

Refractive Disorders

The eye normally creates a clear image because the cornea and lens bend (refract) incoming light rays to focus them on the retina. The shape of the cornea is fixed, but the lens changes shape to focus on objects at various distances from the eye. By becoming thicker, the lens allows near objects to be focused; by becoming flatter, the lens allows objects farther away to be focused. A refractive error occurs when the cornea and lens cannot focus the image of an object sharply on the retina.

Refractive errors may be myopia (nearsightedness), hyperopia (farsightedness), astigmatism (irregular curvature), or presbyopia (aging eye). Refractive errors can be treated with eyeglasses, contact lenses, or refractive surgery.

