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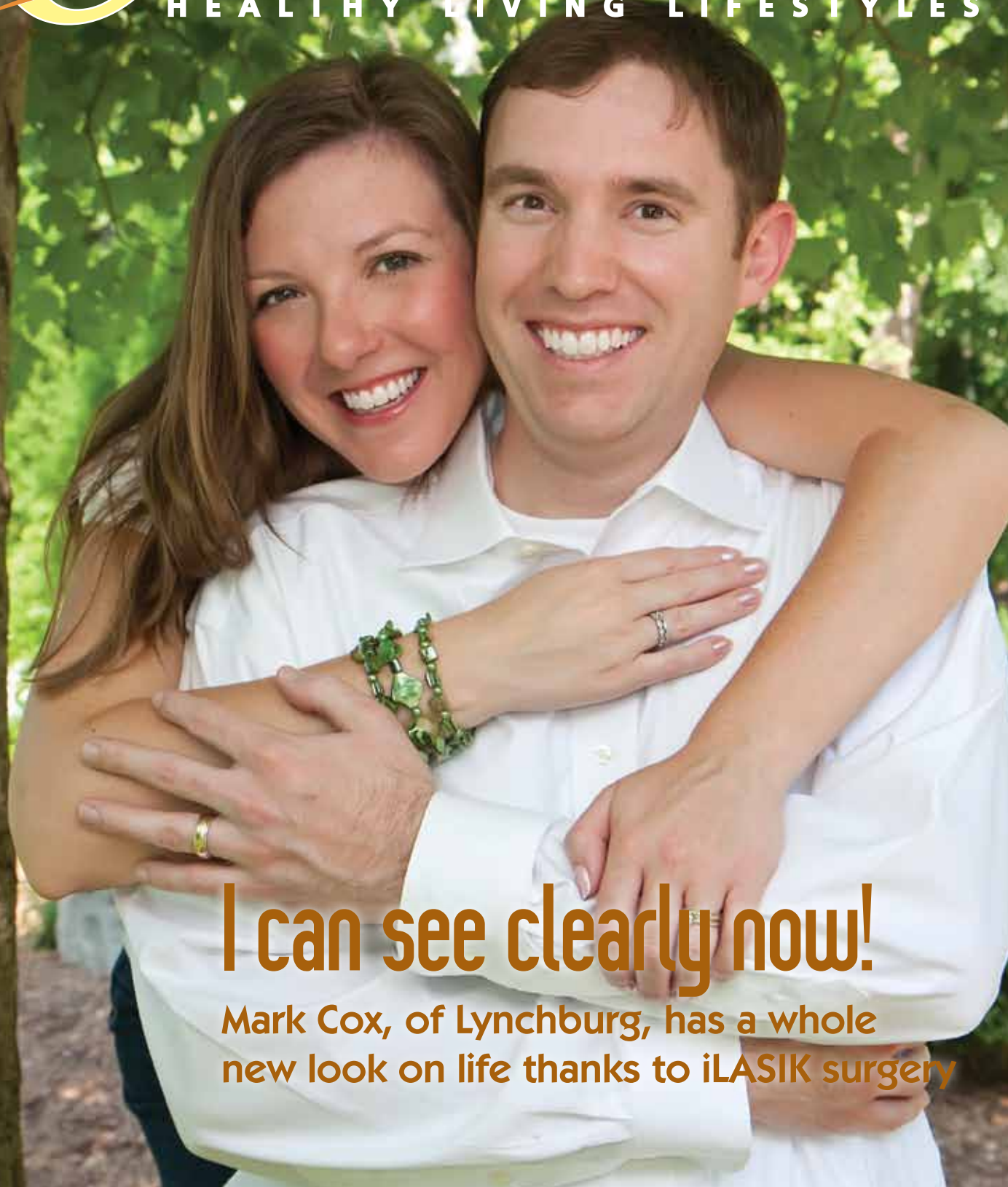
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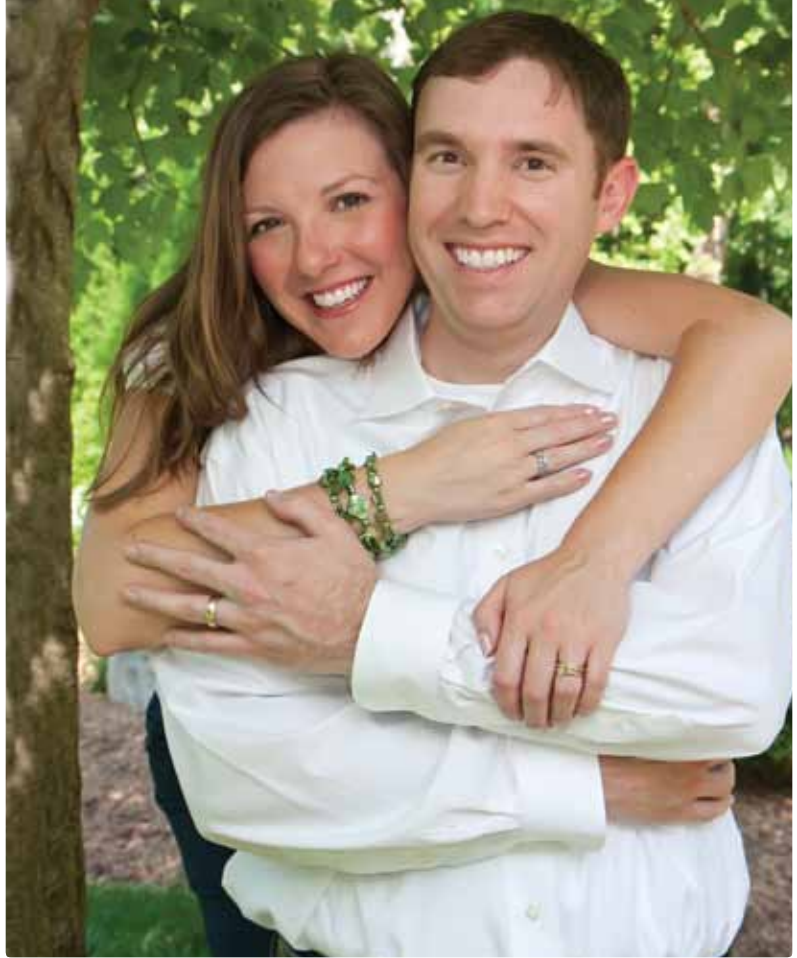
OUR HEALTH

