Is LASIK for me?

Part 3 of a 3-Part Series

A NEW VIEW ON LIFE

Answers to your laser eye surgery FAQs

Patient stories and photographs are based on real-life experiences, portrayed by models. Individual results may vary.
Is LASIK for me?

After surgery—
A New View On Life

After surgery, how you see life will change. Literally. Some ophthalmologists—who understand eyes and the possible risks/benefits better than anyone—have refractive surgery performed themselves.

“I developed contact lens intolerance and I was only able to wear my contacts socially on the weekends,” says Sanjay “Sonny” Goel, MD, executive medical director, LasikPlus Laser Vision Centers, Annapolis, Maryland. “And I found my glasses to be very uncomfortable. So, for me, it was an easy decision; I knew all the risks and benefits. I had the surgery in July of 1999, and in February of 2000—about eight months after surgery—I was able to snorkel and look in the water without glasses or contacts. I was seeing these incredibly beautiful, colorful fish and the sea life was just amazing. I didn’t know what I had been missing. It was unbelievable.”

Will I still need glasses or contact lenses after surgery?

The less refraction you have going into the surgery, the greater the chance you’ll have 20/20 (or better) vision after surgery. If you have severe vision problems prior to surgery, you may still need to use glasses or contact lenses in some situations—for instance, for reading and/or driving.

If you have presbyopia and you wear bifocals before surgery, you may still need to wear reading glasses to see small print.

“I developed contact lens intolerance and I was only able to wear my contacts socially on the weekends.”
— Sanjay “Sonny” Goel, MD

LASIK is not for everyone. The most common risks of LASIK vision correction surgery with refractive lasers include dry eye syndrome; the possible need for glasses or contact lenses after surgery; visual symptoms including halos, glare, starbursts, and double vision; and loss of vision.

For Important Product Information about the WaveLight Lasers please see the last page of this magazine.

“If a soldier on the battlefield loses or breaks his glasses, they may have to fly in a spare pair of glasses for that soldier. Imagine what that costs to have to air-drop a pair of glasses,” says Dr. Goel. “And, if you’re a soldier and you’re captured by the enemy, the first thing they do is take away your glasses. Because if you can’t see, you can’t escape; you have no idea what’s going on.”
"Will my surgery wear off?"

No, your surgery won’t wear off. That said, you may wish to have additional surgery in the future to fine tune your vision or if your prescription changes. Sonia H. Yoo, MD, refractive surgeon with Bascom Palmer Eye Institute, and professor of ophthalmology, University of Miami Miller School of Medicine, Florida, says laser vision correction may last indefinitely when vision is stable at the time of the surgery. However, in cases of unstable vision, four to 10 percent of patients may require retreatment for under-correction.

Dr. Goel says his refinement rate is less than five percent. “Those rare cases that do require retreatment often relate to differences in how individuals heal, he explains. “I tell patients the technology’s wonderful, but everyone heals differently. And, even within the same individual, each eye could heal differently.”

Ron Krueger, MD, ophthalmologist, refractive surgeon with the Cole Eye Institute at the Cleveland Clinic in Cleveland, Ohio, says, “Your vision is not going to go back to where it started.” That said, he adds, we can’t see into the future. “Anything can happen in 20 years. Maybe your eyes might grow, they might change. It’s part of the nature of the living tissue which is your eye—that it may change.”

He has patients who had laser surgery 10 years ago, and when he examines their eyes, he sees that their prescriptions may have changed a little. “Then we talk about doing further surgery,” to address the change in prescription, he explains.


Does vision still deteriorate after LASIK?

Your eyes will continue to age after surgery, and this may eventually affect your near vision. Also, nearly everyone will develop cataracts as they get older. LASIK surgery doesn’t treat—or prevent—cataracts. However, you can have cataracts removed if they develop after you’ve had laser eye surgery.

“Your eyes will continue to age and to change,” says Stephen Slade, MD, Slade & Baker Vision Center, Houston, Texas. “They may develop some cataracts or whatever else is going to happen to them, but the laser surgery’s effect is permanent. It’s really a lifetime of good vision.”

