



# FOCUS ON LASER EYE SURGERY

by Marilyn K. Hauk

**T**he worst part of laser eye surgery for Gina Sparacino was following the doctor's post-operative orders: "Go home and sleep for four hours."

"A busy girl like me?" Sparacino remembers asking herself. A physician herself, she takes horseback riding lessons, works full time and maintains a fitness routine. "I couldn't imagine being still for four hours." She worked the morning before her afternoon surgery.

Afterward, her eyes felt watery and scratchy, but "within three hours I felt fine." But with a big difference: For the

first time in her 42 years, she could see clearly without the aid of corrective lenses.

"My vision is actually better after laser surgery than it ever was with glasses or contacts," says Sparacino, an MD anesthesiologist with a Des Moines group.

She went into surgery Nov. 3 at the Laser Center of Iowa with a vision of 20/400. The morning after surgery, her vision was 20/15, which is better than 20/20.

She says she could have gone back to work the next day, but she wanted to rest and let her eyes heal completely. Work-

ing in a medical setting, she didn't want to risk infection. However, most patients are able to return to work the next day.

But, Sparacino says, she doesn't want to trivialize the procedure. "I had been considering this for five or six years. I picked a surgeon known for great results and extensive experience."

Her motivation came when her glasses fell off during horseback riding lessons, and after years of enduring aches in her temples and across the bridge over her nose from wearing glasses all day.

"Pure vanity is not worth the risk of a complication," Sparacino says. "But with

all the reasons I had, it was totally worth the risk of the operation." However, she cautions, "There is always the remote possibility you could lose some vision."

## THE DIAGNOSIS

Her doctor, Dr. Ejaz Husain, MD, FACS, of the Associated Ophthalmologists, personally discusses the risks with his patients. He says that only careful, detailed evaluation can determine if a patient is a proper candidate for LASIK surgery. The physician has to determine if any underlying conditions would exclude a patient from

having the procedure.

In Sparacino's case, she underwent a two-hour examination. Her pupil size was measured in both light and dark conditions, and her corneal curvature was mapped with a computerized digital topography unit to rule out any underlying corneal diseases. The thickness of her cornea was also measured. Husain confirms measurements on all patients again, usually the morning of surgery.

Sparacino says her laser surgery was to correct nearsightedness and astigmatism, which is an unequal curvature of the cornea that leads to distortion. On the morning of surgery, after numbing drops and antibiotics were placed in her eyes, a state of the art flap maker was used to make a thin corneal flap, which folds back and allows the laser access to the corneal surface. Beams from a VISX STAR S4 laser removed microscopic layers of corneal tissue to change its shape according to her spec-

tacle correction, allowing light rays to focus more directly in her eyes.

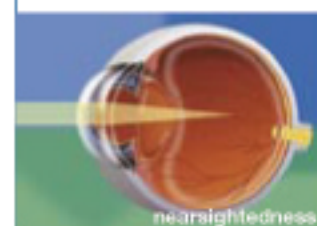
Although another technology for making the flap is available, using a femtosecond laser called IntraLase, Hussain says he prefers his current method, called a microkeratome, because that technology has undergone long-term rigorous and exhaustive testing. Also, "the visual recovery is faster and the inflammation is less."

On the other hand, Dr. Steve Johnson, M.D., of the Wolfe Clinic in Des Moines, says he's been quite pleased with the IntraLase, the flap-making laser he's used for more than a year. He says it avoids complications associated with use of the microkeratome and makes the procedure available to those with thinner corneas.

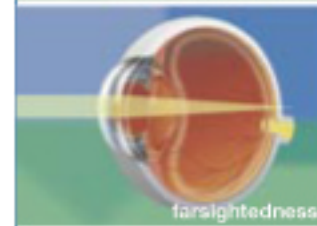
One thing they agree on: The laser vision correction technologies have made giant strides since the FDA first approved refractive eye surgery in 1995. And the latest technologies will allow

>> continued

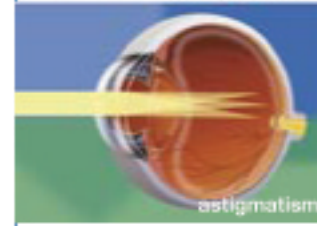
## refractive surgeries



nearsightedness



farsightedness



astigmatism

Laser eye surgery is a general term that actually encompasses different procedures all categorized as refractive eye surgery. Laser eye surgery is used to treat myopia (nearsightedness), hyperopia (farsightedness), and astigmatism (distortion due to unequal corneal curvature).

