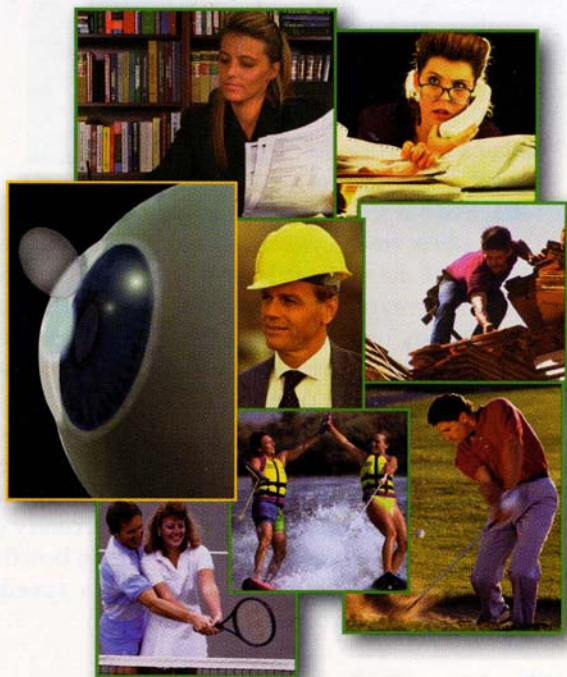


L A S I K



LASER VISION CORRECTION
for Nearsightedness,
Farsightedness & Astigmatism

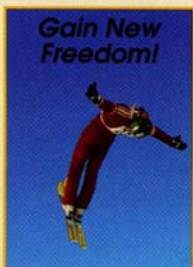
**Discover clear vision
without glasses or
contact lenses**

LASIK LASIK LASIK LASIK

Performed since the early 1970's, refractive surgery procedures improve vision due to nearsightedness (myopia), farsightedness (hyperopia) and astigmatism. With the advent of the laser for



refractive surgery (photorefractive keratectomy or PRK), a new era in eye care is unfolding. It has been found that the excimer laser procedure combined with the creation of a corneal flap (Lamellar Keratoplasty or LK) is an excellent technique for



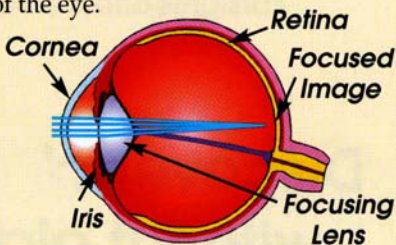
reshaping the surface of the cornea to correct nearsightedness and astigmatism. The combination of both procedures is called Laser Assisted In-Situ Keratomileusis (LASIK) and offers the accuracy of refractive lasers with the benefits of the LK procedure's speedy recovery.

What is a Refractive Error?

In normal vision, light enters the eye through the cornea and is focused at a single point on the retina at the back of the eye.

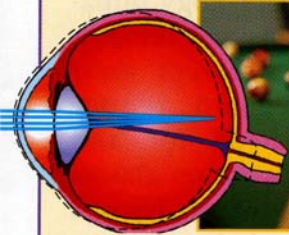
With a refractive error, there is a defect in the way light passes through the eye. Light rays do not

refract (bend) properly to achieve a single focus point. Instead, light rays focus in front of the retina (nearsighted), behind the retina (farsighted), or at two different points (astigmatism).



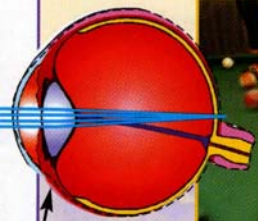
Refractive errors usually result from a defect in the length of the eye or shape of the cornea.

Myopia or Nearsightedness



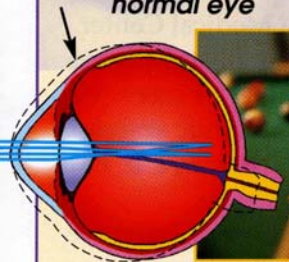
Close objects are seen clearly but distant objects appear blurred. Myopia is caused by a steeply curved cornea or elongated eye.