Chirag Shah, MD, an ophthalmologist with LasikPlus Vision Centers near Philadelphia says much the same. “Everyone will eventually develop cataracts. Everybody who has had LASIK will get cataracts. So will everybody who hasn’t had LASIK. If you live into your 70s and 80s, you will get cataracts because it’s a matter of aging. It’s important to let your cataract surgeon know if you’ve had LASIK because it affects the type of implants or the power of the implant that you put in the eye. Your cataract surgeon will look at your data from before LASIK and calculate what size or power lens to put in the eye.”

A Final Observation

Obviously, for a certain group of people, laser refractive surgery is a permanent, effective approach to seeing life more clearly. Whether LASIK or any of its iterations are an option for you is a decision that you and your ophthalmologist can make. If you need to wear glasses or contacts, however, and for any reason you’d rather not need corrective lenses, then it seems sensible to search out a skilled and reputable surgeon and undergo the pre-surgical assessment. Find out if you’re even a candidate.
As I See It

by Karen Donley-Hayes

A couple months ago, laser eye surgery wasn’t on my bucket list, even though, as a writer and editor, I rely on my glasses to get the job done—literally. For me, glasses are a necessary nuisance. I don’t like them, and forego them when I can. I work with horses, and avoid wearing my glasses if I’m riding, grooming horses, or just in the barn. I won’t be able to read my watch or see anything clearly up close, but it’s a trade-off: glasses versus sore eyes and a headache. I decided I wanted to pursue it, and made an appointment with Ron Krueger, MD, at the Cole Eye Institute at the Cleveland Clinic in Cleveland, Ohio. Like all potential laser surgery patients, I underwent a very thorough examination to determine if I was a candidate, and, if so, which surgical approach would be best for me.

By the time I left the office a few hours after I’d arrived, I knew I was a candidate, and which procedure would be best for me. We discussed financing, and I was scheduled for a final preoperative visit/exam, LASIK surgery, and routine postoperative exams.

A year ago, I can’t have believed if someone told me I’d be doing this. I can’t wait to see my new world!

My LASIK Surgery

The day prior to my procedure, I met with Dr. Krueger in his office for the final round of preoperative tests. They double-checked my prescription, dilated my eyes, conducted additional in-depth examinations, and Dr. Krueger and I again discussed my procedure. At the end of the meeting, I signed the consent form and made arrangements for payment.

On surgery day, Dr. Krueger and his assistants again discussed with me the exact procedure I would be having. I liked that we discussed this several times; it gave me confidence not only that Dr. Krueger and his team were completely focused on me and my case, but also that I had enough time to think about and ask questions I may not have thought of without these longer discussions. By surgery time, I also felt I understood my specific LASIK procedure to the point I could explain it to someone else, and know what I was talking about.

In the operating suite, I got to look at all the equipment and computers. Dr. Krueger explained that he would create the flap (using the femtosecond laser) in both eyes first—this would take about 30 or 40 seconds per eye, and, although I wouldn’t feel any pain, I would probably feel pressure when he made the flaps, during which time my field of vision would darken and I might see stars. This was often the most uncomfortable part of the procedure for most patients, he told me, but it would be over very quickly. After creating the flaps, Dr. Krueger would then use the excimer laser to sculpt each cornea. They showed me both lasers, explaining which was which—Dr. Krueger would then use the excimer laser to sculpt each cornea. They showed me

I lay on my back on the operating table, my head resting in a cradle, and, much like with any eye exam, the equipment was very close to my face. Dr. Krueger put napping drops in my eyes, and told me I’d be looking at lights of varying brightness. He placed gauze over my right eye, so only my left was exposed. Then he placed tape and small clamps on my eyelids to keep my eye open; this was not as irritating as I’d expected. He told me he was about to create the flap with the femtosecond laser, and reiterated I might feel pressure and my vision would darken. He was right on both counts: I didn’t have pain, but the pressure was uncomfortable; my vision darkened and I saw pinprick lights. In less than a minute, he was putting the gauze over my left eye, and working on creating the flap in my right eye. It was over very quickly, and I felt remarkably relaxed.

