Clemson Eye News

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Quarterly Report for Health Care Professionals Delivering Eye Care

Welcome to Clemson Eye News

This newsletter is designed to help keep you up to date on developments in the care and treatment of eye diseases, and advances in eye surgery.

We may already partner with you in the co-management of some of your patients. If we do not, please allow me to introduce our practice.

Clemson Eye has served patients in the Upstate for more than 40 years through our full-service clinics in Greenville, Anderson, Easley, and Clemson, and a LASIK center, Spectrum Lasik, in Greenville.

The eye doctors at Clemson Eye include Drs. Brian Johnson, Donald Glaser, Leroy Howard, Buddy Thompson, Nancy Mahlie, Eric Brown and I.

Together, we have more than 100 years of ophthalmic experience and have performed more than 50,000 cataract, microsurgical and LASIK procedures.

Be sure to let me know if you find *Clemson Eye News* helpful or if there are any topics you would find particularly interesting for future issues.

Dr. Joe Parisi
Clemson Eye

Laser Vision Correction Today

By Dr. Joseph Parisi

Today, two vision correction procedures are performed using the excimer laser: LASIK and PRK. Both procedures can achieve the same results for patients wishing to correct nearsightedness, farsightedness and astigmatism, but they employ different methods.

LASIK (Laser Assisted In-situ Keratomileusis) had its genesis in the early 1990s as a vision-enhancing procedure combining a traditional kerato-refractive procedure with the unprecedented precision of the excimer laser.

Speed and precision of the femtosecond laser

Here a protective corneal flap is cut and temporarily folded back to expose the inner corneal tissue. Ultra-fast femtosecond lasers are rapidly replacing traditional bladed microkeratomes for flap creation. Precise computer-controlled pulses of light are then applied to the inner layers of the cornea to remove and reshape the tissue. The flap is then gently replaced and heals naturally and securely.

The excimer laser was developed by 3M Corporation as a cutting tool in the computer chip manufacturing process. It was first appropriated for ophthalmic use in the mid-1980s to reshape the corneal surface and produce a change in the eye's refractive power in the PRK (Photo-refractive Keratectomy) procedure.

PRK, or what is now commonly known as ASA (Advanced Surface Ablation) is generally recommended for patients with thin corneas where preservation of tissue is necessary. In PRK, the laser energy is directly applied to the corneal surface to remove and reshape the tissue (after epithelial removal). Instead of a corneal flap, a bandage contact lens is placed over the cornea for an average of three days to improve comfort and aid in re-epithelialization.

Improvements for PRK patients

Haze formation in the superficial layers of the corneal stroma has always been a concern with PRK because it can lead to reduced acuity. The use of anti-inflammatory (steroids) and anti-metabolite (mitomycin-C) medications has been instrumental in reducing the incidence of haze and scarring for PRK patients.

LASIK and PRK are both safe, effective laser procedures. Most doctors and patients, however, prefer LASIK because the surface layers and epithelium are preserved. As a result, most LASIK patients see well the day following their procedure. PRK patients require about three days for the epithelium to heal. For PRK patients, full recovery of vision is more gradual requiring anti-inflammatory eye drops for several weeks to months.

The technology

Excimer laser technology has improved tremendously over the past 25 years, allowing for faster ablation times, better tracking of eye movement to keep ablations centered, larger effective optical zones, and smoother transition zones to the periphery. Broad beam laser profiles have evolved to small 'flying spot' patterns to allow cooling between laser spot applications.

Arguably the most significant improvements have come with the introduction of Wavefront Optimized (WFO) and Wavefront Guided (WFG) technology, which take into account higher order aberrations of the cornea and optical system to provide improved visual outcomes.

More recently, Topography Guided (TG) LASIK with the Alcon WaveLight® laser has received FDA approval. This innovation will expand the indications for laser vision correction by customizing treatment to patients with corneal irregularities.

Clemson Eye is proud to have the most advanced laser refractive system available. The Wave-Light® Refractive Suite is the fastest refractive surgery platform available in the U.S. It operates at 500 Hz, with an average treatment time of 1.4 seconds per diopter.[1] It is the only system capable of offering WFO, WFG and TG procedures.

Our FS200 femtosecond laser, the fastest on the market, is capable of cutting a flap in as little as six seconds.[2] Quite remarkable.

Insurance and financing

Laser vision correction consultations are free at Clemson Eye. LASIK and PRK are eligible for tax-free Health Savings and Flexible Spending Account funding.

Most insurance companies do not cover LASIK and PRK, but we offer patients contractual discounts since we are providers for most health plans. In some cases, the procedures may be tax deductible, depending on the patient's filing status.

In addition, Clemson Eye offers flexible financing options, including 24-month, 0% financing. All of which can make Lasik an affordable option for patients who want freedom from dependence on eyeglasses and contact lenses.

Dr. Joe Parisi is Chief Ophthalmologist and Medical Director at Clemson Eye.

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1. Alcon Surgical Data on file (http://www.alconsurgical.com/Wavelight-EX500-Excimer-Laser.aspx).

2. Mrochen M, Wüllner C, Krause J, Klafke M, Donitzky C, Seiler T. Technical aspects of the WaveLight FS200 Femtosecond Laser. *Journal of Refractive Surgery*. 2010;26(10):S833-S840.

What's New

Clemson Eye gives Upstate residents the opportunity to **Win Free Lasik** every quarter. If you have patients who might be interested, please direct them to www.spectrumlasik.com, where they can enter the draw online.

This past summer we decided to take a slightly different tact, and run the **"Cycle into Free Lasik!"** contest. The idea was to educate people about

Kristen Weinacker, Spectrum Lasik patient, local nurse and competitive cyclist, was the face of our recent Cycle into Free Lasik! Contest.

the importance of fitness to eye health and highlight the fantastic network of cycling trails we have in this area.

Entrants wrote a brief story on why they love cycling in the Upstate. Working with the contest judge, local cycling celebrity George Hincapie, we selected the top stories, and opened them to public voting.

Former serviceman and dedicated triathlete, Travis Peacock, won. And he is truly delighted with the results. On Facebook, he recently said:

"Thank so much for making the LASIK happen! The next day after surgery all is well and vision is good. This is going to be a huge blessing come next race season. Y'all rock!"
– Travis Peacock

With the improvements in the procedure and technology, it is truly gratifying to be able provide Lasik patients with such excellent visual outcomes.

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