

Misconceptions About Laser Vision Correction

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COLUMN ARTICLE

Over 10 million Americans have now had laser vision correction (LVC), so don't need their glasses or contacts anymore--and over 30 million people worldwide. However, this represents only about 10% of the people who are eligible for LVC, because of common misconceptions--even among eye doctors.

Emil William Chynn, MD, FACS, MBA helped invent a more advanced, non-cutting form of LVC when he was at Harvard University, along with his collaborators Jonathan Talamo, MD, Dimitri Azar, MD, and Juan Carlos Abad, MD. LASEK is 10x safer than the more traditional LASIK because no corneal flap is cut during the procedure. LASEK is a form of Advanced Surface Ablation (ASA), to distinguish it from PRK, which is the older form of surface ablation.

PRK was the 1st LVC procedure, but never gained popularity because the postop course is painful and recovery takes a long time (typically 1-2 weeks). In LASEK, unlike in PRK, alcohol is used to allow the corneal epithelium to be gently lifted off in 1 piece ("en bloc") so there are no cytokines or other inflammatory mediators released--hence, no pain or scarring and a quick recovery (less than 1 week). Epi-LASEK is an even more advanced form of LASEK, in which a specialized epi-keratome is used to delaminate the corneal epithelium, without the need for alcohol, so recovery only takes 3-4 days.

LASEK is the preferred technique for people with dry eyes, as by not cutting a corneal flap, the corneal nerves are preserved, unlike in LASIK, where the majority of corneal nerves are unavoidably destroyed when cutting the flap--causing dry eyes.

Glare and poor night vision after LASIK is usually due to back-scatter (reflection and refraction) off the LASIK flap interface. So these problems are largely avoided in LASEK and ASA, as by not cutting the LASIK flap, the cornea architecture is preserved.

Recently, with the advent of "wave front" technology, it is possible for the excimer lasers to treat prescriptions accurate to +/- 0.01 diopter. In contrast, glasses and contacts are only capable of an accuracy of +/- 0.25 (Eg, -2.25 or -2.50, not -2.34). Therefore, modern LVC is 25x more accurate than glasses or contacts, so vision afterwards is often better than glasses and contacts, and can even exceed a "perfect 20/20".

LASEK can also treat most patients who cannot get LASIK, because so much corneal tissue is preserved by not cutting a flap, more tissue is available to treat the prescription. This is why the upper limit for LASIK is about -9.00, but LASEK can safely treat up to -19.00, provided mitomycin-C (MMC) is applied intraoperatively by the surgeon. Because MMC is a potent drug that comes from chemotherapy research, most surgeons are not comfortable using it, unless they completed a Fellowship in Cornea and Refractive

Surgery. Therefore, patients with extreme prescriptions and/or thin corneas should choose a sub-specialty trained cornea/refractive surgeon (average patients can go to a general ophthalmologist for LASIK).

At Park Avenue LASEK (PAL), because we are the only center in the USA (and one of the only centers in the world) specializing in exclusively LASEK and ASA, and have the only officially-sanctioned fellowship program in the US which focuses mainly on Refractive Surgery (not cornea), we have the most experience in these techniques. PAL is a tertiary referral LVC center, which means we routinely treat people who cannot be treated elsewhere, including patients with amblyopia (“lazy eyes”), nystagmus, extreme farsightedness (hyperopia), the need for reading glasses (presbyopia), and early keratoconus (using the technique of corneal cross-linking, or CXL).

Potential patients and other doctors (both MDs and ODs) interested in learning more about ASA should contact Dr. Chynn from his website, www.ParkAvenueLASEK.com Anyone filling out the Contact Form will get a personal reply from Dr. Chynn.

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