

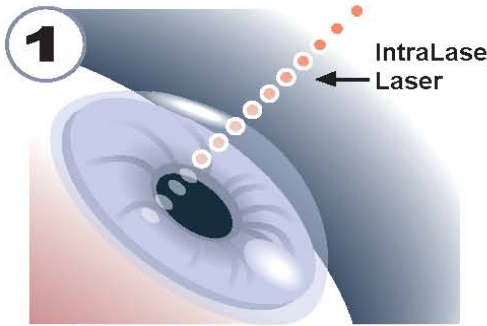
# THE NEW SCIENCE OF LASIK

There are two steps in the LASIK procedure. First, the surgeon creates a micro-thin corneal flap, which is lifted to expose the inner cornea for step two, tissue ablation by an excimer laser. New science reveals that the first step, creation of the corneal flap, has been underestimated for its affect on LASIK outcomes. Surgeons have found statistically and clinically significant differences in the vision patients achieve – better than 20/20 to 20/15 and even 20/12.5 – when the IntraLase® laser is used to make the corneal flap.

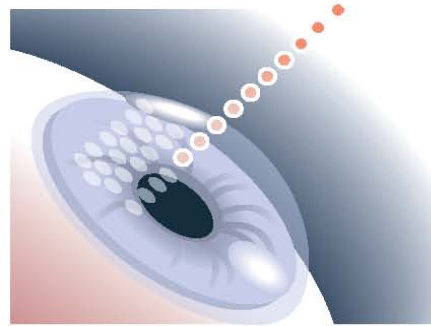
## LASIK WITH THE INTRALASE® LASER

**TOTAL TIME: 30 SECONDS**

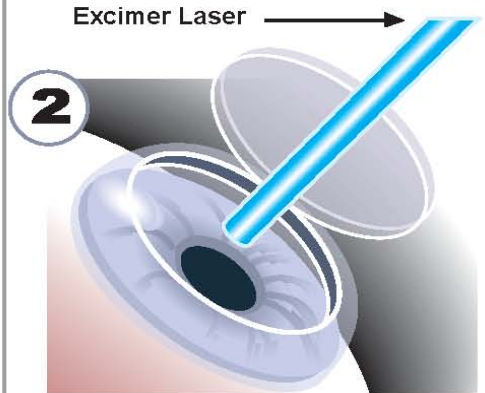
The ultra-fast IntraLase FS30™ laser uses an infrared light beam, generating 30,000 pulses per second, to prepare an optimal corneal architecture below the flap.



Using an “inside-out” process, the IntraLase laser is precisely focused to a point within the cornea, where thousands of microscopic bubbles are formed to define the architecture of the intracorneal surface and the resulting flap.



The surgeon controls flap diameter, depth, hinge location and width, and side-cut architecture – factors that can be varied per patient. Bubbles are then stacked along the edge up to the corneal surface to complete step one.



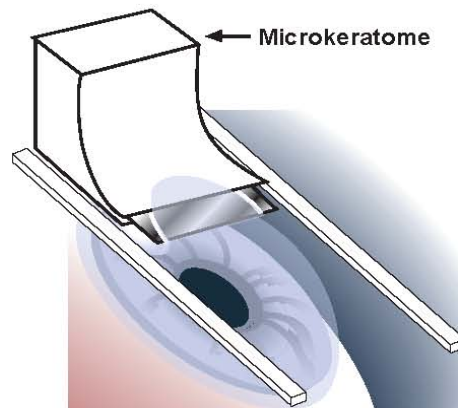
The physician then exposes the prepared corneal bed for excimer laser treatment by lifting the flap. The LASIK procedure is complete when the flap is securely repositioned on its beveled edge.

## NEW “BELOW-THE-FLAP” DISCOVERY

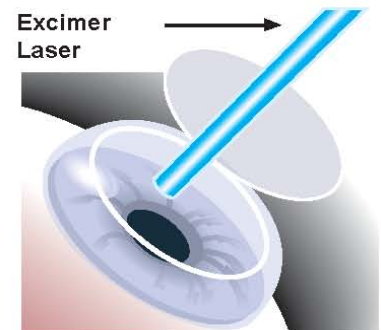
If the corneal surface is left with high and low spots (higher- and lower-aberrations) or irregular hydration, the precision of the excimer tissue ablation (step two) can be compromised and with it, the visual outcome. Better outcomes reported with the IntraLase laser may relate to what it does below the flap: creating an optimal corneal architecture for the procedure’s second step.

## TRADITIONAL LASIK PROCESS

**1** Prior to the IntraLase laser, LASIK’s first step was done manually with an oscillating razor blade, called a microkeratome. This device causes the majority of LASIK complications and can be unpredictable even in skilled hands.



**2** The flap is then lifted to expose the inner cornea for the second step: vision treatment by the excimer laser.



Source: IntraLase Corp.

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