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Glaucoma
Cataracts
Diabetic Eye Disease
Laser Surgery

Laser Vision Correction

To date, Laser Vision Correction has received extensive media coverage. The purpose of this document is to educate you with straightforward facts regarding Laser Vision Correction and the different options that exist. Please read this material carefully and discuss any questions you may have with Dr. Baharozian or his knowledgeable ophthalmic technicians.

Laser Vision Correction consists of two different procedures that use a computerized laser to correct a person's refractive error. A refractive error may consist of nearsightedness (myopia), farsightedness (hyperopia) and/or astigmatism. These procedures are PhotoRefractive Keratectomy (PRK) and Laser Assisted In Situ Keratomileusis (LASIK). Laser Vision Correction has been performed for over 12 years.

Both procedures are performed on a person's cornea using the same excimer laser. The cornea is the clear tissue in the front of a person's eye. The cornea is responsible for two thirds of the focusing process performed by the human eye.

The fashion in which the cornea is reshaped is slightly different with each technique. A general overview including advantages and disadvantages of each procedure are described below.

PRK **(PhotoRefractive Keratectomy)**

PRK is the original procedure performed using the excimer laser in order to achieve Laser Vision Correction. PRK corrects a person's vision by reshaping the surface of the cornea. When performing PRK, a speculum is used to hold open a person's eyelids. The surface layer of the cornea (the epithelium) is removed with a rotating brush or with a dilute solution of alcohol. The surface layer immediately below the epithelium is then reshaped using the computerized excimer laser**. Acting as a bandage, a clear contact lens is placed over the reshaped cornea for comfort and protection. The entire procedure is done under topical anesthesia (numbing eye drops) and is painless. PRK takes roughly 10 minutes to perform on each eye.

PRK is an outstanding procedure for those patients who qualify. When compared to LASIK, PRK has both advantages and disadvantages. For instance, PRK is less invasive than LASIK because the procedure is performed on the surface layers of the cornea. It is not necessary to create a corneal flap thus eliminating all potential flap complications associated with LASIK.

On the other hand, the immediate post-operative recovery period can be fairly uncomfortable for some PRK patients. Healing of the top layer of cells (the epithelium) usually takes 3 to 5 days. During the recovery period, topical drops and oral pain medication may be needed to reduce whatever pain or discomfort a patient may experience. The vision in a PRK patient is hazy for anywhere between 3 to 7 days after which it steadily clears. After roughly 10 days, the vision should be quite clear.

**Mitomycin C, an anti-metabolite medication, may be applied to the corneal surface immediately following the actual laser treatment. This medicine greatly reduces the chance of developing post-operative stromal haze in patients who have higher levels of nearsightedness or farsightedness.

BLADELESS LASIK **(Laser Assisted In Situ Keratomileusis)**

LASIK is a procedure that combines the previously developed technique of lamellar refractive surgery with new excimer laser technology. LASIK utilizes the same computerized excimer laser as PRK but treats a slightly deeper layer of the cornea known as the stroma. First, a suction ring is applied to the eye in order to elevate the internal pressure of the eye as well as to immobilize the eye. Next, an ultra-short pulsed laser known as Intralase® (www.intralase.com) is used to create a thin corneal flap. This technique of making the corneal flap is known as "**bladeless**". (The corneal flap can also be created with a mechanized instrument utilizing a metal blade known as a microkeratome. At the time of this writing, roughly 3 out of 4 eye surgeons still create the corneal flap with this older technique of using a microkeratome.) Simply put, utilizing the Intralase® bladeless technique is the safest and most accurate way of creating a corneal flap. The suction ring is then removed and a speculum is inserted to hold open a person's eyelids. The hinged flap is now lifted and folded back superiorly. Laser Vision Correction is then performed on the underlying corneal bed. After this tissue is reshaped, the corneal flap is placed back down over the treated area in its proper, original position.

The corneal flap seals itself quickly to the underlying corneal bed. The entire procedure is performed under topical anesthesia (numbing eye drops) and is painless. LASIK takes roughly 20 minutes to perform on each eye.

LASIK is an outstanding procedure for those who qualify. LASIK is usually the procedure of choice on patients who have high levels of nearsightedness (myopia). When compared to PRK, LASIK has both advantages and disadvantages. For instance, a patient who undergoes LASIK usually experiences rapid improvement in his or her vision (i.e. the next day). Also, a LASIK patient experiences minimal discomfort if any during the healing process. On the other hand, the risks of LASIK are slightly higher than those of PRK. Although meticulous attention is paid to surgical techniques, rare complications



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may occur during the creation of the flap or during the healing phase. The overall rate of a serious complication for LASIK is roughly 0.5% and for PRK is less than 0.5%.

It is very important that all LASIK patients be very careful not to accidentally dislodge the flap during the first two weeks of the healing process. This includes eliminating some physical activities (i.e. all contact and ball sports, swimming, horseplay, etc.). In addition, protective clear plastic shields must be taped over the eyes when sleeping for at least one week.

