

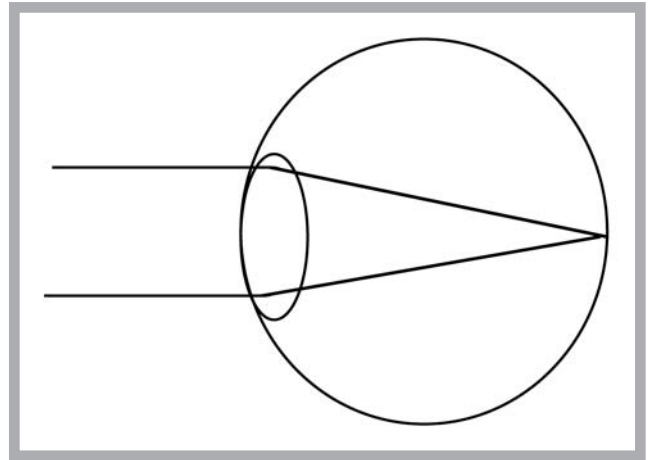
## Refractive Conditions

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### Normal (**Emmetropic**) eye

The condition of the eye that is free from refractive error. The eye that needs no lens correction for distance.

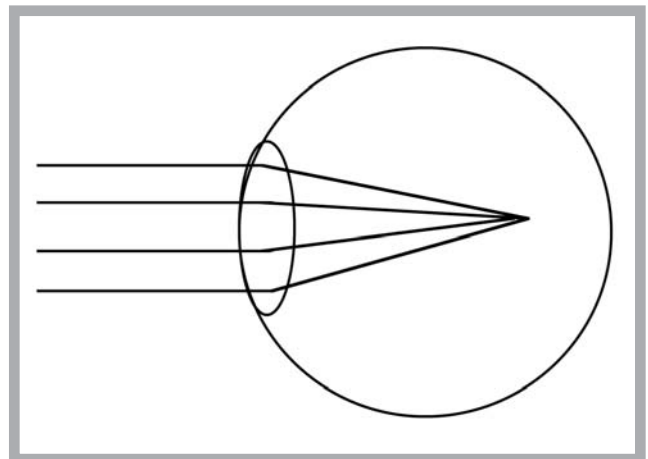
Light rays enter the eye through the lens and are focused *on* the **retina**.



### Nearsighted (**Myopic**) eye

The condition of the eye for which correction is needed to see objects in the distance. It results when the eye has parallel beams of light coming to focus in *front* of the **retina**.

Myopia is corrected with a (-) minus lens which diverges light.



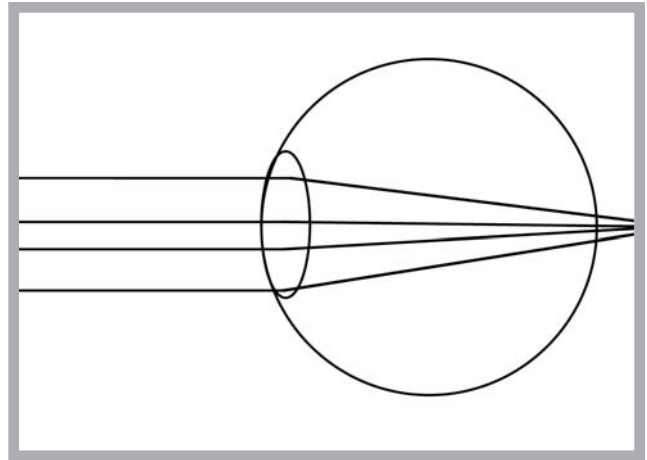
## Refractive Conditions

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### Farsighted (**Hyperopic**) eye

The condition of the eye for which correction is needed to see near objects. It results when the eye has parallel beams of light coming to focus *behind* the **retina**.

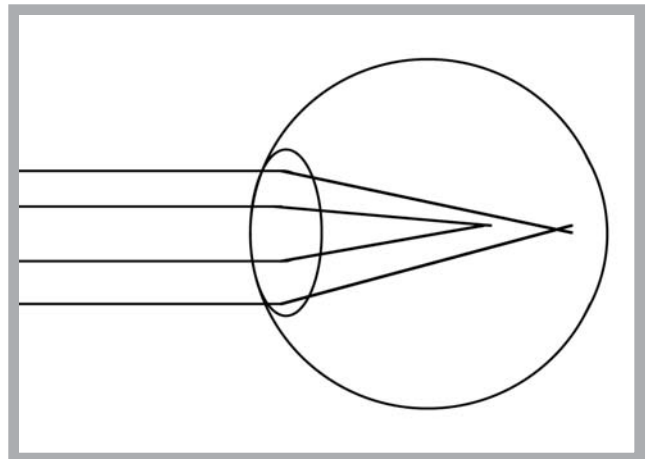
Hyperopia is corrected with a (+) plus lens. Plus lenses converge light.



### Astigmatism

The inability of the eye to bring light to focus at a single point because its refractive error is not uniform in all meridians. Therefore, the rays focus on *different parts* of the **retina**. Depending on the amount of correction needed, a person with astigmatism might have difficulty seeing clearly at any distance.

To correct for astigmatism, a cylindrical surface is cut into the backside of the lens.



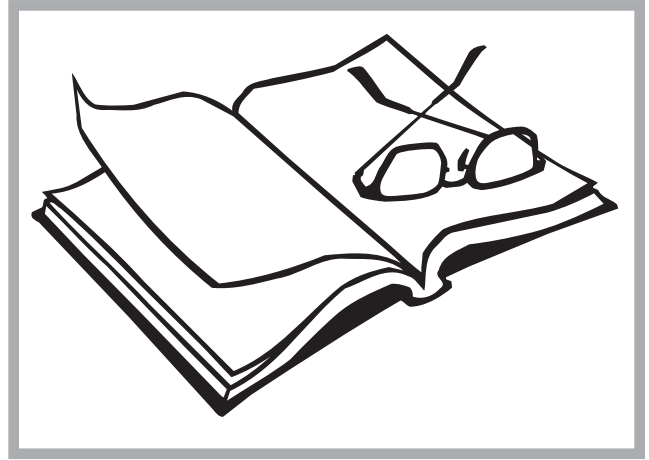
## Refractive Conditions

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### Presbyopia\*

The gradual lessening of accommodative ability due to age. As people enter their 40s, they begin to have difficulty reading as their eyes are unable to focus at near.

Presbyopia is corrected with a multifocal lens.



\*In Latin, presbyopia means "old sight."