For Michael Vrabec, M.D., F.A.C.S., S.C. refractive eye surgery is an integral part of his daily schedule. He works side by side with James Syverud, M.D., S.C. of Valley Eye Associates in Appleton.

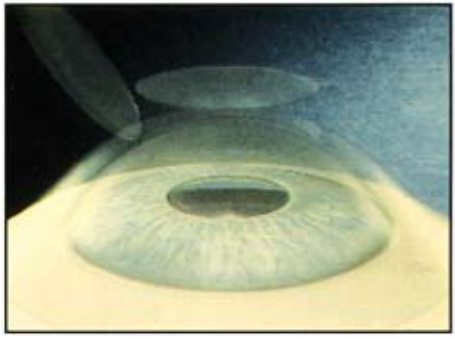
REFRACTIVE SURGERY TECHNIQUES ARE THEY FOR YOU?

By Diane Garrod

Dr. Vrabec helps patients make the right choice when they decide to go ahead with a refractive surgery technique to improve their eyesight. The two major refractive non-laser surgery techniques, says Dr. Vrabec, are Radial Keratotomy (RK) and Automated Lamellar Keratoplasty (ALK). Although both are similar in concept, candidates for these procedures are different explains Vrabec. In similarity, refractive surgery is any surgery to reduce or eliminate refractive errors of nearsightedness, farsightedness or stigmatism. A candidate for RK is one who may experience difficulty wearing glasses and contact lenses, says Vrabec. Generally, he says, the best candidates have low levels of myopia (nearsightedness) (-1.50 to -6.00 diopters).

In the procedure, Radial Keratotomy (RK) uses a diamond shaped knife to make incisions to change the shape of a cornea that is too steep and allow light rays to move to the back of the eye, the retina.

In the past three years ALK has gained popularity.



In this procedure, ALK actually cuts away part of the cornea. For instance, if the cornea is too steep, tissue is removed (as depicted in the photo above) and the light rays are directed to the back of the eye.

There are two types of ALK surgery, says Dr. Vrabec: 1) raises the flap of cornea to remove a disc of tissue and flatten the cornea in a nearsighted individual and 2) surgery to steepen the cornea in a farsighted individuals where the cornea is not steep enough.

The device used in this procedure is similar to the action of a carrot peeler only revolving at 10,000 cycles per second, says Dr. Vrabec.

Although the idea of refractive eye surgery was conceived in Japan, it was abandoned due to complications and later developed in Russia, Vrabec explained. Since then, the procedure has been enhanced and improved upon with better knives and the addition of computer technology to "map" out the contour of the eye to assist doctors in diagnosis.

Patients actually find the prospect of surgery quite exciting, said Dr. Vrabec. My challenge, he said, is not to talk patients in or out of the surgery, but to present the options in a way that patients can understand. My challenge is in educating patients, to let them know what could happen, good and bad.