



Photorefractive Keratectomy (PRK)

Until recently, if you were one of the millions of people with a refractive error-light rays not focusing precisely on the retina-eyeglasses and contact lenses were the only options for correcting vision. But with the arrival of refractive surgery, some people may have their vision corrected through surgery. Photorefractive keratectomy (PRK) is one of several refractive surgery procedures used by ophthalmologists to permanently change the shape of the cornea to improve the way it focuses light on the retina.

PRK is an outpatient procedure, done under topical anesthetic eyedrops. It takes about fifteen minutes. The epithelium, the outer cell layer of the cornea, is removed with alcohol or a laser. An excimer laser, which produces ultraviolet light and emits high-energy pulses, is used to remove a thin layer of corneal tissue. Your ophthalmologist enters your vision correction information in a computer and the laser beam vaporizes the surface of the cornea up to that precise depth. By breaking the bonds that hold the tissue molecules together, your cornea is reshaped, correcting the refractive error. Because no incisions are made, the procedure does not weaken the structure of the cornea.

Immediately following surgery a bandage contact lens is placed on the eye. After PRK vision is blurry for 3 days to one week. The patient is given several oral and topical (eyedrop) medications during the recovery period to ease pain, prevent infection and reduce swelling. It may take a month or longer to achieve one's best vision but most patients return to their normal activities within one week. Patients may be on eyedrops for up to three months.

Possible complications of PRK surgery include undercorrection, overcorrection, poor night vision and corneal scarring. Permanent vision loss is very rare. In recent studies monitored by the FDA, 95% of eyes were corrected to 20/40, the legal limit for driving without corrective lenses in most states.

To be a candidate for the procedure you must have a stable and appropriate refractive error, be free of eye disease, be at least eighteen years old and be willing to accept the potential risks, complications and side effects of PRK.