Hyperopia or Farsightedness



Close objects are blurred and distant objects are clear. Hyperopia is caused by a short eye.

Dotted lines show shape of normal eye

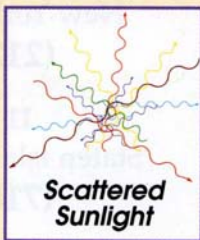


Astigmatism

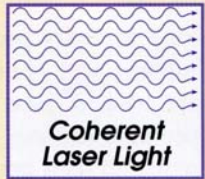
Objects at all distances appear indistinct and distorted. Astigmatism is caused by an unevenly curved or warped cornea.

What is Laser Light?

Normal light from the sun or a light bulb is made up of a range of energy that scatters and radiates in all directions. A rainbow shows the spectrum of visible colors, from red to violet, that make up normal or white light. Laser light is not radiation, as are x-rays, cosmic rays and gamma rays. It is made of a single color or wavelength

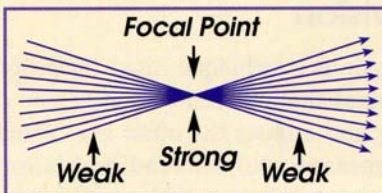


of light, with all of the light rays traveling in the same direction (coherent light). The light itself is safe and does not become effective in medical treatment until it becomes highly concentrated through the use of special mirrors and lenses.



The Excimer Laser

A laser contains a device to create light in a similar manner as a light bulb, but more sophisticated and precise. With an excimer laser, when an electric current is passed through a tube containing a special gas (argon fluoride), a reaction occurs that produces ultraviolet light energy. The direction, focal point, intensity and release of the light from the tube are precisely controlled by the surgeon and a computer. As laser light is produced, it passes through a system of mirrors that result in all light rays traveling in one direction (coherent light). When light first exits the laser it is relatively weak, but then the light passes through a system of lenses which focus the energy to a fine point. As it gets closer to the focal point, the energy becomes more concentrated and the beam gains strength. Laser light reaches its maximum strength at the focal point, the point where all the rays converge. The strength of the beam rapidly diminishes after passing the focal point, and can no longer affect other tissues in the eye.



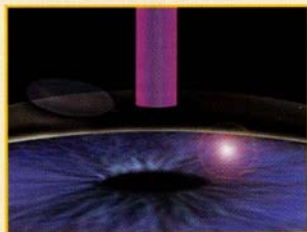
The LASIK Procedure

A special instrument (a microkeratome) is applied to the cornea, creating a thin flap of corneal tissue. The flap remains attached to the eye at one end. Next, the laser is used to reshape the cornea. The flap is then put back into position and the procedure is complete.



Reshaping Vision

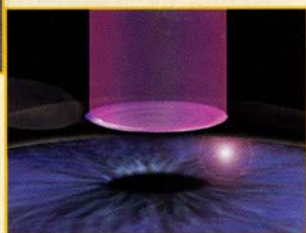
Instead of using heat to alter tissues like other lasers, an excimer laser beam breaks the bonds that link tissues together with only minimal effect on surrounding tissues. These unique properties allow the excimer laser to be used in the LASIK procedure to reshape tissue immediately beneath the surface of the corneal flap. After LASIK, light rays focus more precisely on the retina.

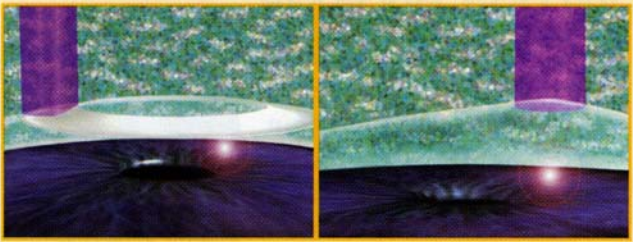


A computer, programmed by the doctor for each person's own correc-

tion factors, controls the laser and the reshaping of the cornea. The procedure is performed

while the patient lies on her/his back. In treating myopia, as shown above, the laser segment of the procedure starts with a narrow diameter beam. As the laser beam expands or moves, a tiny lens-shaped disc is created. The focal point of the beam only penetrates the cornea about two-thousandths of an inch (about half the thickness of a human hair). Only a small area in the center