HEALTHY LIVING LIFESTYLES



I can see clearly now!

Mark Cox, of Lynchburg, has a whole new look on life thanks to iLASIK surgery



Thanks to iLasik, I can see clearly now!

Words [Stephen C. McClintic, Jr.]

After years of consideration, Mark Cox, of Lynchburg, finally made the decision to have LASIK eye surgery. His only regret is that he didn't get it done sooner.

According to the Vision Council of America, approximately 75 percent of adults use some sort of vision correction. About 64% of them wear eyeglasses, and about 11 percent wear contact lenses, either exclusively, or with glasses. More than half of all women and about 42 percent of men wear glasses.

Throughout the years, the practice of medicine dealing with eye care and surgery has evolved significantly. Thanks to advancements in non-surgical eye care treatments, such as prescription eyeglasses, over-the-counter reading glasses and contact lenses and in surgical procedures, like cataract removal, macular degeneration treatment and corneal replacement, among many others, people have been able to see the world in an entirely new way.

Then came along LASIK surgery. A revolutionary procedure designed to eliminate the need for eyeglasses and contact lenses. And it has made a tremendous difference in the lives of so many people.

Including Mr. Cox.

A Brief History of the LASIK Surgery Procedure

LASIK eye surgery, (LASIK is the acronym for Laser Assisted In-Situ Keratomileusis, developed over the course of one hundred years. Knowledge of the eye in conjunction with sophisticated surgical techniques culminated in many Europeans acknowledging the possibility of radial keratotomy. Japanese doctors in the 1930's also saw this potential. However, it was not until the 1970's in Russia where it was actually put to the physical test.