Having created the flaps with the femtosecond laser, Dr. Krueger switched to the excimer laser to sculpt first my right then my left cornea. I watched a green light in the center of another ring of lights. Sometimes the lights and colors blurred, sometimes they cleared. I didn’t feel anything; I could smell the effect of the laser reacting with the oxygen in the room—sort of a singing hair smell—but otherwise it seemed I was looking at lights and colors through a kaleidoscope.

Within 15 minutes of walking into the surgical suite, my LASIK procedure was finished, and Dr. Krueger was giving me instructions and a post-operative kit that included sunglasses, eye drops, and goggles to wear for the first few nights so I didn’t rub my eyes in my sleep. Although my vision was hazy (as if there were a light mist in the room), I could see and read the post-operative instructions—something I’d been told to expect a day or two. I could clearly see through a kaleidoscope.

I was so happy that I didn’t listen to that little voice inside fretting that I couldn’t do without my glasses anymore—turns out I wasn’t just imagining it.

During the first week after my LASIK, I experienced some challenges and side effects. For example, I saw halos at night around lights (similar to what I’d seen when I wore contacts), and my eyes occasionally felt a little tired. For a few nights, I wore the protective goggles so I didn’t rub my eyes while I slept, but during the day, I rarely had to concentrate on not rubbing my eyes—a habit I’d had for years. I also had to be careful showering for the first week, concentrating on not rubbing my face or eyes or letting tap water run into my eyes. And the prescription eye drops I applied four times a day the first week eventually worked through my sinuses and left a bad taste in the back of my mouth. Happily, I quickly discovered that eating chocolate took care of that small problem!

I admit that, before my LASIK procedure, I felt ambivalent about spending the money and going under the knife (well, the laser) merely because I didn’t like dealing with glasses. It seemed frivolous and silly to spend so much money on a surgery that would give me what I already had with glasses. So, I didn’t tell many people I was considering LASIK.

Within a couple days after the surgery, however, all that had changed, and I hardly stopped talking about it. Like that, within a day of the surgery, I already saw better—especially during close-up reading—than I had with my bifocals or even my “heavy duty” prescription reading glasses. I was surprised at the feeling of liberation. I love not having to juggle two or three pairs of glasses, depending on what I’m doing—for example, not being able to read whatever I want, whenever I want, without having to adjust my glasses or increase the size of the text on the computer monitor. I love being able to open the oven and not have my glasses steam up. I love not having them fog over when I go outside in the cold weather. And I love being able to see clearly when I groom my horse, fiddle around the barn, and ride, before a lot of the blur was a blur—literally—because, as soon as I got to the barn, I’d stow my glasses in my locker.

I’m so happy that I didn’t listen to that little voice inside fretting about LASIK beingpray and unnecessary. It was a gift from me to me, I decided. But, it wasn’t until after I gave myself that gift that I could clearly see the beauty of it.

As is Lasik for Me?

*Disclosure: Ms. Donley-Hayes received no gratis or reduced fee consideration for her LASIK procedure.*

Karen with Dr. Krueger after the completion of Karen’s LASIK procedure.

– Photo courtesy of Jack Shao, MD

Dr. Krueger performing LASIK on Karen

– Photo courtesy of Jack Shao, MD

The computer monitor screen, showing the excimer laser’s progress sculpting the cornea (the lighter gray area on the bottom has been treated).

– Photo courtesy of Jack Shao, MD

A spectacle-less Karen with horse, Indy.

– Photo courtesy of Karen Donley-Hayes

**Karen Donley-Hayes**


Disclosures: Ms. Donley-Hayes received no grants or research for consideration on this LASIK procedure.
Important Product Information about the WaveLight® Excimer Laser Systems

This information applies to the WaveLight® Excimer Laser Systems, including the WaveLight® ALLEGRETTO WAVE®, the ALLEGRETTO WAVE® Eye-Q, and the WaveLight® EX500.

