# *IntraLase vs. Microkeratome Comparison Chart ©*

| | *IntraLase* | *Microkeratome* |
|---|---|---|
| ***Name Detail*** | IntraLase, also known as IntraLASIK, All Laser LASIK and bladeless LASIK. | Microkeratome. |
| ***Corrective Uses*** | This is the laser used in refractive error correction surgery (including LASIK) to create the corneal flap. | This is the blade used in refractive error correction surgery (including LASIK) to create the corneal flap. |
| ***Procedural Notes*** | This is a laser rather than a blade. Can be used in combination with wavefront or standard laser ablation. | This is the blade used in the LASIK procedure. Can be used in combination with wavefront or standard laser ablation. Uses a lower vacuum suction to hold the eye while creating the flap. |
| ***Healing & Recovery*** | 2 days – 1 week; faster than LASEK and PRK. Allowed to drive 1-3 days after s urgery. | 2 days – 1 week; faster than LASEK and PRK. Allowed to drive 1-3 days after surgery. |
| ***Benefits*** | Better contrast sensitivity outcomes than standard LASIK. More precise flap positioning and thickness, decreased probability of complications, scarring, or vision defects from uneven flap edges or buttonhole flaps. Is an option for almost all refractive surgery candidates. Less chance of infection due to sterile system. Better healing and flap adhesion to cornea. Less chance of epithelial in-growth. Precise vertical edge results in decreased probability of complications, scarring or vision defects. Fewer cases of dry eye post-op. Fewer follow-up enhancement procedures reported than with microkeratome. | Well established procedure with good record of success. Is less expensive than IntraLase. Many surgeons prefer it because it is faster than IntraLase. |

| | *IntraLase* | *Microkeratome* |
|---|---|---|
| ***Potential Drawbacks*** | Corneal edema and photosensitivity may increase, but should resolve during the six month healing period. Costs about $300 more per eye than microkeratome. | Possibility of uneven, thin edges or abnormal corneal surfaces, leading to aberrations. Possibility of buttonhole flap leading to scar. Some LASIK candidates don't qualify. More chance of epithelial in-growth. |
| ***Indications for Procedure*** | Same as for LASIK. | Same as for LASIK. |
| ***Contradictions to Procedure*** | Same as for LASIK. | Same as for LASIK. |
| ***RISKS*** | Same as for LASIK, with slightly lower risk of complications. | Same as for LASIK. |
| ***HOW TO AVOID PROBLEMS*** | Find a surgeon with thousands of procedures of experience. Exams to include routine eye exam, slit-lamp, fundus, corneal thickness, topography and pupillometry, and a Shirmer test. Follow instructions carefully after surgery. Request wavefront diagnostics or a reason why this is not recommended. Replace old makeup and don't use for several days after surgery. Avoid strenuous exercise for 1 week. Avoid contaminated water for at least 1 week, including seawater, lakes, swimming pools, spas, etc. Avoid rubbing eyes for 2 weeks. | |

Acronyms not clarified in the chart include:
– BCV = Best Corrected Vision
– BCVA = Best Corrected Visual Acuity (same as BCV)
– DLK = Diffuse Lamellar Keratitis
– HOA = Higher Order Aberrations
– LOA = Lower Order Aberrations
– ASA =Advanced Surface Ablation (Used in PRK and LASEK)
– ICL = Implantable Contact Len
– IOL = Intra-Ocular Lens.

Per the Council for Refractive Surgery Quality Assurance (CRSQA) Standards for refractive surgery:
– Minimum of 90% of patients achieve at least 20/40 uncorrected vision.
– Minimum of 50% of patients achieve at least 20/20 uncorrected vision.
– Minimum of 85% of patients achieve within 1± diopter of target.
– Minimum of 50% of patients achieve within 0.5± diopter of target.
– Maximum of 3% of patients experience complications unresolved by 6 months postop.
– Maximum of 0.5% of patients experience serious (vision-threatening) complications at 6 months post op requiring extensive maintenance or invasive intervention.