

Common Eye Symptoms

Blurred Vision

Errors of Refraction

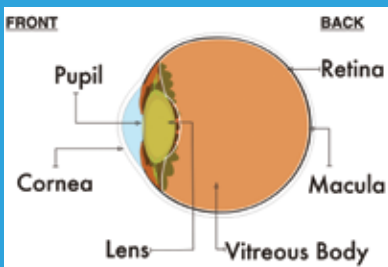
If the curvature of the cornea, which determines its focusing power, and, the length of the eye do not match, the image will not focus on the retina. The possible errors of refraction include: myopia (near-sightedness), hyperopia (far-sightedness), and, astigmatism. These problems can be corrected with spectacles, contact lenses, lasers or surgery.

Corneal Problems

Irregularities and opacities of the cornea will lead to imperfectly focused images. Light will be scattered away from the correct focus causing glare or haze such as with corneal abrasions, scars, and swelling (edema).

Optical System of the Eye

To perceive images clearly, light entering the eye has to be bent to a sharp focus onto the surface of the retina which lies at the back of the eye in a process called refraction. The main components of the eye that are responsible for refraction are the transparent cornea in front of the eye and the ordinarily transparent natural lens behind the pupil.



Irregularities in the shape of the cornea will produce astigmatism even if they are not in the center. Congenital or acquired weakness of the cornea can cause it to bulge (ectasia) and appear cone-shaped (keratoconus). The exaggerated corneal curvature leads to myopia and later to severely irregular astigmatism. Dryness of the surface of the eye can also reduce clarity of the cornea.

Cataracts

The lens of the eye can develop opacities especially with aging and trauma. These opacities are called cataracts. Cataracts prevent some of the light from reaching the retina making images cloudy and hazy with loss of detail.

Diseases of the Retina

The retina is a thin membrane composed several thin strata of cells among which is a compactly arranged photosensitive cell layer. Significant damage to the cells or the organization of the retina especially in the central area, the macula, brings about profound blurring. There could be dark spots, wavy vision, image distortion, discoloration and reading difficulties from a variety of diseases that affect the macula (macular edema, hole, or degeneration) or the entire retina (retinal detachment or diabetic retinopathy).

Vitreous Degeneration

Black, grey, whitish or cloudy objects floating in and out of the field of vision may blur vision if these opacities in the normally transparent vitreous body cross the central visual axis.

Common Eye Symptoms

Blurred Vision

Errors of Refraction

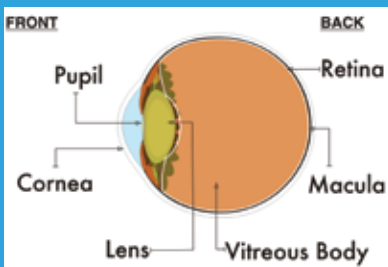
If the curvature of the cornea, which determines its focusing power, and, the length of the eye do not match, the image will not focus on the retina. The possible errors of refraction include: myopia (near-sightedness), hyperopia (far-sightedness), and, astigmatism. These problems can be corrected with spectacles, contact lenses, lasers or surgery.

Corneal Problems

Irregularities and opacities of the cornea will lead to imperfectly focused images. Light will be scattered away from the correct focus causing glare or haze such as with corneal abrasions, scars, and swelling (edema).

Optical System of the Eye

To perceive images clearly, light entering the eye has to be bent to a sharp focus onto the surface of the retina which lies at the back of the eye in a process called refraction. The main components of the eye that are responsible for refraction are the transparent cornea in front of the eye and the ordinarily transparent natural lens behind the pupil.



Irregularities in the shape of the cornea will produce astigmatism even if they are not in the center. Congenital or acquired weakness of the cornea can cause it to bulge (ectasia) and appear cone-shaped (keratoconus). The exaggerated corneal curvature leads to myopia and later to severely irregular astigmatism. Dryness of the surface of the eye can also reduce clarity of the cornea.

Cataracts

The lens of the eye can develop opacities especially with aging and trauma. These opacities are called cataracts. Cataracts prevent some of the light from reaching the retina making images cloudy and hazy with loss of detail.

Diseases of the Retina

The retina is a thin membrane composed several thin strata of cells among which is a compactly arranged photosensitive cell layer. Significant damage to the cells or the organization of the retina especially in the central area, the macula, brings about profound blurring. There could be dark spots, wavy vision, image distortion, discoloration and reading difficulties from a variety of diseases that affect the macula (macular edema, hole, or degeneration) or the entire retina (retinal detachment or diabetic retinopathy).

Vitreous Degeneration

Black, grey, whitish or cloudy objects floating in and out of the field of vision may blur vision if these opacities in the normally transparent vitreous body cross the central visual axis.