

## EYE-DEAS FOR THE FUTURE *New Technology*

The Eye Clinic of Texas, one of the leading LASIK providers in the Houston area, prides itself in offering our patients the most up-to-date laser technology available today. The Eye Clinic of Texas uses two types of technology for laser vision correction: the traditional technology, the Summit Apex broad beam laser and the newest technology, the Alcon/Summit/Autonomous LADARVision® System. The Summit Apex broad beam laser has been used successfully for ten years to correct vision problems. The Alcon/Summit/Autonomous LADARVision® System is the most advanced laser system available and uses a “spot beam laser” with an eye tracking system to maintain accurate placement of the laser beam during surgery.

Derived from technology developed for NASA’s Star Wars Strategic Defense Initiative, the LADARVision® System tracks the position of the eye during surgery at a rate of 4,000 times per second and can compensate for eye movement up to 300 times per second. It is recognized as one of the most advanced lasers available today.

“The Autonomous LADARVision® system offers patients a clear advantage over non-tracking lasers,” said Bernard Milstein, M.D., ophthalmologist and founder of The Eye Clinic of Texas. “Small beam lasers produce smoother surfaces, which seem to produce better visual results. For some patients, there may be no difference between the two lasers. It depends on the type and degree of the refractive error. We make



*Dr. Milstein prepares for LASIK surgery by creating a flap in the patient’s cornea.*

recommendations to our patients based on their individual needs.” Dr. Milstein, and his colleague, Daniel Gold, M.D., are no strangers to the world of excimer laser vision correction. In fact, they are often referred to as being among the pioneers of the procedure. Nearly a decade ago, Milstein and Gold were selected as two of 15 physicians in the country – and the only two from Texas – to participate in the initial clinical trials of laser vision correction using the Summit excimer laser technology. The results of that study helped secure FDA approval of the Summit excimer laser in October 1995, and established the safety and effectiveness of laser vision correction, now a widely accepted procedure throughout the entire country.

“When you come to The Eye Clinic of Texas to have your laser vision correction procedure, you are truly in the hands of experienced professionals,” Gold said. “We are proud of our history in getting excimer laser technology approved and honored to be able to offer that level of expertise to our patients.”

So, if you or someone you know is thinking about undergoing laser vision correction, you can be assured The Eye Clinic of Texas will be there to help you every step of the way.

*Dr. Gold completes LASIK surgery on the second eye using the Autonomous Laser with Ladarvision.*



### LOCATIONS TO SERVE YOU!

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Voice 409.765.6324  
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6409 Memorial Drive  
Texas City, Texas 77590  
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# HINDSIGHT FROM THE PAST

## History of Laser Vision Correction

Laser vision correction is the result of more than 70 years of research in ophthalmology. It began in the 1930s, when surgeons worldwide began researching and testing techniques that would eliminate the need for corrective aids. Researchers focused their studies on ways to reshape the cornea, the transparent tissue on the surface of the eye, since it is fundamental in refraction of light to the eye.

The renowned corneal surgeon, Jose Barraquer, M.D., was one of the first to begin research in this field. His intent was to reshape the corneal tissue by using a medical device similar in function to a lathe. A traditional lathe is a device that spins hard materials, such as wood or metal, against a fixed cutting tool in order to reshape them. Although his intentions were good, Barraquer's instruments were temperamental and not very reliable.

A few years later, Dr. Fyederove, a Russian ophthalmologist, completed additional research that would eventually evolve into laser vision correction. He perfected a procedure called Radial Keratotomy (RK), which involved making radial incisions in the cornea. This ultimately relaxed and flattened the central corneal surface and allowed the eye to become less myopic or nearsighted.

Computerized technology soon advanced ophthalmologic research. In the mid-1980s International Business Machines Corporation (IBM) patented the excimer laser, a cool-beam laser designed to break the molecular bonds of corneal tissue without causing scarring to the eye. Ophthalmologists discovered that nearsightedness, farsightedness or astigmatism could be corrected by reshaping the corneal tissue with the excimer laser. This procedure was called Photorefractive Keratectomy (PRK).

After several years of performing PRK, ophthalmologists moved forward in their research and combined Barraquer's research with PRK to create a more advanced procedure called Laser Assisted In-Situ Keratomileusis (LASIK). Similar to PRK, LASIK also uses an excimer laser to reshape the cornea. A tiny flap is made in the upper layer of the corneal tissue with a surgical instrument called a microkeratome. The flap is folded back and the laser is administered to sculpt the tissue. The flap is then smoothed back into place where it begins to heal. A large percentage of patients experience immediate improvement in their vision within 24 hours of the procedure.

As technology has progressed, The Eye Clinic of Texas has continuously updated its lasers. The surgeons are currently using the most advanced technology available – the Autonomous LADARVision® laser. The Autonomous uses a state-of-the-art "flying spot" beam laser with a high speed tracking system that monitors eye movement during surgery. The sophistication of the system allows greater accuracy and precision in placing the laser on the eye.

As always, the goal of the doctors and staff at The Eye Clinic of Texas is to offer patients the most advanced technology and eye care available today.



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## EYE OPENING RESULTS



"What a wonderful experience. No pain, no stress and great success, which I attribute totally and unequivocally to Dr. Milstein & his experience, the very best equipment and a friendly & knowledgeable staff. Truly, I can see now!"

-Jim Reinhartsen, president of the Clear Lake Area Economic Development Foundation

## SIGHTINGS STAFF MILESTONES

### JONI SCHIRMER CELEBRATES 15<sup>th</sup> YEAR AT THE EYE CLINIC OF TEXAS

The doctors at The Eye Clinic of Texas recently celebrated a significant milestone with one of their long-time employees. Joni Schirmer, administrator at The Eye Clinic of Texas, marked her 15<sup>th</sup> year of service with the well-known clinic.

Schirmer joined The Eye Clinic of Texas in 1985 as a receptionist. Over the years, she has helped build the clinic by working in accounts receivable. In her current position, she is responsible for overseeing the daily operations of three offices, two optical shops and a laser center.

"In today's society, it is very difficult to find the dedication and loyalty that Joni has demonstrated over the last 15 years," said Bernard A. Milstein, M.D., ophthalmologist and founder of The Eye Clinic of Texas. "She has played an important role in our overwhelming growth and success. We are proud to have her as part of our team."



From left to right: (back) Dr. Daniel H. Gold, M.D., Dr. Allan H. Fradkin, M.D., and Dr. Bernard A. Milstein, M.D.; (front) Joni Schirmer.