

REFRACTIVE SURGERY NEWS

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NEW TECHNIQUE (RE)DISCOVERED— ADVANCED SURFACE ABLATION

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INSIDE THIS ISSUE:

GETTING TO
KNOW DR. SHER 2

PATIENT
STORIES 3

WHAT TO
EXPECT DURING
A REFRACTIVE
SURGERY
EVALUATION 4

Improve your NearVision

1. Are you 45 years or older?
2. Do you have good distance vision?
3. Do you dislike wearing reading glasses?

If so, you may benefit from NearVision™ CK®.

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Sometimes the old way is the best way: with advanced surface ablation, it is also the new way. PRK, a method of surface ablation and the first FDA-approved method of laser vision correction, has become much more widespread recently. The latest advances in laser vision correction technology are creating more interest in advanced surface ablation procedures.

Surface ablation refers to the practice of applying the excimer laser immediately underneath the surface cell layer of the eye (epithelium), rather than under a thin flap of corneal tissue as is done in LASIK. ASA (advanced surface ablation) may now be combined with the use of Wavefront-guided laser vision correction techniques.

In surface ablation, the epithelium, or surface layer of corneal cells, has to be removed in order to reach the stromal layer of the cornea.

There are several ways in which this layer can be removed. In traditional PRK, it is mechanically removed, usually with a surgical brush, or with transepithelial PRK (also called "No Touch") the epithelium is ablated away with the same laser that is used to achieve the vision correction. There are also two related ASA procedures, Epi-LASIK and LASEK (not to be confused with LASIK). Epi-LASIK uses a mechanical device to separate the epithelium. I will be performing this promising new technique soon and determine if it has any advantage over other methods.

I have been performing surface ablation procedures since 1989, as a participant in the earliest clinical trials of the excimer laser for laser vision correction. As with other technology, a great number of improvements have been made over the last decade, and PRK

is currently being regularly performed with excellent visual results. The number of PRK procedures performed in the US and elsewhere diminished after the introduction of the LASIK procedure in 1996, but over the last several years, due to significant advances in technology and medications which control the healing process, surface ablation techniques (ASA) are again gaining in popularity.

Surface ablation techniques are continually evolving in order to achieve faster visual recovery and less discomfort for the patient.

Even so, ASA procedures do have a somewhat slower visual recovery than LASIK.

The decision of which technique to offer, ASA or LASIK, to patients qualified for laser vision correction, involves the consideration of numerous factors. These include

Continued on page 2

BREAKTHROUGH IN NEAR-VISION CORRECTION: LIGHT-TOUCH CK®

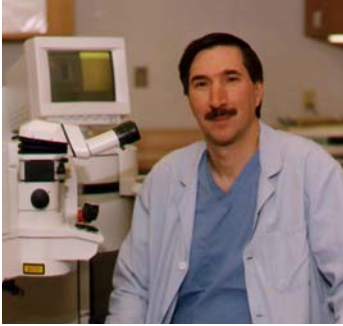
By the age of 45, most of us have trouble focusing on near or small items, such as cell phones, price tags, and menus in dimly lit restaurants. This occurs due to the natural aging and stiffening of the crystalline lens of the eye, which becomes less flexible as we age. This

condition is called presbyopia (aging eyes). Eyeglasses, reading or bifocal, or contact lenses were the only treatment. Several years ago, after a number of years of development, Conductive Keratoplasty (CK) was approved for the treatment of presbyopia.

There are no scalpels, lasers or cutting involved in CK. Treatment is achieved with a surgical "pen" with a very thin microfilament that your doctor inserts into the peripheral cornea (the clear, outer covering) of your eye.

