What is LASEK?

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You might think we misspelled "LASIK," but LASEK is a sister laser eye surgery that corrects vision to yield similar results. Note the similarities in the acronyms:

- Laser-Assisted Subepithelial Keratomileusis (LASEK eye surgery)
- Laser-Assisted In-Situ Keratomileusis (LASIK eye surgery)
The acronyms indicate that both surgeries are assisted by a laser, and both also deal with something called “keratomileusis.” “Kerato” means “corneal” in Greek, and “mileusis” means “carving.” Of course, “carving” doesn’t really capture the heart of laser eye surgery, but both procedures reshape the cornea with an excimer laser, to correct vision.

So what's the difference between LASEK and LASIK?

The first difference is how the surgeon reaches the stroma, a mid-layer of the cornea, to reshape it. In LASEK, the surgeon will keep the outer layers (“epithelium”) of the cornea off the eye while he reshapes the mid-layer (stroma) underneath. Once done, he’ll replace the epithelium to protect the eye while it heals, like putting down a Band-Aid. A LASEK patient will also use a special contact lens for three to four days to further protect the eye while it heals.

In LASIK eye surgery, the surgeon reaches the mid-layer of the cornea in a different way. First, he uses a femtosecond laser to create a corneal flap. This is different from LASEK eye surgery, where the corneal flap is not created. Once the surgeon reshapes the stroma underneath, he replaces the flap.

The second difference between the two procedures is recovery time. A LASEK patient recovers functional vision one to two weeks after surgery, can experience discomfort for a few days, and uses steroid eye drops for several weeks. By contrast, a LASIK patient usually recovers slightly faster, returning to functional vision within 48 hours of surgery, experiencing discomfort for only a few hours, and using steroid eye drops for about just a week.

What are the advantages of LASEK?

LASEK leaves the cornea extremely stable, because it doesn’t involve the creation of a flap. This gets rid of the risk of flap complications. In addition, some people interested in laser eye surgery aren’t candidates for LASIK due to the thickness of their corneas. This can make LASEK an attractive option for patients with thinner corneas who still want laser vision correction.

To determine if you’re a candidate for either surgery, it’s necessary to have a complete laser eye surgery consultation by a trained professional.

To learn how Custom Bladeless LASIK (the most advanced type of LASIK eye surgery) works, click here.