A Dr. Fyodorov was treating a young boy. The boy had fallen, and his glasses had broken and cut into his eye. Rather than significantly hurting the boy, the damage was minimal and simply shaved a layer off of the outer surface of the eye. The boy, previously very myopic (nearsighted) had improved vision in that eye. Dr. Fyodorov was intrigued and studied the matter. He published his discoveries, but it was not until American doctors with adequate funding could begin serious research and develop computer models of the procedure. It was Dr. Leo Bores who brought the procedure to the United States after witnessing it performed in the former U.S.S.R.

It was also the Americans who were able to feasibly include a laser in the process. Previous to the laser, radial keraotomy was performed with traditional surgical tools. Though imprecise and not always a success, over two million people had the surgery performed before the advent of the laser assisted surgery. It was in 1978 that American doctors realized the potential of the surgery coupled with an Excimer laser. Dr. Srinivasin first used the Excimer laser on other biological tissue, and later Dr. Steven Trokel, an ophthalmologist, used the laser on the cornea.

Vision Loss at an Early Age

Since he was a middle-schooler, Mark required vision correction through either eyeglasses or contact lenses. Taking out his contacts each night or using extra caution to protect his glasses was second nature to him. But since it was just a part of his daily life, he didn't view it as an inconvenience.

About ten years ago, during a regularly scheduled eye appointment, his doctor brought up the topic of LASIK. Although it was a relatively new procedure then, especially in our community, Mark became intrigued.

"I asked the doctor a lot of questions about LASIK, but I wasn't compelled to have the surgery," explains Mark. "Soon after that, I began talking to friends who had the procedure to find out what their experience was like. Everyone I spoke to had nothing but positive comments about their results."

Through the years, Mark became more and more interested in further exploring the option of LASIK. His eye doctor would regularly tell him about advancements that had been made, and he continued to have friends and co-workers tell him about their fantastic outcomes.

Taking the First Steps

This past spring, Mark made the decision to find out for sure if he was a candidate for LASIK surgery. A friend recommended he call Piedmont Eye Center, so he took the advice and scheduled an appointment.

"This initial evaluation is an extremely important part of the process," explains Darin Bowers, MD, an ophthalmologist at Piedmont Eye Center. "Whereas some providers charge for this level of examination and testing, we do the entire exam without charge because we don't want the patient to feel pressured to follow through."

Who is a Candidate for the Procedure?

Dr. Bowers says approximately 95% of people are candidates for LASIK.

"In my experience, about 5% of candidates are not candidates for LASIK," says Dr. Bowers. "There are several reasons why a person is not a candidate, such as the fact their cornea may be too thin to allow treatment, their refraction is too high and out of range of what LASIK can provide, there are corneal irregularities found during the initial exam (suggestive of an underlying corneal degenerative



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Thomson Reuters 50 TOP

One of America's **BEST** Cardiac Hospitals

Centra Lynchburg General Hospital has been named one of the nation's 50 Top Cardiovascular Hospitals by Thomson Reuters. For the first time in the study's history, Thomson Reuters has singled out 50 hospitals instead of the traditional practice of naming 100 winners. This is the sixth time Centra has been rated as one of the nation's top cardiovascular hospitals.

This honor comes on the heels of Centra receiving the highest rating for open heart surgery from The Society of Thoracic Surgeons (STS). Centra has received this rating from STS every year since its inception four years ago and is the only hospital in Virginia to earn this rating for each of these years. In addition, the Centra Stroobants Heart Center is certified by The Joint Commission as an acute heart attack center and is accredited as a certified chest pain center.



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Am I a candidate for LASIK?

To ensure a person is a candidate for LASIK, the ophthalmologists at Piedmont Eye Center require that he or she first undergo an evaluation. During this evaluation, the patient has a comprehensive dilated eye examination along with corneal topography (to look for irregularities, etc), pachymetry (to measure corneal thickness) and wavefront measurements (computerized measurements that determines what the customized treatment would look like for each eye tested). Upon completion of the tests and an assessment of the patient's eye, the ophthalmologist reviews the findings and determines if the patient is a candidate. If he or she is a candidate, the doctor explains the treatment route, along with the risks, benefits and options, as well as answer any questions. The evaluation lasts about 90 minutes.

problem), or there are associated conditions, such as cataracts or diabetic changes."