With hyperopia (left), the shape of the cornea is essentially steepened to allow images to correctly focus on the retina. For astigmatism (right), the laser beam scans back and forth along the cylindrical axis to reshape the eye.

of the cornea is treated, essentially producing a concave lens over the visual axis. Finally, the corneal flap is replaced (without stitches) and the LASIK procedure is complete.

After LASIK

After LASIK, the majority of people are able to pass a drivers license test without glasses or contacts. Many patients report an immediate improvement within the first day. For others, vision may be blurry and fluctuate for several weeks or longer. Since an individual's situation, healing powers and tissues are unique, not everyone should expect to achieve full visual correction. People with high to severe levels of myopia or astigmatism may require another procedure to achieve the desired results. People with extremely strong glasses for example, may end up with significant correction, but still need mild to moderate strength lenses part of the time for some activities.

Outpatient Surgery

LASIK is performed on an outpatient basis using an "eye drop" anesthetic to numb the eye for painless surgery. LASIK normally takes less than 30 minutes and the patient leaves shortly after the procedure. An eye patch may be placed on the eye

for temporary protection and to keep you from rubbing your eye in your sleep. Medication drops are used for pain relief, to prevent infection and promote healing. After LASIK, patients usually return to their normal lifestyle quickly with very few restrictions during the short healing period.

Is LASIK for Everyone?

To be eligible for LASIK the eye must be in good health and vision must be stable. However, some people are better candidates than others and consultation with the doctor prior to surgery is important to determine estimated benefits and possible complications.

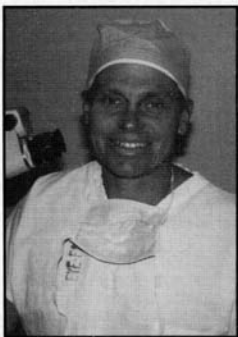
Reading Glasses after Age 40

Presbyopia is a normal part of the aging process and usually occurs about the age of 40. As the body matures, the normally soft, flexible lens becomes hard and has difficulty focusing on close objects. Reading vision becomes blurred and difficult. Bifocals and reading glasses, which aid the eye in focusing on close objects, are used to treat presbyopia.

Since the laser has no effect on the lens of the eye and cannot improve vision due to presbyopia, people who have had LASIK and have or develop presbyopia will need reading glasses for small print.

Monovision

Monovision is a technique (used for people with presbyopia) that corrects vision in one eye for distance and adjusts the other eye (usually the non-dominant eye) for reading vision. Your pre-surgery testing and discussions with the doctor will help determine if monovision is an option for you to consider.



JOHN C. FLANAGAN, M.D.

LASIK is an exciting new technology utilizing lasers and computers to correct your vision, and reduce your need for and dependence on glasses and contact lenses. Near-sightedness, farsightedness, and astigmatism can be treated by reshaping the cornea.

Dr. John Flanagan is uniquely qualified to be your LASIK surgeon. He was sponsored by the National Science Foundation to study computer science at Columbia University, and received a National Institute of Health National Library of Medicine Fellowship for Computers in Medicine at the Mount Sinai Medical Center.

Dr. John Flanagan received postgraduate training in surgery at Columbia University's Presbyterian Hospital, and ophthalmic anterior segment surgery at the New York Eye & Ear Infirmary.

He has been active in refractive or laser eye surgery for more than 15 years, and has published articles regarding computer-aided and refractive eye surgery.

JOHN C. FLANAGAN, M.D., F.A.C.S.

950 Fifth Avenue
New York, New York 10021
(212) 535-8783

11 Ralph Place
Staten Island, New York 10304
(718) 442-2711

www.visiondivision.net