

Clemson Eye News

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Quarterly Report for Health Care Professionals Delivering Eye Care

Bill Ellis Is Loving His Lasik



Bill Ellis, on-air personality at Greenville's WSSL-FM and nominee for CMA Personality of the Year, recently had laser vision correction at Spectrum Lasik. His results were a remarkable 20/15 and he couldn't be happier.

Bill says, "Thank You!!! This is one of the BEST decisions I've ever made!! Everyone I see (clearly) is asking me about Spectrum Lasik! You're getting a GREAT review from this very happy guy!"

Spectrum Lasik, a Clemson Eye Company, offers Lasik patients the most advanced technology, experience they can trust, and fees and financing they can afford.

The Greatest
Lasik Value
in South Carolina



Cassini Measures True, Total Astigmatism



By *Brian Johnson, MD*

The demands of today's cataract patients have greatly increased, with the expectation of perfect vision after a refractive cataract procedure. With the Cassini as part of our diagnostic and planning workflow, Clemson Eye is better able to meet those expectations.

More than 37 percent of cataract patients have a high level of astigmatism that is amenable to correction by a Toric intraocular lens (IOL) implant at the time of cataract surgery. This type of refractive cataract surgery makes it possible to achieve a higher level of spectacle independency.

Two traditional challenges of this type of refractive cataract surgery are accuracy of the corneal axis measurement and test repeatability. Fortunately, those two challenges have been addressed by the new Cassini corneal topographer.

The Cassini is a first-of-its-kind Corneal Shape Analyzer based on Color LED Technology. It measures the true axis and magnitude of corneal astigmatism, which provides further support to premium cataract surgical intraocular lens planning.

Clemson Eye is proud to be one of the first ophthalmology practices in the

world to offer this revolutionary new technology to patients.

Anterior and posterior measurement

The Cassini was approved for commercial use in November 2014. It uses patented color point-to-point LED technology to provide a measurement and map of the anterior and posterior cornea. Previous clinical studies have demonstrated that posterior corneal astigmatism can be a factor in generating unexpected post-operative outcomes.¹ The Cassini can also map highly irregular corneas, such as post-Lasik and even keratoconic eyes.

For us at Clemson Eye, the Cassini has proven valuable in providing accurate and repeatable data for planning Toric IOL implants. It is also useful in managing lower levels of astigmatism in conjunction with laser-assisted cataract surgery and in multifocal intraocular lens implants. Through this total cornea measurement capability, we have critical information to properly select the power and position of Toric IOLs, and plan for arcuate and limbal relaxing incisions with the LenSx laser system. The improved surgical planning process



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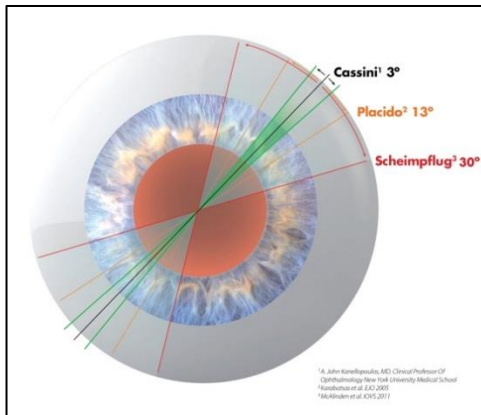
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results in better visual outcomes for patients. It allows us to fine-tune our plans when correcting astigmatism and minimize refractive surprises.

Legacy cornea measurement systems

Without the Cassini, eye surgeons must depend on multiple corneal measurement systems to approximate the detailed and accurate data the Cassini test provides. Typically, with commonly used Placido ring-based systems there are challenges with measuring irregular corneas that can lead to inconsistent data.

With the Scheimpflug system, there are repeatability challenges because extended scanning time can lead to motion artifacts, distortion and blurring of data. Cassini solves both challenges in terms of accuracy, speed and precision.



The challenge of determining the exact axis of astigmatism for cataract surgery: Cassini has a considerably better degree of accuracy.

Axis and magnitude of astigmatism

The Cassini is all about true axis with repeatability. Studies show an impressive repeatability of below three degrees² in steep cases. With the Placido ring-based system's reported 15 percent error rate and Scheimpflug's error rate



Clemson Eye Clinical Manager, Lisa Moore, with cataract patient undergoing the Cassini test.

of up to 30 percent, a patient could lose up to 50 percent of the Toric power when the lens is implanted. With the Cassini we have superior measurement, and as a result superior outcomes.

Why is this important? Currently, there are 3.5 million cataract procedures done annually in the United States. Less than 10 percent of eligible patients opt for some level of astigmatism correction during their cataract surgery. The opportunity to have fully corrected vision post-cataract surgery, regardless of age, is a highly attractive option for patients who want the quality of life that excellent vision brings.

The Cassini has brought us a significant step further in evaluating the true total astigmatism of each cataract patient's eye and providing them with optimal correction during cataract surgery.

**Brian Johnson, MD, is a
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1. Koch DD, Ali SF, Weikert MP, Shirayama M, Jenkins R, Wang L. Contribution of posterior corneal astigmatism to total corneal astigmatism. J Cataract Refract Surg. 2012 Dec;38(12):2080-7.
2. Kanellopoulos AJ, Asimellis G, Friess DW. The Clinical Impact of Color LED Topographic Variability Analysis. CRS Today, April 2014.

What's New

Clemson Eye has broken ground for our new facility in Greenville. The beautiful new medical and surgical center will consolidate our current Greenville clinic and Spectrum Lasik facility.

With the new center, we will expand our medical and surgical facilities. The 18,500-square-foot facility will have state-of-the-art treatment rooms, a surgical suite, a Lasik suite, a pediatric wing and a medical aesthetics suite.

The Regency style building will reflect a simple, clean elegance. It is designed to complement the traditional architecture of the neighborhood surrounding it.

The lot is well-situated on one of the most central, high visibility points of Greenville, half way between our two existing eye care clinics. Our Lasik suite on the second floor has a fantastic view of the Blue Ridge Mountains. Patients will sit up after laser vision correction and open their eyes to a clear beautiful mountain panorama.

The two-plus acres are located on the original 1827 Lowdes Plantation at the corner of Pelham Road and Villa Road.

We are very excited about our new center and look forward to better serving our referral network of doctors and patients there. Our targeted completion date is fall 2015, when we will also consolidate the Spectrum Lasik name into the single "Clemson Eye" name and brand.



Architectural drawing of new Greenville center.