Mark Learns He is a Candidate

Upon completion of his evaluation, Mark learned he was a candidate. The next step was to schedule a time for the surgery.



Head iLASIK™ technician, Debbie Anderson, gathers measurements during Mark's evaluation. Debbie has served as Dr. Bowers head surgical assistant for over 14 years.



Refractive Coordinator, Shannon Barksdale, spends time before surgery with Mark and his wife, Stephanie, explaining his post-operative care.

"Most patients are very eager to have the procedure performed, so we make every effort to get them scheduled within a week or two following their evaluation," states Dr. Bowers.

Even though Mark was very excited about this new change in his life, he admits being concerned about the risk of irreparable eye damage.

"The eye is such a sensitive organ, especially when you think about manipulating it," says Mark. "My main concern was something would go wrong that would cause irreparable vision loss."

Dr. Bowers says that while there are rare complications with any surgical procedure, iLASIK remains one of the safest procedures performed today.

"Since iLASIK uses the Intralase™ laser to create the flap, the procedure is proven to be safer than conventional methods, i.e., microkeratome, where a blade is used," explains Dr. Bowers. "The chance of an irregular or partial flap occurring is all but eliminated. Most problems encountered are very treatable and include things like an infrequent corneal

abrasion or inflammation under the flap. Recognized and treated appropriately, they have no long-term effects. Infections are rare and many studies have shown that serious infections are actually higher in patients wearing contacts than those who undergo iLASIK."

The Day of Surgery Arrives

The day of the surgery, Mark and his wife, Stephanie, arrived at Piedmont Eye Center. (Another person who can drive must accompany the patient because he or she cannot drive after the procedure). The surgery is performed in the laser suite at Piedmont Eye Center so patients do not have to travel to other surgery centers or the hospital. Dr. Bowers spent some time talking to Mark and Stephanie about the 20-minute procedure and answered their questions. Then, preoperative antibiotic drops were placed in Mark's eyes and the area around his eyes were cleansed and prepped to reduce the risk of infection. Next, Mark was given a mild, oral sedative and numbing drops were placed in his eyes. He was then taken to the laser suite and positioned on his back between the

What type of LASIK procedure does Piedmont Eye Center perform?

Piedmont Eye Center began performing LASIK in 1999 using a mechanical microkeratome to create a LASIK flap. With the development and success of the Intralase™ laser to create the flap, the doctors decided to change over to this technique, called iLASIK, in February 2007. The studies convinced them that the "all laser" method to create a flap was more precise, consistent and safer. Shortly after they began using the "all laser" method (Intralase™ to create the flap and the VISX™ laser for treatment), VISX™ came out with an important upgrade called "iris-registration" (IR). Some providers opted out of the upgrade due to costs; the doctors at Piedmont Eye

Center acquired it because they felt it was an important one that improved upon patient treatments. Basically, (IR) allows for a more highly aligned treatment and uses the patient's iris patterns (which is unique in every eye of every patient, similar to a fingerprint) to 'recognize' [validate] the correct eye. It then aligns the actual treatment with the iris pattern since there is some degree of eye rotation that occurs when a patient goes from a sitting position to a lying position. Prior versions of software did not compensate for this natural eye rotation, whereas IR does correct for this, creating a more precise treatment.

