



EYE SURGERY FOUNDATION

- Perth's only freestanding Ophthalmic Day Hospital
- Improving ophthalmic research and technology for the Western Australian community for 16 yrs.
- Certification to ISO 9001 standard

Expert day surgery for

- Cataract Extraction and Lens Implant • Pterygium
- Glaucoma • Oculoplastic Surgery • Strabismus • Corneal Transplant
- All types of Refractive Surgery – LASIK, LASEK, PRK, CTK, Phakic Lens and Refractive Lens Exchange (RLE)

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Our Vision is Improved Vision

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Bladeless laser eye surgery

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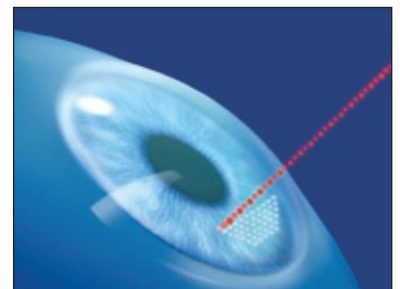


LASIK refractive surgery to remove dependency on glasses is now the most common operation performed worldwide. Traditionally, the surgery involved the use of a blade within an automated mechanical device (microkeratome) to create an outer flap of corneal tissue, lifted to expose the underlying corneal bed that was then reshaped with the excimer laser. This permanent reshaping corrects short and longsightedness as well as astigmatism. Now, the use of a different laser to create the flap has made refractive surgery bladeless.

The development of the femtosecond laser (AMO's Intralase®) has revolutionised the LASIK procedure, producing an accurate corneal flap in 15 seconds. It does this by generating minute bubbles that separate the corneal layers.

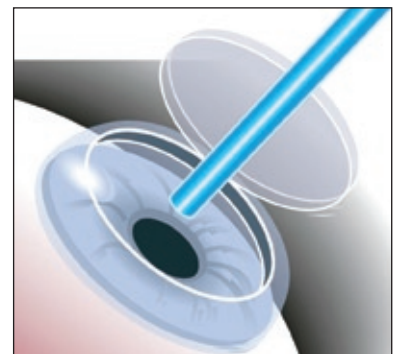
Blade related complications, whilst rare, can result in less than optimal corrected vision. Moreover, any repeat surgery needs to be delayed for three months which can be problematic for patients, especially if one eye has already been treated. With the femtosecond laser, the procedure is repeated in 5 to 30 minutes rather than three months.

In eyes with small palpebral fissures that limit corneal access, the Intralase device has distinct advantages over the cumbersome microkeratome. The entire procedure is faster as well. Postoperatively, the flap adheres very nicely and because of the more vertical cut there is less chance of flap dislocation.



■ The femtosecond laser creates tiny bubbles beneath the corneal surface to create a corneal flap.

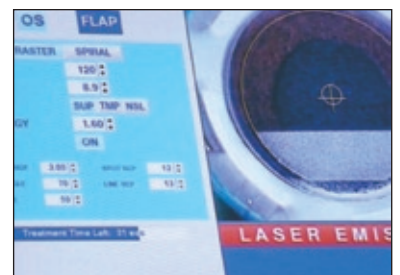
While the results in terms of safety and efficacy are equivalent for either blade or laser flap creation, some studies indicate a higher degree of predictability in terms of flap thickness with the laser. This is important in terms of preventing an excessively thin residual corneal bed and therefore the dreaded complication of keraectasia (iatrogenic keratoconus).



■ The excimer laser goes to work reshaping the underlying cornea to correct refractive errors.

The femtosecond laser is also useful in cutting corneal tissue for corneal transplantation as well as the insertion of corneal ring segments to treat keratoconus.

On a personal level the surgery is even more enjoyable because as the flap is being constructed one views it on a LED video overlay adding to the 'computer game-like' technology this system simulates. Fun very rarely comes free and the benefits are regarded by many ophthalmologists to be worth the investment. ■



■ As the flap is created, an on-screen display tracks progress.