

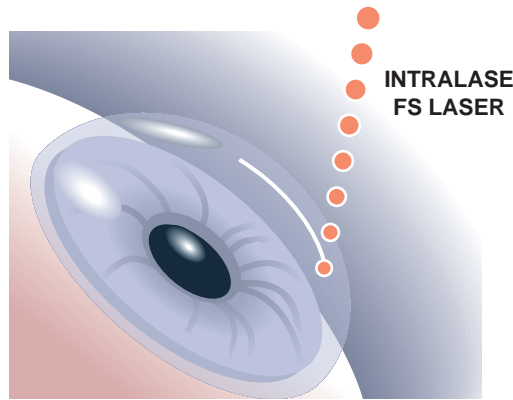
Laser Revolutionizes Corneal Transplants

The advanced IntraLase® FS Laser is the first laser in the U.S. used to create innovative corneal incisions for full-thickness corneal transplants, representing the greatest technological breakthrough in corneal transplantation in over 50 years. The ultra-fast femtosecond laser allows the surgeon to create precisely shaped incisions that enable the tissue to fit together much like a puzzle. This optimized wound architecture may provide for a more stable graft that potentially requires fewer sutures and speeds patient healing and visual recovery.

INTRALASE-ENABLED KERATOPLASTY

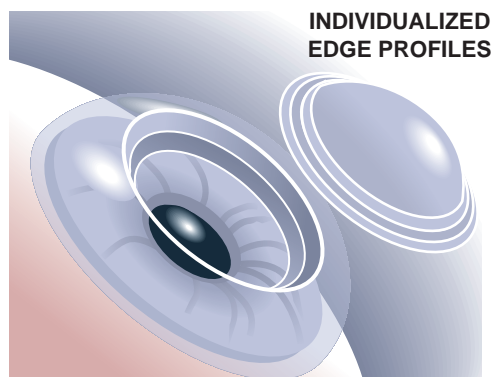
1 CORNEA CUT

Using an “inside-out” process, the IntraLase laser’s infrared light beam, generating 60,000 pulses per second, is precisely focused to a point within the cornea where bubbles are formed to gently create an incision.



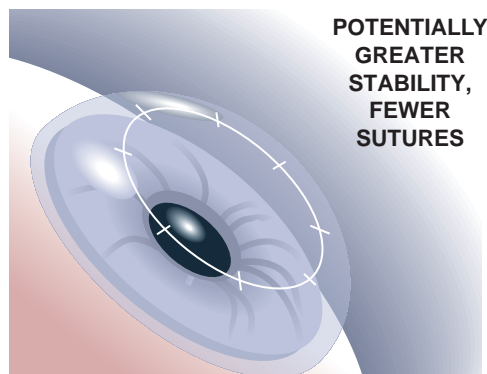
2 SURGEON-DESIGNED INCISIONS

The surgeon programs the laser to create precisely shaped incisions forming individualized edges of both the patient’s cornea and transplanted tissue, which fit together like a puzzle.



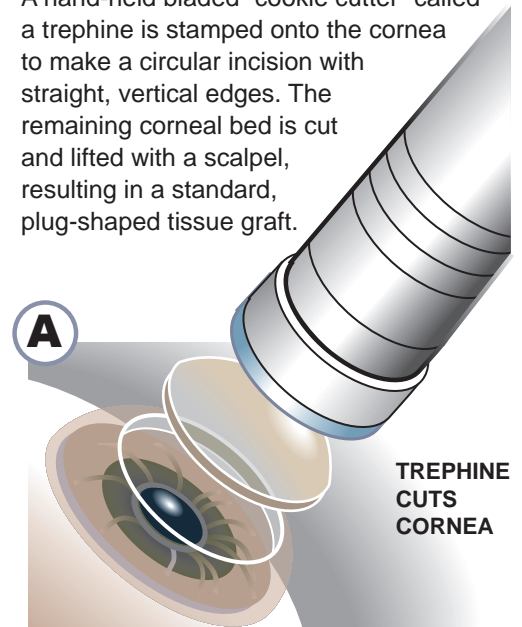
3 CORNEA IMPLANTED

These precise incisions may result in a more stable graft that requires fewer sutures. The sutures may be removed earlier (after only six months in initial cases) and patients may achieve faster full visual recovery. Shaped incisions may be up to seven times stronger, greatly reducing the risk of displacement.¹

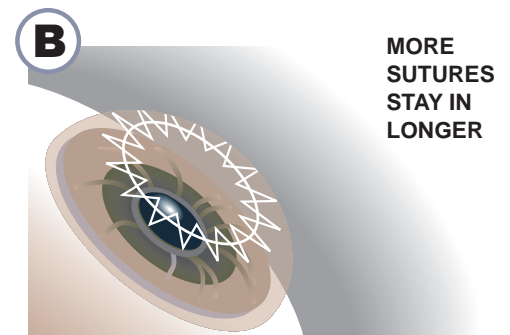


TREPHINE METHOD

A hand-held bladed “cookie cutter” called a trephine is stamped onto the cornea to make a circular incision with straight, vertical edges. The remaining corneal bed is cut and lifted with a scalpel, resulting in a standard, plug-shaped tissue graft.

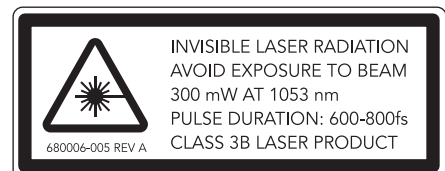


With trephine preparation, the transplanted tissue graft requires suturing around the circumference of the graft to maintain its position in the eye. Sutures stay in the eye for one year or longer, and patients generally do not achieve full visual recovery for at least a year.



“This is an unprecedented advance in cornea transplantation and clearly demonstrates that the IntraLase femtosecond laser technology is rapidly moving us toward a revolution in corneal surgery.”

— **Roger F. Steinert, M.D.**, director of cornea, refractive and cataract surgery at the University of California, Irvine and 2005-2006 president of the American Society of Cataract and Refractive Surgery



Source: IntraLase Corp.

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1. Personal communication, Roger F. Steinert, M.D.