

## LASEK advantages over LASIK?

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{mosgoogle left}LASEK or Laser-Assisted in Situ Epithelial Keratomileusis, is a variation of LASIK. The procedure creates thinner corneal flap with help from alcohol solution, rather than the thick epithelial flap created by microkeratome in LASIK. The surgeon then evaporates the underlying corneal tissue like LASIK and PRK. The flap is then replaced and smoothed over.

The different between LASIK and LASEK is the flap. Lasik flap thickness is about 100 to 180 microns. Some patient with thin cornea may not have enough room to do Lasik flap. The underlying untouched cornea tissue about 250 microns is needed to reduce probability of ectasia and keep stability. This is where LASEK shine. The LASEK flap is about 50 micron thick which allow your doctor to perform operation for thin cornea patient. The flap is thin but still can fool your corneal that it never had surgery which resulted in fast recovery time as LASIK.

Unlike PRK which remove the outer epithelium completely. LASEK attempts to save the outer cornea layer by using an alcohol solution to weaken the epithelial cells and gently fold it. The corneal damages from alcohol will heal quickly since these cells are the fastest reproducing cells in the human body. The doctor will reshape the cornea by apply excimer laser through the Bowman's Layer and upper stroma. After that, the epithelium flap will be put back to its position.

In some cases that the 50 micron thin epithelium flap in LASEK is not strong enough to re-cover the surgery area. The doctor will remove epithelium flap and perform PRK procedure instead. There are no concerns if the procedure turns into PRK in most case except for a patient with great myopia who need LASEK to reduce the chance of haze. If this happens the operation may not result in best vision as patient expected. The doctor will inform every LASEK patient that the procedure is not guarantee to be completed and which procedure will be taking place.

LASEK advantages over PRK include that patient experience less discomfort, reduction in infection risk and corneal haze incidence. LASEK advantages over LASIK are reducing the possibility of stromal flap complications, including Diffuse Lamellar Keratitis (DLK), striae and dry eyes. Visual recovery time from LASIK is the fastest, then Epi-LASIK and LASEK. While PRK recovery time is slowest.

Currently FDA not approve for LASEK. However, this technique shows a promising result. Additional research and development will be required before LASEK

can completely replace LASIK.