

WAVEFRONT TECHNOLOGY

LASERWAVE™ = the latest in Wavefront Technology plus IntraLase. Only available at Laser Eye Center Cedars-Sinai Medical Center, Mark Goodson Building.

Customized Wavefront LASIK is the best type of Laser Vision Correction in the world

Perfected over the last decade, laser eye surgery now corrects eyesight to its best potential quality! We are currently one of the only LASIK Los Angeles facilities offering two customized Wavefront technologies: Wavefront Optimized (LASERWAVE) with the Allegretto Wave laser and Wavefront Guided (iLASIK) with the VISX Star S4 Custom Vue laser system. This is necessary because different laser systems give better results with different eyes. There is no one laser fits all scenario if you want optimal outcomes.

Wavefront LASIK makes it possible to achieve better than 20/20 vision, while reducing night vision, glare and contrast sensitivity problems.

Customized Wavefront LASIK treatment offers the most technologically advanced way to restore your vision.

The potential benefits of Wavefront LASIK include:

- Greater chance of achieving 20/20 vision
- Greater chance of achieving better than 20/20 vision
- Reduced chance of losing best-corrected vision
- Reduced chance of losing visual quality or contrast sensitivity
- Reduced chance of night vision disturbances and glare
- Increased ability to restore best-corrected vision if healing problems develop

How customized treatments work

The next revolution in Laser Vision Correction surgery are customized treatments, developing individualized software treatment plans for each patient, based upon the very unique shape and visual characteristics of that person's eye.

Wavefront LASIK involves creating a sophisticated corneal map of the eye and then combining that with an analysis of the visual system of the eye utilizing Wavefront technology.

Wavefront technology utilizes a visual Wavefront analyzer or aberrometer to study the way your eye bends light rays to improve your visual quality potential. This combined analysis is then applied directly to the cornea via the laser treatment.

Wavefront LASIK not only improves the potential for 20/20 vision, it has the potential to restore eyes to better than 20/20 vision.

The visual system is actually capable of seeing 20/10 or better, that is, letters that are twice as small as the 20/20 letters on an eye chart. Most people cannot see beyond 20/20 because of very subtle imperfections within their visual system.

Wavefront technology allows the surgeon to first map these subtle visual imperfections and then develop a laser treatment plan to correct them.

The first patients ever treated worldwide with Wavefront LASIK were in July 1999. Using Wavefront technology in European trials, a high percentage of patients treated with this procedure were able to achieve better than 20/20 vision, and even those that did not, still appreciated improvements in their night vision and contrast sensitivity. A significant number of patients in the United States FDA clinical trials for both the VISX CustomVue and Alcon's LadarVision CustomCornea System achieved better than 20/20 vision.

Wavefront analysis takes into account

- The curvature and smoothness of each cornea
- The thickness of the cornea
- Any astigmatism and the pattern of that astigmatism
- An individual's pupil size

Wavefront technology analyzes the entire visual system from the corneal surface through the crystalline lens of the eye, all the way back to the retina. It actually looks at the whole eye and the way in which the eye sees the world to develop a truly personalized laser treatment plan.

Wavefront analysis occurs across the entire 6mm optical center and represents a far more detailed assessment of the visual system, optimizing any imperfections to create the most ideal laser vision correction treatment pattern specific for that individual. Therefore, Wavefront technology not only provides more precise information for the treatment plan, but far more information than ever before across several hundred points within the central vision zone to be treated. When measurements are taken to determine visual acuity we use 1/4 Diopter steps and our measurements are dependant on the individual patient's subjective response. Wavefront measurements are more precise; it uses 1/100 Diopter steps and is independent of the patient's subjective response.

Dr. Rabinowitz is one of the very few surgeons in the world to be an investigator for the FDA clinical trials for Wavefront treatments. He is also one of the first and one of the most experienced LA IntraLase surgeons performing the all-laser LASIK procedure.