

Vision Problems: beyond LASIK

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Welcome to the world of Infinite vision

Over the years, laser eye treatment or LASIK has made an enormous difference to people with near-sight, far-sight and astigmatic vision problems. It's a difference that has changed their quality of life as well as their quality of vision.

A giant leap in laser refractive surgery now aims at trying to improve upon patient's vision both quantitatively and qualitatively. A new instrument called the aberrometer has been developed which would map the imperfections (aberrations) of the eye. These aberrations would now be removed using the laser.

What is Zyoptix-100?

Zyoptix – 100 is a much more advanced and sophisticated form of LASIK. It is a wavefront guided LASIK or customized LASIK. Its highly sophisticated technology allows the surgeon to correct not only glasses numbers but the aberrations in the eye. It thus offers personalized & customized vision solution for the patients.

How Zyoptix – 100 works?

Zyoptix -100 is based on the Wavefront technology. Wavefront is a known technology that has only recently been applied to human vision. Astronomers at NASA have used this in the past to map the surface of moon and various other planets. In Zyoptix - 100, wavefront is actually used in two separate ophthalmic events. The first is to evaluate the existing aberrations in the eye and second is to use what is learnt from the screening process in procedures like Zyoptix.

It is believed that even a normal eye, that most of us consider as an example of a perfect optical system has various aberrations (defects) and above all, like finger prints the aberrations vary from one individual to another. That means no two human beings will have same aberration patterns in their eyes. The Aberrations in an eye adversely affect the vision and the optical performance of the eye.

At this stage it will be interesting and informative to understand as to how Wavefront technology actually works. During the wavefront diagnosis, light is sent into the eye in a specific pattern, and then the light that gets reflected back from the eye is measured. Any difference between the pattern that was sent inside to what was measured is considered an Aberration (defect). These are mapped and form the basis of customized treatment.

Advantages of Zyoptix over Lasik:

This customization of Lasik produces superior vision. It gives a sharper vision with greater contrast sensitivity which is more apparent during night. It also can be done in previously lasered eyes. It can correct higher refractive errors as compared to the Lasik

The latest in ZYOPTIX is Zyoptix -100 which is even more personalized and specific because of its unique features:

What are the advantages of Zyoptix – 100?

1. Iris recognition:

Like your fingerprints no two irises are same and thus can be used to provide a unique identification. New Z-100 has a new feature that scans your iris during the Zywave measurement and maps entire iris generating a unique digital Zy-id for each eye. You can be 100% sure that you are receiving the correct treatment for that eye along with rapid automatic patient identification and treatment.

2. Eye Tracker:

The eye, in its natural state is always in constant motion. The multidimensional eyetracker guides the laser to the precise areas in the cornea that needs correcting. In the event that the patients eye moves during the procedure, the eyetracker forces the laser to stop & refocus its target areas. This technology greatly enhances the safety factor of LASIK.

3. Tissue saving software: This allows the laser treatment in patients with thin corneas

Zyoptix-100 thus offers personalized and customized Lasik laser vision solution for the patients. It also holds the potential to deliver 'Eagle eye vision' to the mankind.
