As we reach 45, most eyes will struggle to read small print and need magnifying spectacles in addition to whatever refractive error existed before.

⊕ The following presbyopia treatment is available at Central Sydney Eye Surgeons:

- Laser or Refractive lens exchange using monovision i.e. correcting one eye for distance and one eye for near
- Refractive lens exchange using multifocal intraocular lenses

Other new technologies are available including laser correction (Presbymax) and the Kamra inlay, a smaller pinhole device.

- PresbyMax is laser correction on the front surface of the eye to reshape only a small central apex. This will keep good distance vision and allow some near vision. It does not allow total glasses independence.
- The Kamra corneal inlay is a small pin-hole device that is put inside the cornea. This is done with the help of a Femtosecond laser flap creation, and the advantage of this inlay is that it can be removed at any time and this will restore the cornea to its original shape and function.

"By the time I reached my fifties I had trouble driving at night and driving in tunnels at any time of day was especially difficult. I lost a lot of confidence and my lifestyle was restricted. It took me two years to decide to go ahead with refractive lens exchange and if I had known how easy it was I would have done it sooner.

The procedure is so simple and there is absolutely no pain involved. I chose to have a mono-vision system so that I could work at a computer without glasses, and it does take time to adjust. For a couple of weeks I had one blurry eye and one clear sighted eye, but that is no longer the case.

I can honestly say it's the best thing I've ever done. After 40 years I no longer wear glasses except for readers when I'm reading for pleasure. I can read labels without glasses. I can drive in tunnels. I can drive at night. I can see again. I highly recommend this procedure to anyone."

Anne Hartley



Dr Harrisberg uses the latest technology available including customised treatments.

❖ The latest technology is important to:

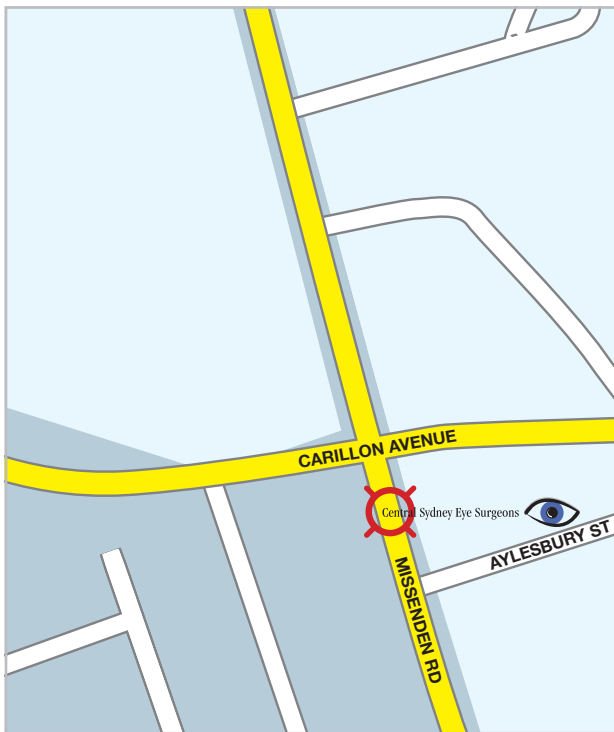
- allow the surgeon to accurately assess whether you are a candidate for laser vision correction.
- enable the surgeon to personalize your treatment plan.
- ensure a lower risk of problems with your night vision after the procedure.
- allow quick post-operative recovery of visual acuity and tissue healing.



Location Map

Phone **02 9519 3882** to book an initial consultation or log on to **www.centralsydneyeye.com.au** for more information.

You can also email any questions you have to **enquiries@centralsydneyeye.com.au**.



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