Caution: Federal (U.S.) law restricts the WaveLight® Excimer Laser Systems to sale by or on the order of a physician. Only practitioners who have been trained in the medical management and surgical treatment of the cornea, who have been trained in laser refractive surgery (including laser calibration and operation) shall use the WaveLight® Excimer Laser Systems.

Indications: FDA has approved the WaveLight® Excimer Laser Systems for use in laser-assisted in situ keratomileusis (LASIK) treatments: for:

- the reduction or elimination of myopia of up to 12.00 D and up to 6.00 D of astigmatism at the spectacle plane; and
- the reduction or elimination of hyperopia up to 6.00 D with and without astigmatic refractive errors up to 5.00 D at the spectacle plane, with a maximum manifest refraction spherical equivalent of +6.00 D.

- the reduction of or elimination of farsightedness of up to 6.00 D at the spectacle plane; and
- the wavefront-guided reduction or elimination of myopia of up to 0.75 D and up to 3.00 D of astigmatism at the spectacle plane.

In addition, FDA has approved the WaveLight® ALLEGRETTO WAVE® Eye-Q Excimer Laser System, when used with the WaveLight® ALLEGRETTO WAVE® Eye-Q software and topography-guided treatment planning software for topography-guided LASIK treatments: for the reduction or elimination of up to 9.00 D of myopia, or for the reduction or elimination of myopia with astigmatism, with up to 6.00 D of myopia and up to 3.00 D of astigmatism.

The WaveLight® Excimer Laser Systems are only indicated for use in patients who are at least 18 years of age or older (21 years of age for mixed dyspigmentation and topography-guided treatment planning software for topography-guided LASIK treatments) and have a stable manifest refraction defined as ≤0.50 D of preoperative spherical equivalent shift over one year prior to surgery, exclusive of changes due to uncontrolled hyperopia.

Contraindications: The WaveLight® Excimer Laser Systems are contraindicated for use with patients who:

- are pregnant or nursing;
- have a diagnosed collagen vascular, autoimmune or immunodeficiency disease;
- have been diagnosed keratoconus or if there are any clinical pictures suggestive of keratoconus;
- are taking isotretinoin (Accutane®) and/or anticoagulants such as warfarin (Coumadin®);
- have severe dry eye;
- have corneas too thin for LASIK;
- have recurrent corneal erosion;
- have advanced glaucoma;
- have uncontrolled diabetes.

Warnings: The WaveLight® Excimer Laser Systems are not recommended for use with patients who have:

- systemic diseases likely to affect wound healing, such as connective tissue disease, insulin dependent diabetes, severe atopic disease, or immunocompromised status;
- a history of herpes simplex or Herpes zoster keratitis;
- significant dry eye that is unresponsive to treatment;
- severe allergies;
- a history of glaucoma;
- an anealable preoperative wavefront examination that precludes wavefront-guided treatment; or
- a poor quality preoperative topography map that precludes topography-guided LASIK treatment.

The wavefront-guided LASIK procedure requires accurate and reliable data from the wavefront examination. Every step of every wavefront measurement that may be used as the basis for a wavefront-guided LASIK procedure must be validated by the user. Inaccurate or unreliable wavefront data will result in a wavefront examination that will lead to an incorrect treatment.

Topography-guided LASIK requires preoperative topography maps of sufficient quality to use for planning a topography-guided LASIK treatment. Poor quality topography maps may affect the accuracy of the wavefront examination and may result in poor vision after topography guided LASIK treatment.

Precautions: The safety and effectiveness of the WaveLight® Excimer Laser Systems have not been established for patients who:

- progressive myopia, hyperopia, and astigmatism; and
- have not been studied beyond 12 months.

Hypertonia: The hypotony clinical study included 290 eyes of 167 patients of which 101 were followed for 12 months. Accountability at 3 months was 93.9%, at 6 months was 93.9%, and at 12 months 93.9%. Of the 782 eyes that were eligible for the UCVA analysis of effectiveness at the 6-month study time point, 94.3% were corrected to 20/40 or better, and 69.6% were corrected to 20/20 or better. Subjects who responded to a patient satisfaction questionnaire before and after LASIK reported a mean improvement in best corrected visual acuity from "much worse" to "improved" at 6 months post-treatment: halos (6.4%), visual fluctuations (6.1%), light sensitivity (4.9%), night driving glare (4.2%), and glare from bright lights (3.3%).