Continued on page 3

GETTING TO KNOW DR. SHER

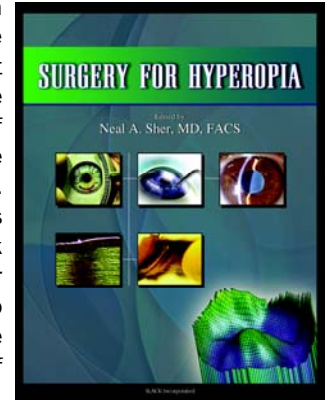


A native of New York, Dr. Sher received his M.D. with honors from Boston University School of Medicine at the age of 22. He then moved to Minneapolis, Minnesota, to train in pediatrics at the University of Minnesota Hospitals. After his internship, he entered the U.S. Public Health Service in 1972 as a commissioned officer and became a Staff Associate at the National Institutes of Health (NIH). Dr. Sher spent the next

three years at the NIH in Bethesda, Maryland, performing tumor immunology research. At that time he became interested in ocular immunology and in 1975 entered ophthalmology residency at the University of Minnesota. This was followed by corneal and external disease fellowship training at Moorfields Eye Hospital at the University of London. Returning to Minneapolis in 1979, he entered private practice and in 1984 was one of the founding members of the Phillips Eye Institute, a renowned specialty eye hospital where he also has served as Chief of Ophthalmology. Dr. Sher is an internationally recognized refractive expert who has focused the past 16 years on laser refractive surgery and has performed thousands of laser

vision correction procedures. He is a member of the American Academy of Ophthalmology, the American Society of Cataract and Refractive Surgery, the International Society of Refractive Surgery and the American College of Surgeons. He has written numerous scientific articles and textbook chapters on excimer laser surgery, and he authored two textbooks devoted to the refractive surgery of farsightedness and presbyopia. An active lecturer, Dr. Sher teaches other surgeons here and internationally. He is also a consultant for a number of companies in the refractive field.

He and his wife have two adult daughters. His hobbies include photography, gardening, and movies.



Dr. Sher's second textbook on hyperopia surgery published in 2003.

NEW TECHNIQUE (RE) DISCOVERED ADVANCED SURFACE ABLATION (ASA) - CONTINUED

anatomical considerations, such as corneal thickness and curvatures, amount of correction, the presence of significant dry eye, as well as the patient's occupational and recreational needs. For instance, the US Navy currently accepts PRK to meet vision requirements for all naval aviation, including the most advanced fighters.

Most branches of the Armed Forces do not allow, or restrict, LASIK for service personnel, but do allow ASA laser treatment. More recently, I have been using Wavefront analysis or custom ablation with advanced surface ablation on selected patients. Eye Care Associates has the VISX CustomVue Wavefront analyzer, which works by projecting a series of

small light beams into the eye and measures the images that return to it after the light is reflected off the retina. It analyzes the minute distortions that change the light beam's pathway as it travels through the various layers of the eye. Because every patient has a unique visual system, the Wavefront image is as individual as a fingerprint.

Employing the Wavefront analyzer as an additional specialized tool, I am now able to use the Wavefront maps to plan a customized laser treatment, either LASIK or ASA, utilizing the VISX S4 excimer laser at the Phillips Eye Institute.

With over 14 years of follow up,

the long term safety and stability of surface ablation have been proven. There are now several studies of long term ASA that show excellent safety, stability of the correction (no regression), and the absence of long-term side effects. Studies presented at the recent meeting of the American Society for Cataract and Refractive Surgery (ASCRS) in April 2005 also indicated that the results of wavefront guided ASA are the same as, or may even be slightly better than, wavefront guided LASIK. In 2005, I estimate that the majority of my laser vision correction procedures will utilize ASA and the remainder will be LASIK.

"In 2005, I estimate that the majority of my laser vision correction procedures will utilize ASA and the remainder will be LASIK."



VISX® Wavescan Analyzer

HAPPY PATIENTS!!!

Unbelievable Care...

"I have been looking for a card appropriate for you, to show my gratitude for the unbelievable care I received from you regarding my eye(s) surgery, and the outstanding follow-up you have given me. You are a perfectionist! I have referred three patients to you whom have all had success stories to tell! You get what you pay for-I have only one set of eyes and you are the only doctor I trust enough to take care of them. No one can really explain the meaning of and feeling of sight when you've had to wear glasses since the age of 8 and at 50 you can truly open your eyes and see! What a gift from the master eye surgeon! I thank you from the bottom of my heart." ~ Sue

The Sky's the limit...