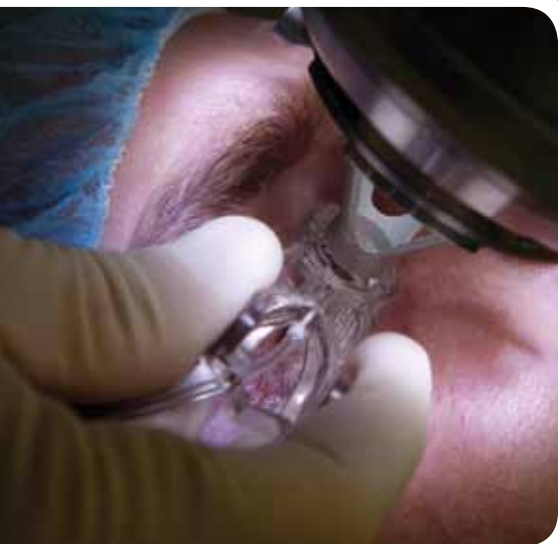


iLASIK™ technician, Krista Irvin, prepares Mark for surgery by cleaning the area around his eyes.

Eye numbing drops are instilled to ensure Mark is comfortable during the procedure.



Dr. Bowers sits down with Mark before the surgery.



two lasers (the Intralase™ makes the flap and VISX™ laser is used for the treatment).

Mark says that while he thought he would have been anxious about the surgery, he was actually quite calm and relaxed.

"I was really excited about being able to see normally again without the aid of contacts or glasses," says Mark. "It had been so long that I couldn't remember what "normal" was!"

Once Mark was in the correct position, Dr. Bowers placed a small plastic device around his eye to gently keep the eyelids open. A small, low-suction vacuum connected to the plastic device secured the eye to prevent it from moving. This ensured Mark that he did not have to worry about blinking or moving his eye.

"Patients may feel a little pressure from the vacuum while the laser creates the flap," says Dr. Bowers. "The good thing is this step only takes 20 seconds."

Once the laser created the flap, it was gently lifted out of the way. Mark says he did not feel this part of the procedure at all, which is attributed to the numbing drops. He was then placed under the VISX™ laser.

Dr. Bowers says accidental movement by the patient isn't as critical during this step since the laser software can track the eye. Patients are asked to look at an orange flashing light and assured not to worry if they have trouble staying on the target.

The VISX™ laser treatment took about 20 seconds per eye. Once complete, the flap was gently moved back into position, which re-adheres by natural, hydrostatic forces. That was the last step of the procedure.

Mark was returned to the pre-op room where he rested with his eyes closed for the next 15 minutes so the flap could continue to settle.

A New Look on Life

After the 15 minutes passed, Mark opened his eyes.

"Unbelievable," Mark exclaimed. "I don't know how else to explain it. Just before the surgery, I couldn't read a single letter on the vision chart. Then, after the surgery, I could read nearly every letter, including some on the 20/20 vision line!"

In the past, common practice with LASIK would be to create a flap on the cornea using a microkeratome blade. But during the iLASIK procedure, the Intralase™ laser creates the flap with greater precision and is 100% blade free. This is just one of the three technologies used in the iLASIK™ platform.



After the flap is created, Dr. Bowers used the VISX™ StarS4 excimer laser to reshape Mark's cornea, after which the flap was gently laid back in place. During this time, the eye is still completely numb.



Within the first 30 minutes of the procedure being completed, Mark is already seeing quite well. But will still need to go home and rest for the remainder of the evening with his eyes closed.

Mark says before his surgery, his vision was so bad that he could not see the text in a book even when held a few inches from his face. After surgery, his vision test showed he was 20/40.

Lastly, Dr. Bowers performed a post-op evaluation and provided Mark with some post-surgery care information. He advised Mark to keep his eyes closed for the following 2 – 3 hours and asked him to sleep with goggles over his eyes for about a week.

Post-Op Follow Ups

Dr. Bowers likes to see patients one day after the surgery for a follow-up, then after one week, after one month and after four months.

"Most patients see well enough to drive themselves in for their post-op visit the next morning," says Dr. Bowers.

The next day, Mark returned to Piedmont Eye Center for the evaluation. He says he felt some scratchiness in his eyes, which Dr. Bowers said he could expect. Mark also said he had redness in his eyes and saw "halos" when he looked into reflected sun light, street lights or head lights but these side effects were considered normal.

"When I returned to the doctor's office the next day, my vision was between 20/20 and 20/30," says Mark. "I am not even sure I ever had vision that good at any time of my life!"

