

Chapter 4

Computerized Corneal Topography

YOUR CORNEA DELIVERS 70 PERCENT of the refracting (light bending) power of the eye. This front portion of the eye is the primary factor in focusing light on the retina at the back of the eye. When the cornea is too steep, or too flat, or is in some irregular shape, the focus does not fall properly on the retina. The result is blurred vision. Through minor modifications to the shape of the cornea, it is possible to refract light properly on the retina for clear, improved vision.

The cornea is the most pliable tissue of the eye, which is why eye doctors are working diligently to develop newer, more efficient methods of reshaping it in order to improve unaided vision.

Computers

In the past decade computerized corneal topography has been utilized to assist eye doctors in measuring the curvature and topography of the cornea. Since the cornea is the most moldable component of the eye, it must be measured accurately for best reshaping results. This measuring procedure is called corneal mapping or corneal topography. Using a computerized camera and a computer the subtle topographic differences in the cornea are analyzed for the doctor prior to commencing the GM program of corneal reshaping. Mapping is done with a highly sophisticated computerized instrument called a Corneal Topographer.