

LASEK Information Sheet

What are LASIK and LASEK?

-LASIK and LASEK both reshape the cornea of the eye by removing some of the tissue of the cornea using a laser. The cornea is the front covering of the eye, like a windshield over the iris (the colored part of the eye). LASEK is done on the surface of the cornea. LASIK requires that a flap is made in the cornea. There is a hinge in LASIK, and a top layer of the cornea is flipped away (like a car hood) before the reshaping of the cornea is done. The last step in LASIK is replacement of the corneal flap over the reshaped cornea.

-While both procedures are very safe overall, LASEK is slightly safer due to the lack of flap complications and a better long-term safety profile. This is an extremely small difference in safety, but Dr. Shalwala completed a fellowship in LASIK complications that bias him to perform only LASEK. Avera Marshall Southwest Ophthalmology offers both LASIK and LASEK.

Goals:

-LASEK or LASIK will **not improve your best possible vision**; the goal is to achieve the vision you have with glasses (or close to it) without having to wear your glasses. Note that this is only possible at one distance (see “warning about presbyopia”).

Warning about Presbyopia:

-Presbyopia is the condition in which the natural lens of the eye can no longer focus on things up close as well as far away. This starts around **age 40**. After presbyopia sets in, it is impossible to have good vision up close and far away without glasses while using both eyes to focus via LASIK or LASEK.

-If you are near-sighted (have a minus/negative prescription) and presbyopic (over age 40), you may be able to read/see up close without your glasses but not be able to see far away without your glasses. In this case, if we correct you to see well at distance without your glasses in both eyes, you will not be able to read/see up close without glasses AT ALL.

Other eye diseases:

-While we generally do not recommend LASIK or LASEK to patients with other ocular diseases, we do this to the best of our knowledge at the time of the exam before the procedure. Having LASIK or LASEK done on your eyes will not prevent you from getting other eye diseases in the future.

-One of the eye diseases that you will definitely get sooner or later in life is a cataract. At the current time, post-LASIK and post-LASEK cataract surgery do not provide results as reliable as cataract surgery on eyes that have not had LASIK or LASEK. So, you may not see as well without glasses after your cataract surgery as someone who never had LASIK or LASEK. With glasses, you would see just as well.

Severe Risks:

-Mild or severe **infection** is possible, which can lead to permanent loss of vision if it is bad enough. Infection is rare (about 1/5,000).

Patient initials _____

- In very rare cases, the cornea can perforate during a LASEK procedure.
- LASEK patients can develop **ectasia** of the cornea, which is a condition in which the cornea is too thin and begins to bulge and thin even further. We screen patients to the best of our ability to avoid patients who might develop ectasia, but some patients develop ectasia despite this careful pre-LASEK evaluation. LASEK causes less ectasia than LASIK; this is one of the primary reasons that LASEK is safer in the long term than LASIK.
- Severe risks are quite low, and there are studies that have demonstrated that LASEK is safer than long-term contact lens use.

Moderate Risks:

- The laser used in the LASEK procedure may malfunction, requiring that LASEK be stopped in your case before completion. In that case, we might have to retry another day.
- Some LASEK patients develop worsened **dry eye** after the procedure. This can lead to permanent eye irritation requiring dry eye treatment. This is why LASEK is generally not recommended to patients who have dry eye until that dry eye is treated.

Post-LASEK vision expectations:

- Many LASEK patients experience increased sensitivity to light, glare, fluctuations of sharpness of vision, starbursts, and halos after their procedures. These tend to decrease over the first few months following the procedure but can persist long term. These effects are worse if there is some undercorrection or overcorrection during the procedure. **Note that halos, starbursts, and glare are common to some degree and reported by 1/3 to 1/2 of patients.**
- Many LASEK patients notice that their vision at night is not as clear as it during the day.
- Some LASEK patients are undercorrected or overcorrected, which may necessitate an enhancement soon after the initial surgery. **Enhancement is needed in about 5% of cases.** There also can be a long term drift in prescription over years.
- LASEK usually causes some **pain** and foreign body sensation for the first few days after surgery. This can be mitigated by ice packs and the regimen prescribed by your surgeon.
- LASEK may not yield perfect results. LASEK patients must understand that it is not realistic to expect that this procedure will result in perfect vision at all times, under all circumstances, for the rest of their lives.

Patient initials _____