



ORange Predictability Study Being Conducted at TLEC



WALTHAM, MA—Talamo Laser Eye Consultants is participating in a multi-center, prospective evaluation of Aphakic IOL power calculation utilizing the ORange intraoperative wavefront aberrometer performed in eyes undergoing cataract surgery or refractive lens exchange that have undergone previous Lasik or PRK.

WaveTec Vision Systems, Inc. has developed the ORange intraoperative wavefront aberrometer for use in assessing optical aberrations.

Aberrometers are non-invasive, non-contact, diagnostic devices that have been classified by the FDA as Class-I, non-significant risk devices.

ORange is a sophisticated device used to provide real time measurements of the patient's eye and allow the surgeon to obtain an unprecedented new level of valuable information about the refractive state of a patient's eye during surgery. The surgeon can easily take measurements at various stages of the operation, which are immediately analyzed. ORange then provides specific information which optimizes the IOL decision-making process in the surgical suite.

The purpose of this study is to evaluate the efficacy of the ORange aberrometer in patients undergoing cataract surgery after prior refractive surgery.

The ORange aberrometer provides valuable information for determination of spherical IOL power. For patients who have astigmatism, ORange may improve the accuracy of the correction by guiding the rotational positioning of Toric IOLs to improve postoperative uncorrected visual acuity.

To learn more about ORange technology, visit www.operatieorange.com.

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An Update on Corneal-Collagen Cross-Linking

May 2011— The last three months Talamo Laser Eye Consultants has been participating in the FDA approved clinical trials for Corneal Collagen Cross-Linking (C3R). What C3R does is strengthen the cornea by allowing it to form new biochemical bonds between and within connective tissue fibers, thus stopping progression of keratoconus.

Studies have shown that cross-linking prevents further vision loss in more than 90% of those treated, with 60%

to 70% of patients experiencing improved vision, according to an article in the March 2010 issue of *Advanced Ocular Care*; "Answering Your Patients' Questions About Cross-Linking" by Roy. S. Rubinfeld, MD; William B. Trattler, MD and Neil F. Martin, MD.

The effects of C3R continue to endure month after month, with results improving and changing over time. Postoperative measurements are showing that at 6, 12, and 18 months, the corneal pe-

riphery continues to thicken while the center does as well but not as much, producing an overall flattening effect of the cornea. Some patients can become myopic after C3R and will experience worse UCVA in the early period after surgery which may last up to 1 to 2 years. After 2 years, therapeutic refractive intervention might be necessary in some patients.

There has been much discussion whether epithelium-on or epithelium-off is more effect-

ive. Those who promote epi-off will argue that the epithelium blocks UV light-going into the cornea, rendering the treatment less effective.

Whereas increased astigmatism and corneal haze has been observed in some patients following epi-off C3R technique, the primary goal of those who prefer to leave the epithelium intact is to maintain as much live epithelium as possible. Epi-on C3R seems to promote

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faster visual recovery and has a lower risk of infection or scarring.

As a result of the epithelium-on verses epithelium-off debate, several variations of epithelium management have been adapted for C3R. Some surgeons utilize a disruptive device to create pockmarks in the epithelium whereas other centers will roughen the epithelium with the use of a riboflavin soaked sponge. Regardless of the methodol-

ogy preferred the ultimate objective is to promote Riboflavin penetration needed to allow corneal stiffening after exposure to UV light.

The most important effect of C3R is to stop the progression of keratoconus and avoid the need for corneal transplant surgery. Based on C3R results over more than a decade, the beneficial effects appear to last for many years and the evidence suggests that the strengthening effects are permanent.

Because C3R is under evaluation through the US Food and Drug Administration (FDA) sanctioned trials, it is still considered investigational in the U.S., so patients have limited access. Through our research study, we are able to provide this investigational treatment to residents throughout New England.

To learn more about Cross-Linking, visit our website at www.lasikofboston.com or CXLUSA.com.



STEP 1: Riboflavin Load



STEP 2: UVA Light Therapy

Dr. Hatch Revolutionizes Corneal Transplants at TLEC Utilizing IEK

May 2011 - Dr. Hatch performs Intralase Enabled Keratoplasty (IEK), a revolutionary new technique for corneal transplant surgery. IEK brings together refractive surgery and corneal transplant surgery, making exceptional results more accessible than ever before.

The IEK procedure is different than conventional cornea transplant surgery because of the use of the Intralase Excimer laser. IEK is a breakthrough technology because the donor and recipient are

prepared in a similar fashion with the precise Intralase Laser, so the donor corneas fit almost perfectly into the recipient's eye. The higher accuracy of fitting lowers the chances of astigmatism and increases the chances of faster recovery.

Initially the patient undergoes extensive corneal mapping as part of their comprehensive evaluation to determine the need for corneal transplant surgery. On the day of the procedure, Dr. Hatch created the precise shape of the

donor and recipient tissues with the Intralase laser at TLEC. The procedure is then completed by Dr. Hatch at a nearby outpatient surgical center where the donor and the recipient corneas are sutured together.

The primary advantage of incorporating Intralase technology into this procedure is to individually customize the incisions to each patient as determined by the surgeon. Furthermore, this approach results in faster and stronger wound healing, producing

superior visual results.

To learn more about this and other exciting new corneal transplant technologies, log onto our website at www.lasikofboston.com and select the link for Corneal Conditions.

WHILE OUR PATIENTS ARE BUSY APPLYING SPF200 TO THEIR CHILD, WE NEED TO MAKE SURE THEY ARE BEING AS MINDFUL OF THEIR CHILDREN'S EYES. FASHIONABLE CHILDRENS SUNGLASSES CAN BE A CHILDS BEST ACCESSORY!

Important Tips for Choosing Sunglasses

It is that time of year again when we must remind our patients that it is equally important to protect their eyes and their children's eyes from the damaging effects of the sun.

Exposure to sunlight increases the risk of an assortment of eye-related ailments including cancer, cataracts, retinal problems and unappealing lesions or tumors that could

require surgical removal.

Sunglasses should be worn whenever outdoors and especially in early afternoon and higher altitudes. The sun can easily pass through haze as it can travel on a clear sunny day.

The ability to block UV light is not dependent on how dark the sunglasses are but how much UV protection

they contain. A wrap around style that contains 100 percent UV filtration so that the sun rays can't enter from the side is the best recommended *sunblock*.

