

Children's Vision Simulator Card



Farsightedness (Hyperopia)

Distant objects are clear while near objects may be blurry.



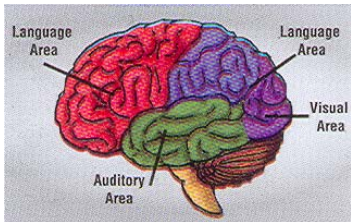
Nearsightedness (Myopia)

Distant objects are blurry while near objects are clear.



Astigmatism (Hyperopia)

Distant objects are clear while near objects may be blurry.



Dyslexia

A complex processing problem that involves the brain's vision, hearing and language centers

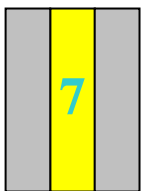
If lazy eye goes undetected, permanent, uncorrectable central vision loss can occur

Lazy Eye (Amblyopia)

Distant and near objects are blurry in one eye even with glasses



Normal color vision view

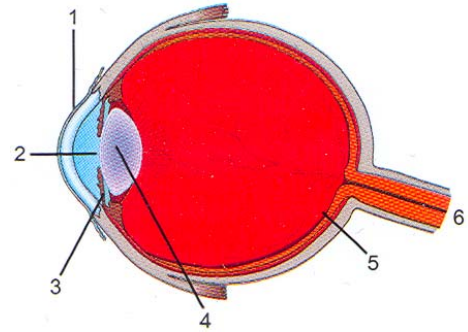


Abnormal color vision view

Red/Green Color Blindness

This is most often found in boys. Red and green colors are seen as the same shade of grey.

How We See



Light first passes through the **cornea (1)**, a transparent tissue that lies in front of the iris. Light then passes through the **pupil (2)**, the black center of the eye surrounded by the **iris(3)**. The iris gives our eyes color. It is a muscle that gets larger and smaller to let in different amounts of light. Light then reaches the **lens (4)** which changes shape to focus light on the **retina (5)**, the back part of the eye made up of tiny light sensitive structures called **rods and cones**. Rods see black and white; cones only see color. Rods provide night time vision; cones provide daytime vision. Finally, the **optic nerve (6)** sends the image to the brain where it is processed.

The Importance of Eye Exams for Children

- 1 out of 4 children has an undetected eye problem..
- 3 out of 100 children have a lazy eye. Half of those go undetected, resulting in permanent, preventable vision loss.
- Only 1 out of 7 children has a comprehensive eye examination by the start of school.
- Only 1 out of 2 teenagers has an eye exam by high school graduation.

Optometrists are primary eye care doctors who diagnose and treat eye diseases and vision disorders.