LASER CENTER DELIVERY SYSTEM

Dwayne B. Baharozian, MD has performed over 1500 Laser Vision Correction procedures. He operates in Waltham at Talamo Laser Eye Consultants using the Intralase® laser (www.intralase.com) and Allegretto WaveLight® Eye-Q Laser (<http://www.reclaimyourvision.com>). These are the most technologically advanced lasers in the world today used for Laser Vision Correction.

WAVEFRONT OptiLASIK®

OptiLASIK® (optimized wavefront ablation) is an advanced Laser Vision Correction procedure that actually adapts to the unique curvature of the human eye. Unlike earlier LASIK procedures that reshaped the human cornea without taking into consideration the natural curvature, **OptiLASIK®** reshapes the cornea more closely to an ideal, natural shape. As a result, **OptiLASIK®** can help preserve or improve the quality of one's vision. **OptiLASIK®** is performed using the technologically advanced WaveLight® Allegretto Wave® Eye-Q Laser which combines speed, precision and simplicity to achieve outstanding results. For more information, please visit the website, <http://www.reclaimyourvision.com/optilasik-laser-correction.aspx>.

The facts about **OptiLASIK®** Laser Vision Correction with WaveLight® technology:

- 93% of nearsighted patients see 20/20 or better
- 83% of farsighted patients see 20/25 or better
- 92% of patients described their vision as "good" or "excellent"
- Do you think 20/20 vision is impressive? ¾ of nearsighted patients actually see better than 20/20!



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SCHEDULING A LASER VISION CORRECTION CONSULTATION

To have more of your questions answered and to determine if you would benefit from Laser Vision Correction, a complimentary consultation can be scheduled with our Refractive Surgical Coordinator. If you are not a patient of The Family Eye Care Center, recent medical records regarding your refractive error (eyeglass prescription), a current pair of glasses or an unopened pair of contact lenses need to be available. During your consultation, a review of your refractive error and lifestyle is done to determine the best visual outcome for your individual situation. This one-on-one question and answer period (which includes a short educational video) can help you make the decision if Laser Vision Correction is right for you.

Please call the office to schedule your complimentary Laser Vision Correction consultation*. If you prefer to speak directly with the Refractive Surgical Coordinator, our receptionist will take your contact information and the Coordinator will return your call as soon as possible. Consultations are slotted for specific times and for your convenience, early evening consultations are available. A one-time discount on Laser Vision correction is offered at every consultation with our Refractive Surgical Coordinator.

MAKING YOUR DECISION

The decision to have Laser Vision Correction is an important one that ultimately only you can make. It is important that you have realistic expectations. Your decision needs to be based on facts not hope, hype or misconceptions. Also, it is important to understand that all surgeries come with some risk. The goal of any refractive surgical procedure is to reduce your dependence on corrective lenses. Laser Vision Correction does not always result in 20/20 or even 20/40 vision. Carefully consider the pros and cons of each form of Laser Vision Correction. Do not feel pressured by anyone to make a decision about having surgery. In the end, only you can decide if Laser Vision Correction is right for you.

MOVING FORWARD

Once you have decided to proceed, please contact the Refractive Surgical Coordinator at The Family Eye Care Center to help guide you through the scheduling and pre-testing process. There are two (2) pre-operative testing visits needed. During these visits, we do a thorough evaluation of your eyes including a refraction, pachymetry, topography, a WaveScan® and a Pentacam®. (Unfortunately, in some instances, we may discover an underlying condition that limits your Laser Vision Correction choice or may even eliminate you as a Laser Vision Correction candidate altogether.) We also review each detail of the Laser Vision Correction procedure you are having, including its risks, benefits and alternatives. You will have a firm understanding of the entire process prior to having your surgery. **It is imperative that all contact lens wear be discontinued prior to your first pre-operative visit. Specifically, soft contact lenses need to be discontinued 3 weeks prior and rigid gas permeable lenses 4 weeks prior.**

As a service to our patients, we are pleased to offer you several financing and payment options.



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PUNCTAL PLUGS

During a pre-operative visit, punctal plugs* are inserted in the lower tear duct drainage openings of each patient regardless of the Laser Vision Correction procedure to be performed. Punctal plug insertion is an office procedure that is safe, quick, painless and totally reversible. Once inserted, a person should not feel their presence and they do not require any special care. These tiny devices, made of flexible silicone, act much like a cork, occluding (blocking) the drainage duct that carries tears away from the eye's surface. Often used to treat dry eye syndrome, punctal plugs will allow for better healing during the Laser Vision Correction post-operative period.

***Punctal plug insertion is considered a medical procedure and will be billed to your medical insurance for payment.**

FINAL THOUGHTS

In conclusion, Laser Vision Correction is a commonly performed procedure that corrects a person's refractive error. The high rate of patient satisfaction is the reason for its popularity. Dr. Baharozian has over 15 years of experience performing Laser Vision Correction procedures and will personally handle your care from start to finish. He has a full service medical practice that will care about you and your vision for a lifetime. Some Laser Vision Correction Centers are financially driven to "sell" you on Laser Vision Correction. As health care professionals, we are motivated to provide you with superior medical care using state-of-the-art equipment. Your **ocular health** is our bottom line. To see if we can help you achieve a life less dependent on glasses or contact lenses with Laser Vision Correction, please call the office and schedule an appointment.

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