Mark, who is a mechanical engineer at AREVA, says he worked from home that day, but in hindsight, feels that he could have driven into the office.

"I could see a computer screen perfectly fine and reading text on paper was no problem the next morning," says Mark. "I took extra precaution by working from home."

Breaking Old "Habits"

During the next few weeks, Mark says his vision continued to improve. After about three weeks, all the redness in his eyes was gone and he was no longer seeing halos. It was if he had been able to see clearly his entire life. He says the one interesting thing about having surgery is breaking the daily habit of thinking he needs to put in and remove his contacts.

"For more than 20 years, wearing glasses and putting contacts in was a part of my daily routine. It's no different than the habit of brushing your teeth," says Mark. "Then, one day, you wake up, and you no longer have to do it. It's a good feeling to not have to rely on contacts or glasses in order to see."

So what does Mark feel has been the biggest difference in his life since having iLASIK performed?

"Convenience and time savings. I no longer have to rely on corrective eyewear. I don't have to think about it when playing sports or exercising. I can travel now without worrying about leaving my contacts, contact solution or glasses behind. This surgery has given me a great sense of freedom that I wouldn't have known otherwise had it not been for the incredible staff at Piedmont Eye Center and of course, Dr. Bowers. Everyone at Piedmont Eye Center who was involved in the surgical process was very interested in helping me have the best experience possible. They are very knowledgeable about the iLASIK process. I will highly recommend them to any of my friends and family. And I will."

For more information about Piedmont Eye Center, its doctors & services, please visit www.piedmonteye.com or call 434.947.3984.

A Q&A about iLASIK between Our Health (OH) and Dr. Darin Bowers (DB)

OH: On average, how many iLASIK procedures do you perform each month?

» DB: Typically it ranges between 20 to 60 cases per month.

OH: What type of additional training did you have to undergo to perform iLASIK?

» DB: I received my LASIK instruction under the guidance of Dr. Alan Carlson at Duke University and Dr. Dhaliwal Deepinder from the University of Pittsburgh, both of whom are leading national and international experts in the field of refractive surgery. My further certification in the iLASIK method was achieved through various designated VISX™ courses done locally using our own laser and at other sites in the United States.

OH: Does iLASIK permanently correct a person's vision or will he or she need to have it re-done later in life?

» DB: The treatment is permanent. Changes are minor if any usually and if they occur it is usually over a number of years. Re-treatments can be done, although most patients do not need any. 95 percent of patients are on target after one treatment, while 5 percent need a touch up, which we offer for free within the first year. If changes do occur, they are usually seen within a few months. Females may have a slightly higher regression rate (need for re-treatment), which is likely hormonally-related, and patients with higher corrections have higher rates for needed touch ups. Age is generally not an issue although iLASIK is FDA approved only for people over the age of 21 as younger patients may still be changing. High altitude mountain climbing is best avoided for about 4-6 months.

OH: Does having iLASIK surgery save money over the long term versus getting new glasses, frames or contact lenses on a regular basis?

» DB: Once patients consider how much they spend annually on glasses, contacts, cleaning supplies and care for contacts, they typically find that it is a lot more than they realized. Multiply that annual expense by 5 years and most could pay for iLASIK and then some. Abbott Medical recently did a cost

comparison between iLASIK and contacts and the long-term spending on contacts showed to almost certainly offset the cost of iLASIK, depending on the patient's age and other factors.

OH: Does insurance cover iLASIK? If insurance does not cover the costs, what are the out-of-pocket costs of iLASIK?

» DB: Insurance does not typically cover LASIK unless a person has a specific vision correction plan. Some insurance companies offer discounts, and if so, patients will need to make sure their LASIK provider participates in these discount programs. Nationwide, fees typically range between \$2000 to \$3000 per eye, or about 5000 per individual. At Piedmont Eye Center, we charge \$2100 per eye, which is well below the national high cost. But keep in mind that our price includes the pre-surgery evaluation and all of the post-surgery follow-up exams with the surgeon.

