

NASA Announcement

NASA has approved advanced LASIK for use on astronauts.

- Until NASA's announcement, refractive surgery was not approved for astronauts, even though space teams have had issues with glasses and contacts in the past. The extreme zero-gravity conditions that NASA pilots, mission and payload specialists endure make even simple contact lens care and maintenance an issue.
- NASA's approval of LASIK came after extensive review of the U.S. Navy's clinical data resulting from the use of both the IntraLase™ Method and Advanced CustomVue™ procedure.

NASA's approval validates the clinical excellence of the Advanced CustomVue™ procedure with the IntraLase™ Method.

LASIK's success in the military led the way to space.

- The military has been at the forefront of investigating advanced LASIK, due to the extreme conditions military personnel encounter.

While LASIK is the most-common elective procedure in the US, the Department of Defense put the procedure, using Advanced CustomVue with the IntraLase Method, through the rigors of additional clinical study to ensure its safety and effectiveness for its most elite personnel. Some notable results of the many clinical trials conducted include:

- An evaluation of Custom LASIK for 100 military personnel showed that 95 percent achieved 20/20 uncorrected vision or better; these patients, on average, were previously only able to read the first line (the big "E") of the vision assessment chart.¹
- In a study of different methods to create the LASIK flap, 370 naval personnel underwent bilateral wavefront-guided LASIK with either the femtosecond laser or microkeratome blade. One week after surgery more than 76 percent of femtosecond laser patients achieved an uncorrected visual acuity of at least 20/16 (better than 20/20) compared to 58 percent of microkeratome patients.²
- In an evaluation of 785 aviators, 89 percent of Navy pilots rated their ability to land on an aircraft carrier as moderately to significantly better after laser vision correction. None said it was worse after surgery.³
- A separate study determined that more than 90 percent of marksmen had improvement in marksmanship skills after laser vision correction; a significant result given the visual precision of marksmen.⁴

The final frontier for LASIK is not space; it is overcoming consumers' fears of LASIK.

- Consumers looking for proof that LASIK is safe, effective, and advanced enough for them need look no further; LASIK has proven it has "The Right Stuff."
- LASIK is the most commonly performed elective procedure: nearly 12 million people have had LASIK to-date.
- It's safe enough for astronauts. Even your most-extreme lifestyle is nothing compared to being ejected from an F16 or the G-Forces of atmospheric blastoff. LASIK has now been put through extensive tests for safety and effectiveness. All surgical procedures have risks, but with this exceptional track record, the average consumer has almost nothing to fear from LASIK.

Inside today's Advanced LASIK procedure:

- LASIK is a two-step procedure.
- Today, technologies have advanced LASIK to an all-laser procedure with extreme computer-guided precision and complete customization, benefiting patients with outstanding safety and visual outcomes .⁵
- Inside the First Step: An ultra-fast, computer-guided laser creates the corneal flap. The IntraLase FS laser replaces the hand-held microkeratome blade, virtually eliminating almost all of the most severe, sight threatening LASIK complications related to the use of a blade in the first step.
- Inside the Second Step: Wavefront guided technology maps, and then the computer controlled laser custom-corrects vision based upon the unique characteristics of an individual's eye. The sophisticated wavefront measurement provides 25 times more precision than the standard instruments used for glasses and contact lens measurements.
- The highly advanced combination of the Advanced CustomVue wavefront-guided laser, combined with the safety of the IntraLase FS (femtosecond) laser-created flap has proven in extensive clinical trials to provide excellent visual outcomes.

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1. Source: Captain (Retired) Steven C. Schallhorn, "US Navy study: Custom PRK versus custom LASIK". Presented at the European Society of Cataract and Refractive Surgeons annual meeting; September 8, 2006; London, UK.
2. Source: Tanzer DJ, Schallhorn SC. Comparison of visual outcomes with femtosecond and mechanical microkeratomes for wavefront-guided LASIK. Presented at the American Academy of Ophthalmology annual meeting; November 13, 2006; Las Vegas, NV.
3. Source: Schallhorn SC, Tanzer DJ, 'Refractive Surgery in Naval Aviation', Presented at the Aerospace Medical Association annual meeting, May 15, 2006, Orlando, FL
4. Source: Captain (Retired) Steven C. Schallhorn, "Refractive Surgery in the Navy", Presented at the Aerospace Medical Association annual meeting; May 17, 1999; Detroit, Michigan.
5. Source: Durrie, Daniel, "Randomized Prospective Clinical Study of LASIK: IntraLase Laser versus Mechanical Keratome" American Society of Cataract & Refractive Surgery, May 4, 2004