"I just wanted to pass on my thank you to everyone at Dr. Sher's office. I had PRK surgery in the summer of 2002 in the hopes of making it possible for me to get a pilot's slot in the United States Air Force. Just last week, I got my slot and it would not have been possible without the surgery. Thanks!" ~ Chris

Technical Miracle...

"Thank you for the gift of my perfect eyesight! Not only are you excellent in the technical miracle of restoring sight, your compassion and will to do what is best for your patients is stellar."
~ Collette

BREAKTHROUGH IN NEAR-VISION CORRECTION: LIGHT-TOUCH CK® - CONTINUED

The probe transmits radio frequency waves, which produce small areas of heating and collagen contraction within the peripheral cornea. This tightens the collagen in a ring in the outer cornea. This is analogous to tightening a belt, which increases the corneal curvature and allows your eye to focus light from near objects. CK can lessen your dependence on reading glasses for many of these tasks, and restore much of your near vision. The procedure is done with a drop of topical anesthetic and takes only five minutes. There is minimal discomfort for the first few days after the CK procedure. Typically, antibiotic and anti-inflammatory eye drops are used in the first week.

CK has now been modified to make it a more useful procedure. Recent clinical

experience in the U.S. and overseas shows that a slight variation in CK technique, known as "Light Touch", is even more effective at treating near vision problems brought on by "aging eyes". "Light Touch" refers to the slight amount of pressure the surgeon applies to the small probe which delivers the radio frequency energy. Studies have shown that with the Light Touch CK procedure, less treatment can have more effect for a greater range of patients, with less discomfort and quicker healing time. For example, rather than applying two circles of 8 applications to the cornea, one circle of 8 will give the same effect. Surgeons have seen a greater level of correction and an increase of effect with a small variation of the procedure. Conductive Keratoplasty has always

been a less invasive procedure for vision correction than LASIK or PRK, as it does not involve cutting, lasers, or treatment in the visual axis. With the Light Touch variation, it is safer and more comfortable. Unlike laser vision correction procedures, CK regresses slightly each year and is not considered permanent. The effect may regress in 5-7 years. It can possibly be repeated, if necessary. The best candidates for CK are individuals who are age 45 or older and have good distance vision, but now have problems with reading and other near tasks. If you are interested in receiving more information about Conductive Keratoplasty (CK), or would like to make an appointment to see if you are a candidate, please call Nancy Read at 612-338-4861 or visit our website, www.drsher.com

Eye Care Associates, PA

Appointment Line:

612-338-4861 or

1-888-448-3177

Clinic Hours:

Monday thru Friday

8:00 am—5:00 pm



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on reading
glasses for
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E Y E C A R E E X C E L L E N C E

WHAT TO EXPECT DURING A REFRACTIVE SURGERY EVALUATION

What are your expectations and goals in seeking laser vision correction? At a refractive surgery evaluation, a patient will undergo a comprehensive exam to evaluate their medical history, ophthalmic history and goals. The following tests will be performed:

- Measurement of vision with and without glasses and contacts.
- Determination of eyeglass prescription.
- Specialized testing of pupil size, corneal mapping and corneal thickness measurements.
- Wavefront analysis with the VISX CustomVue™ Wavescan® analyzer.
- Tear production measurement, if needed.
- A complete eye exam, including dilation of the pupils, retinal examination and glaucoma testing.

After the exam, the patient will enjoy a personal in-depth discussion with the doctor. Possible vision correction procedures, such as LASIK, surface ablation, and CK will be thoroughly explained. The benefits, risks, and alternative treatments will be talked about in detail, as well as the expected outcome. The patient will have an opportunity for all questions and concerns to be answered. These evaluations take at least two hours. A relative or friend is welcome to join you in our office for the exam and discussion.



Refractive Surgery Evaluations are very thorough and last about two hours.