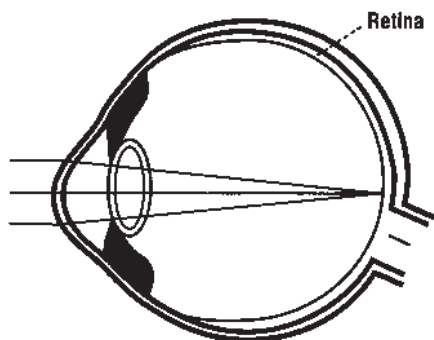


## Chapter 3

# Refractive Errors and Your Eyes

**REFRACTIVE ERRORS IS THE TERM USED** to refer to disorders that are related to how your eye focuses light. The word refraction is used to describe the way light is focused by your eye. The three factors that influence how your eye refracts (bends) rays of light are the curvature of your cornea, the power of your lens, and the length of your eye.



*Normal eyesight is present when light rays strike the retina, causing a clear image to form.*

### **Myopia (nearsightedness)**

Myopia occurs when the curvature of the cornea is too steep and/or the length of the eye is too long. As the light rays pass through the steeper central cornea, they are refracted too much and come to a point of focus in front of the retina. This creates a blurred image. Patients with myopia experience blurred vision at a distance, but may see well close up.

The curvature of the cornea and the axial length of the eyeball are responsible for myopia. With Gentle Molding, contact lenses are used to reduce the corneal curvature and thus the myopia, which improves unaided visual acuity.