The IntraLase FS and iFS Laser Systems are ophthalmic surgical lasers indicated for use in patients undergoing surgery or treatment requiring the initial lamellar resection of the cornea. For safety information, please see inside.
IntraLase Technology:
Two Innovative Femtosecond Laser Platforms

**iFS Advanced Femtosecond Laser System**
AMO’s latest laser platform has all the features of the *IntraLase FS* System, plus:

- Increased speed
- Enhanced flap-customization capabilities
  - Inverted bevel-in side cut
  - Elliptical flap option
  - Advanced corneal capabilities

**IntraLase FS Femtosecond Laser System**

- Provides unparalleled uniformity and precision, biomechanical stability and an unsurpassed safety profile
- Enables physicians to customize flap parameters such as depth, edge angle and centration

Both femtosecond laser systems embody *IntraLase* Technology, an essential component of the *iLASIK* Solution.

The *IntraLase FS* and *iFS* Laser Systems are ophthalmic surgical lasers indicated for use in patients undergoing surgery or treatment requiring the initial lamellar resection of the cornea. Contraindications may include corneal edema, glaucoma, and keratoconus. Risks and complications may include corneal pain, flap tearing, and epithelial ingrowth. Patients are requested to consult with their eye care professional for a complete listing of contraindications and risks. U.S. Federal Law restricts this device to sale, distribution, and use by or on the order of a physician or other licensed eye care practitioner.

*iFS* Femtosecond Laser
IntraLase FS Femtosecond Laser
Advanced Capabilities from the iFS Femtosecond Laser

The iFS Laser System has all the features of the IntraLase FS System, plus increased speed and enhanced flap-customization capabilities that include:

- Inverted bevel-in side cut up to 150° for optimal biomechanical stability
- Elliptical flap option to maximize stromal bed exposure
- Tighter spot separation provides smoother stromal beds and a virtually effortless flap lift
- Lower energy per pulse, which may reduce tissue response and inflammation
- Higher repetition rate and faster procedure time, which enhance patient comfort and confidence
- High-resolution video microscope for maximum surgeon comfort

Inverted Bevel-In Side Cut

- Increased flap adhesion post-operatively for optimal wound healing
- 3x more flap stability (150° side cut) vs. microkeratome during flap lift
- Significantly reduced flap gutter
- Improves severed nerve apposition
- Less of a reduction in corneal sensitivity
- Fewer dry eye signs and symptoms than with the 30° side cut

“With the added speed of the iFS Laser, I am now placing tighter pulses and bevel-in edges, allowing me to create flaps that are faster and easier to lift, with smoother beds and increased stability.”

— Christopher L. Blanton, MD
Inland Eye LASIK
Ontario, CA
Elliptical Flap Enhances Surgical Options

- Distributes forces symmetrically to the elliptical cornea
- Moves the hinge peripherally to maximize stromal bed exposure for full delivery of excimer ablation and reduces chance of ablating the hinge\(^2\)
- Allows use of a wider hinge angle\(^2\)
- May spare some corneal collagen fibers to enhance biomechanical stability\(^2\)
IntraLase Flaps Result in Greater Biomechanical Stability

- Stronger flaps through faster wound healing
- Increased adhesion post-operatively
- Inverted bevel-in side cut promotes faster nerve regeneration post-operatively

In New Zealand White rabbit eyes, three groups of flaps were created with either the AMADEUS™ microkeratome, iFS Laser 70° side-cut angle, or iFS Laser 140° side-cut angle. At 3 months, a force gauge was attached to a curved lens and pulled perpendicularly until the flap dehisced and peak force could be measured. Note the IntraLase FS Laser has a side-cut angle up to 90°.

Central Corneal Sensation

At Day 90, eyes with the 140° side cut had significantly more central corneal sensation than eyes with the 30° side cut.

Similarly, eyes with the 140° side cut had significantly more superior corneal sensation than eyes with the 30° side cut (P<.001).
**Significantly Smoother Stromal Beds**

*IntraLase* Technology results in significantly higher-quality stromal beds than are possible with the FEMTO LDV™.

- Stromal bed roughness with the *iFS* Laser was 39.55 nm
- Stromal bed roughness with the *IntraLase FS* Laser was 41.20 nm
- Stromal bed roughness with the Ziemer FEMTO LDV Laser was 42.87 nm

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**IntraLase Technology Showed Faster Visual Recovery**

At all time points measured, the percentage of eyes that recovered at post-operative UCVA of 20/20 or better was significantly higher in the femtosecond group.

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A retrospective analysis of 1,000 eyes treated with the *IntraLase FS* Laser and 1,000 eyes treated with a mechanical microkeratome (N=2,000)
Enhanced Safety with Unparalleled Uniformity and Precision

With over 3.5 million procedures and counting, “all-laser” IntraLase Technology offers numerous safety advantages over microkeratome technology, both during flap creation and post-operatively.

**Flap Creation Safety Advantages**

Reduces or eliminates several complications, including:\(^6-^8\)
- Buttonhole or free flaps
- Irregular flaps
- Microperforations
- Decentered flaps
- Epithelial defects

Furthermore, higher laser speed reduces time under suction, which means:\(^2\)
- Less risk of suction break
- Less time during which the eye experiences elevated intraocular pressure
- Less potential for subconjunctival hemorrhages

**Unparalleled Uniformity and Precision Give You the Ability to Precision-Design Your Patients’ Intracorneal Architecture**

The unique computer-controlled laser system enables surgeons to create thin, planar flaps with a uniform mean thickness of 112 ± 5 µm and an average standard deviation of as little as 4 µm within each flap,\(^9\) maximizing residual bed and potentially producing a more stable post-LASIK cornea.