Long term risks of LASIK for hyperopia with and without astigmatism have not been studied beyond 12 months.

Mixed Astigmatism: The mixed astigmatism clinical study included 162 eyes treated, of which 111 were eligible to be followed for 6 months. Accountability at 1 month was 99.4%, at 3 months was 96.0%, and at 6 months was 100.0%. Of the 142 eyes that were eligible for the UCVA analysis of effectiveness at the 6-month study time point, 97.9% achieved acuity of 20/40 or better, and 69.3% achieved acuity of 20/20 or better. Subjects who responded to a patient satisfaction questionnaire before and after LASIK reported the following visual symptoms at a "moderate" or "severe" level at least 1% higher at 1 month post-treatment than at baseline: sensitivity to light (5.9% vs. 4.3% at baseline); visual fluctuations (43.0% vs. 32.1% at baseline); and halos (42.3% vs. 37.0% at baseline).

Long term risks of LASIK for mixed astigmatism have not been studied beyond 6 months.

Wavefront-Guided Myopia: The wavefront-guided myopia clinical study included 374 eyes treated; 188 with wavefront-guided LASIK (Study Cohort) and 186 with Wavefront Optimized® LASIK (Control Cohort). 166 of the Study Cohort and 166 of the Control Cohort were followed for 6 months post-surgery; Accountability at 1 month was 96.8%, at 6 months was 96.8%, and at 6 months was 93.3%. In the Control Cohort, accountability at 1 month was 94.6%, at 3 months was 94.6%, and at 6 months was 92.2%.

Of the 166 eyes in the Study Cohort that were eligible for the UCVA analysis of effectiveness at the 6-month study time point, 99.4% were corrected to 20/40 or better, and 93.4% were corrected to 20/20 or better. Of the 166 eyes in the Control Cohort eligible for the UCVA analysis of effectiveness at the 6-month study time point, 99.4% were corrected to 20/40 or better, and 92.8% were corrected to 20/20.

In the Study Cohort, subjects who responded to a patient satisfaction questionnaire before and after LASIK reported the following visual symptoms at a "moderate" or "severe" level at least 1% higher at 6 months post-treatment than at baseline: light sensitivity (47.8% vs. 37.1% at baseline) and visual fluctuations (20.0% vs. 13.8% at baseline). In the Control Cohort, the following visual symptoms were reported at a "moderate" or "severe" level at least 1% higher at 6 months post-treatment than at baseline: halos (45.4% vs. 36.6% at baseline) and visual fluctuations (21.9% vs. 18.3% at baseline).

Long term risks of wavefront-guided LASIK for myopia with and without astigmatism have not been studied beyond 6 months.

Topography-guided Myopia: The topography-guided myopia clinical study included 249 eyes treated, of which 230 eyes were followed for 12 months. Accountability at 3 months was 99.2%, at 6 months was 96.0%, and at 12 months was 92.4%. Of the 249 eyes that were eligible for the UCVA analysis of effectiveness at the 6-month study time point, 99.2% were corrected to 20/40 or better, and 92.7% were corrected to 20/20 or better. Subjects who responded to a patient satisfaction questionnaire before and after LASIK reported the following visual symptoms at a "moderate" or "severe" level of at least 3% at 1 month after surgery: dryness (7% vs. 4% at baseline) and light sensitivity (7% vs. 5% at baseline). Visual fluctuations were reported at a "moderate" or "severe" level at least 1% higher at 1 month post-treatment than at baseline: visual fluctuations (28.6% vs. 12.8% at baseline).

Long term risks of LASIK for myopia with and without astigmatism have not been studied beyond 12 months.

Attention: Please refer to the current WaveLight® Excimer Laser System Procedure Manual for a complete listing of the indications, contraindications, warnings, precautions, and side effects.

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