The most common type currently used is LASIK, an acronym for laser assisted in situ keratomileusis. A surgeon makes a flap in the superficial layers of the cornea and then a computer-controlled excimer laser removes microscopic layers of tissue under the flap and reshapes the cornea of the affected eye. The advantage is a quick visual recovery with minimal discomfort.

PRK, or photorefractive keratectomy, is another procedure that can also be used to treat the focusing problems of the eye. The advantage of PRK is that no flap is needed and the laser

directly treats the eye surface. This is the procedure of choice in a patient with a thin cornea when making a flap could potentially weaken the cornea. The disadvantage is that the visual recovery is a bit slower and there is some discomfort involved for the first few days. Long-term results are extremely good.

"IN THE FINAL ANALYSIS IT IS THE JUDGMENT, EXPERIENCE, ATTENTION TO DETAIL AND THE ETHICS OF THE SURGEON THAT DETERMINE THE BEST OUTCOME FOR THE PATIENT."

— DR. DR. EJAZ HUSAIN

physicians to establish a new standard for the measurement and correction of the unique imperfections in each individual's vision.

### THE NEXT WAVE

The latest technology approved by the FDA is known as wavefront and is actually an advanced diagnostic tool.

The wavefront systems, available from various companies, are more precise at mapping visual imperfections than the technology commonly used to prescribe eyeglasses and contact lenses.

Used in conjunction with current technology, "this provides a new level of precision and accuracy for optimizing each patient's vision based on their specific needs," says Dr. Husain. Johnson says, "We're trying to tailor the surgery to the individual cornea. Getting a more precise picture of the cornea will allow for more improved results."

Adapted from technology used to fix the distorted images from the Hubble

Space Telescope, wavefront sends a beam of light from a laser through the eye to the retina, according to the American Academy of Ophthalmology.

This light is reflected back through other parts of the eye, and a sensor measures the irregularities at the front of the wave of light as it emerges from the eye.

This produces a precise three-dimensional map of the eye's visual system, including the eye's imperfections or aberrations.

The wavefront data is used to program corrections into the surgical laser, which reshapes the cornea to correct refractive errors.

According to the academy, this new technology will allow surgeons to correct distortions in the visual system that cause glare and halos, and will improve the quality of vision in patients. However, Husain says not everyone will be a candidate for this technology. ■



## older eyes

If you find printed type getting smaller each year, don't throw away the reading glasses in hopes of a laser-surgery fix.

Dr. Steve Johnson, M.D., says the vision deterioration that comes with aging, known as presbyopia, "is actually a function of the lens inside the eye."

Laser vision treats imperfections of the corneal surface. Currently, the FDA has no approved LASIK procedure to treat presbyopia.

# Live Your Best Life with Your Personal Best Vision!



For More Information

[www.LaserEyeIowa.com](http://www.LaserEyeIowa.com)

A joint venture of Iowa Health - Des Moines and Mercy Medical Center - Des Moines

The Laser Eye Center of Iowa is proud to introduce **CustomVue**, the new standard in Laser Vision Correction. Using WaveFront diagnostic technology, our surgeons are able to measure the tiniest imperfections in your vision. This allows for a custom treatment plan for your LASIK procedure, which is tailored to your individual needs! For some, CustomVue can produce better vision than you currently have with glasses and contacts, **truly your Personal Best Vision**. To find out how you can benefit from this amazing technology, please call The Laser Eye Center of Iowa to schedule a no-charge screening and CustomVue consultation.

800.963.2025 515.244.8454



818 Fifth Avenue Des Moines, Iowa 50309