![Average SBK Flap Thickness](image)

Courtesy of Jason Stahl, MD, Durrie Vision, Overland Park, KS, USA
Advanced Corneal Capabilities with IntraLase Technology

_IntraLase_ Technology brings advanced corneal options within reach, including intrastromal ring implantation and channels, and _IntraLase_ Enabled Keratoplasty.

Create Unlimited Customized Incisions
For optimized tissue resection, physicians can customize parameters such as channel width, offset, depth, spot separation, line separation and energy; side-cut radius, angle and energy; and layer separation. This advanced laser system enables the user to perform the following cut segments:

- Incisions for channels or rings
- Anterior side cut
- Posterior side cut
- Lamellar cut (full or ring)

Femtosecond Technology Revolutionizes Corneal Transplants with IntraLase Enabled Keratoplasty
_IntraLase_ Technology is the first in the world used to create innovative shaped corneal incisions for full-thickness corneal transplants.

- Precisely shaped angled edges fit snugly to improve alignment
- Provides a smooth corneal contour with greater surface area to speed wound healing
- _IntraLase_-cut grafts have better wound integrity and seven times higher resistance to wound leakage

The _IntraLase FS_ and _iFS_ Laser Systems are ophthalmic surgical lasers indicated for use in the creation of a lamellar cut/resection of the cornea for lamellar _IntraLase_ Enabled Keratoplasty (IEK), for the creation of a penetrating cut/incision for penetrating IEK, and for corneal harvesting. Contraindications may include any corneal opacity adequately dense to obscure visualization of the iris, descemetocoele with impending corneal rupture, previous corneal incisions that might provide a potential space into which the gas produced by the procedure can escape, and cornea thickness requirements that are beyond the range of the system. Patients are requested to consult with their eye care professional for a complete listing of the contraindications and risks. U.S. Federal Law restricts this device to sale, distribution, and use by or on the order of a physician or other licensed eye care professional.
“We’ve done some studies with the iFS Femtosecond Laser. It’s like night and day compared to anything else I’ve ever used.”

— Kerry D. Solomon, MD
Carolina Eyecare Physicians, LLC
Mt. Pleasant, SC

“These studies were statistically significant and certainly suggest that the inverted bevel-in side cut design of the iFS flap is far more stable than mechanically created flaps. The ability to precisely create truly customized flaps for every patient further validates the iLASIK Procedure.”

— Prof. Dr. Michael C. Knorz
FreeVis LASIK Zentrum
Universitätsklinikum Mannheim, Germany

“Corneal surgery is rapidly evolving towards disease-specific surgery. IEK is part of this evolution; breakthrough technology allows complex incision patterns which are reproducible between donor and recipient, or eye bank and doctor. IEK also enables surgeons to choose the pattern most consistent with a patient’s underlying problem.”

— Francis W. Price, Jr., MD
Price Vision Group
Indianapolis, IN

“The bottom line is that IntraLase Technology is a tried and true system. It works, it’s consistent and it gets excellent results. It’s years ahead of any of the other platforms.”

— Louis Probst, MD
TLC The Laser Eye Centers
Chicago, IL
The iLASIK Solution

Innovative Technologies Delivering Exceptional Results

The iLASIK Solution, available exclusively from AMO, is the combination of IntraLase and Advanced CustomVue Technologies. This unique blend of technologies sets a new standard for laser vision correction.

- **Beyond 20/20.**
  The iLASIK Technology Suite provides a truly customized treatment, helping you take more of your patients beyond 20/20 vision*

- **Good Enough for NASA and Your Patients.**
  NASA astronauts and U.S. fighter pilots can have laser vision correction surgery today because of the exclusive, validated safety and precision performance of iLASIK Technologies

- **Leading Innovation.**
  With over 20 years of innovation, more than 15 million procedures worldwide and the broadest range of FDA wavefront-guided LASIK approvals, iLASIK Technologies are the true industry leaders

- **Unsurpassed Service, Support and Value.**
  Our award-winning† service and post-sales support enhance the value of your investment in the premium iLASIK Platform by maximizing reliability, quality and patient outcomes

For more information and to contact an AMO representative, go to www.amo-ilasik.com or call 1-877-AMO-4LIFE.

Laser assisted in-situ keratomileusis (LASIK) can only be performed by a trained ophthalmologist and for specified reduction or elimination of myopia, hyperopia, and astigmatism as indicated within the product labeling. Laser refractive surgery is contraindicated for patients: a) with collagen vascular, autoimmune, or immunodeficiency diseases; b) who are pregnant or nursing women; c) with signs of keratoconus or abnormal corneal topography; d) who are taking one or both of the following medications: Isotretinoin (Accutane®) and Amiodarone hydrochloride (Cordarone®). Potential side effects to laser refractive surgery may include glare, dry eye, as well as other visual anomalies. LASIK requires the use of a microkeratome that cuts a flap on the surface of the cornea, potential side effects may include flap related complications. Patients are requested to consult with their eye care professional and Patient Information Booklet regarding the potential risks and benefits for laser refractive surgery, results may vary for each individual patient.

Restricted Device: U.S. Federal Law restricts this device to sale, distribution, and use by or on the order of a physician or other licensed eye care practitioner. U.S. Federal Law restricts the use of this device to practitioners who have been trained in its calibration and operation and who have experience in the surgical treatment and management of refractive errors.

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*20/16 results delivered with excimer laser; clinical studies sent to the FDA via P930016 supplement 021.
†AMO won the 2010 Omega NorthFace ScoreboardSM Award for delivering world-class customer service and consistently exceeding customer expectations. This is the ninth straight year AMO has won the award.

References
4. Data on file. Study conducted by Melvin A. Sarayba, MD.

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