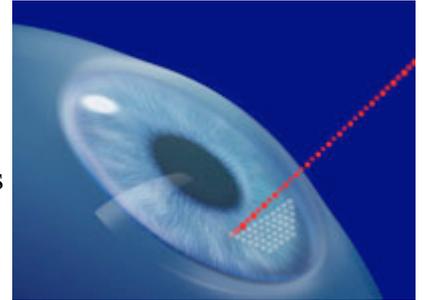


**LASIK** eye surgery using Intralase (sometimes called IntraLASIK) In regular [LASIK](#) a blade is used to make the flap, with IntraLASIK a laser does this step. For patients with larger pupils, thinner corneas or large amounts of nearsightedness or astigmatism, it may be the best choice. In addition, the laser keratome offers unique safety factors. The Intralase technique uses a laser to precisely, safely create the LASIK flap.



The INTRALASE FS Laser introduces new high precision femtosecond laser technology to ophthalmology. Surgeons now have the opportunity to offer their patients a safer, computer controlled alternative to a microkeratome for creating the corneal flap. By using the new INTRALASE FS Laser, surgeons may avoid the complications related to the microkeratome and metal blade problems. The microkeratome uses a significant level of vacuum to applanate the cornea through a suction ring and hold it tightly as the metal blade slices across to create the flap. The INTRALASE FS Laser creates the flap under very low vacuum, delivering the laser energy directly to the stromal layer of the cornea through a disposable glass lens. The outer surface of the cornea suffers no trauma, and the procedure is completely painless. In testing, greater flap stability as well as a high degree of accuracy in both the depth and size of the resections has been demonstrated.

What is the difference between a femtosecond laser and the excimer laser commonly used in vision correction procedures?

The word femtosecond refers to the pulse duration of the laser as it impacts the cornea. The INTRALASE FS Laser uses a rapidly fired, very short pulse with a spot size of only 3 microns. This enables the INTRALASE FS Laser to apply less energy to the corneal tissue with micron range accuracy. Excimer lasers use a 193 nm wavelength which is absorbed at the cornea's outer surface, immediately ablating tissue upon contact.



The INTRALASE FS Laser uses a long wavelength (1053 nm) that is not absorbed but instead can pass through the cornea with absolutely no effect on tissue until it reaches the pre-programmed target. The INTRALASE FS beam is optically honed into a 3-micron spot size and precisely delivered via computer software to the prescribed intracorneal location. The laser pulses are placed close together to create precise subsurface incisions.

These femtosecond laser pulses cut the cornea at the exact desired location selected by the surgeon. The spots are placed close together in a spiral pattern to create subsurface incision, and then are consecutively stacked along the periphery of the resection plane until a cut to the corneal surface is made. The INTRALASE FS Laser's computer is programmed to leave an uncut section of tissue on the surface so that the flap may be folded back for the ablation. The result - remarkably safe, precise and predictable corneal resections.

Because of the incredibly small spot size and femtosecond precision, surgeons will be able to design very precise, computer-controlled incisions at any depth within the cornea without the risk of damaging surrounding tissue.

The INTRALASE FS Laser is an extremely clean and efficient solid state laser which means it does not rely upon a mixture of gases to generate a homogeneous beam as does the excimer laser. Because of the laser's durability, predictability and software expandable platform, a rapid succession of procedures is expected to have significant impact on the growth of the vision correction industry.

For more information, visit the IntraLase website at [www.IntraLase.com](http://www.IntraLase.com).

From another source:

The important message is SAFETY and the fact Intralase can do thinner flaps and therefore patients whose corneas otherwise were too thin.....one of the best description I ever heard was "Intralase is rapidly becoming known worldwide as the KEY INGREDIENT to optimizing LASIK visual outcomes, minimizing risks, and eliminating patient anxiety".