OH: Can iLASIK be financed? If yes, what are some options on financing a medical procedure like iLASIK?

» DB: Financing is an option and works well for many people. At Piedmont Eye Center, we offer financing for our iLASIK procedure through a company called CareCredit. This company specializes in financing medical expenses not covered by insurance, which makes it a perfect option for LASIK patients. We also offer qualified patients a 0% interest rate option for 12 months, as well as extended financing plans. We have found this helps LASIK become more affordable for a greater number of our patients.

OH: Does iLASIK benefit people who are far-sighted more than those who are near-sighted or vice versa?

» DB: It benefits both, actually. Near-sightedness is more common so those with near-sightedness make up the largest group we treat.

OH: Outside of realizing better vision, does a patient who has had iLASIK reduce his/her risk of developing other eye conditions, such as cataracts, glaucoma, astigmatism, etc.?

» DB: Astigmatism should not come back in most cases. It does not change the risk of other eye conditions listed above. Dry eyes can be an issue following LASIK but this is mostly temporary and treatable.

OH: If a person naturally has dry eyes, does iLASIK cause the condition to be worse? If yes, what are some options to help address this?

» DB: iLASIK will temporarily worsen the condition. If a patient has severe dry eyes, they may not be a good candidate. Most patients with dry eye symptoms can have iLASIK, but they may need to use artificial tears or prescription eye drops, such as Restasis, for six months to a year after surgery.

OH: Do iLASIK patients have a greater sensitivity to light?

» DB: It's normal to be light sensitive for the first 24-48 hours following surgery, but most symptoms resolve after this time period. In rare instance, this can be an issue for some for a longer period, such as weeks or months. Usually, an underlying cause is to blame, especially when it comes to dry eyes. Treating this more aggressively often resolves the problem.

OH: Are eye conditions, such as glaucoma or having an astigmatism, harder or easier to manage following iLASIK surgery?

» DB: Glaucoma can be more challenging as intraocular pressure readings are affected. However, in patients who have glaucoma, their new pressure readings become their baseline and can be followed with as similar accuracy as anyone else. Other parameters followed (eye exam changes and visual field testing) are not affected, so most patients with mild and stable glaucoma can still have LASIK.

OH: What is the ideal age for a person to have iLASIK surgery? How young can a person be to get iLASIK surgery, and what is the oldest a person should be to have the procedure performed?

» DB: A person should be 21 years-old or older. I've treated patients who were in their 70's as long as they had no other eye problems or contraindications.

OH: How much time off from work and other activities, such as exercise, will a person need following surgery?

» DB: Most patients return to work the next day. There are no restrictions to exercise after the first 12-24 hours. Swimming or entering hot tubs is not recommended for four weeks. I advise patients to wear protective eyewear for sports activities for at least a month and longer, if possible, as the flap continues to 'tighten down' over several months. It is very rare for injury to occur to the flap one month after surgery unless the person is involved in a traumatic accident that causes facial damage, i.e., a severe car accident.

OH: What discomfort should a patient expect to experience during and following iLASIK, and what are the recommended steps to reduce pain and discomfort?

» DB: During the procedure, patients may feel mild pressure but it is brief. Patients normally have some irritation, burning and tearing for about two-three hours after the procedure. The medication drops (steroid and antibiotic along with artificial tears) provide relief.

OH: Do you have any more thoughts/advice/precautions one should consider before, after or during the iLASIK procedure?

» DB: Patients should make sure their LASIK provider is using the absolute latest laser software upgrades which should include IR (iris registration) and custom treatment. An iLASIK designated surgeon has this equipment. Some providers are still using software which does not include IR. Also, make sure your provider has extensive experience of at least a thousand procedures. Patients should ask what is involved in a "free screening LASIK" evaluation as some will only do a brief, non-dilated exam that may only include a measurement of their glasses to see if they are a candidate. Many times, anything more of an exam can cost additionally. Piedmont Eye Center's free exam is comprehensive and can take up to 90 minutes to complete and includes time with the surgeon to review everything as well as answer all the patient's questions.