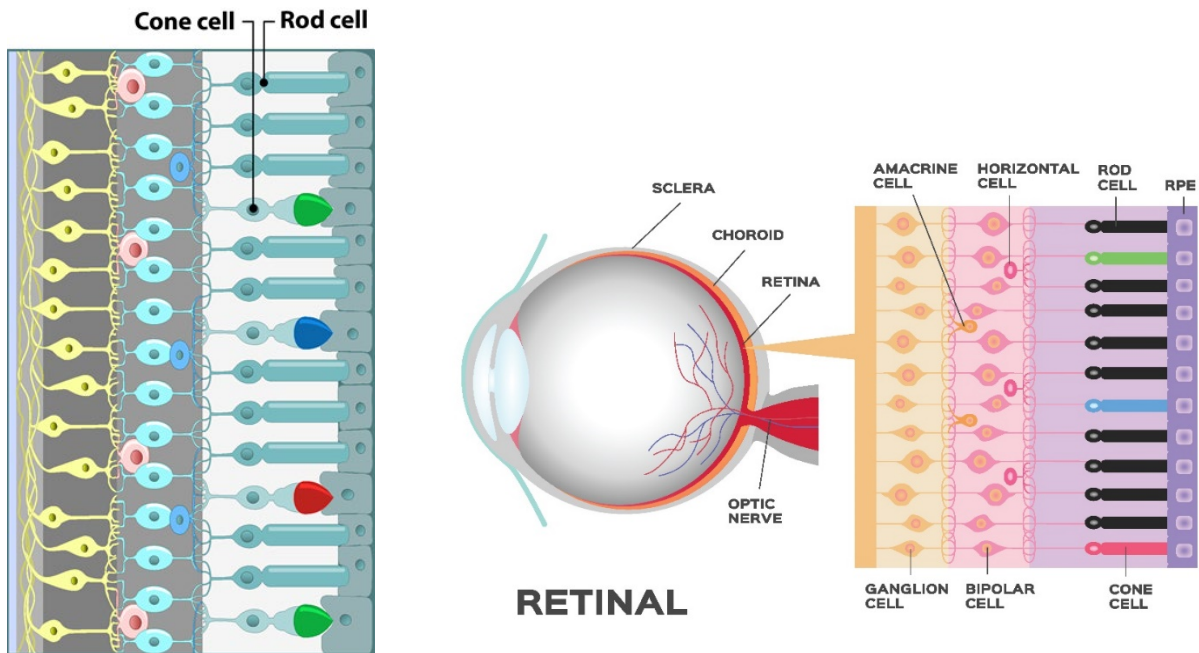


How Your Eyes Work

When light rays reflect off an object and enter the eyes through the cornea (the transparent outer covering of the eye), you can then see that object.



The cornea bends, or refracts, the rays that pass through the round hole of the pupil. The iris (the colored portion of the eye that surrounds the pupil) opens and closes, making the pupil bigger or smaller. This regulates the amount of light passing through.

The light rays then pass through the lens, which changes shape so it can further bend the rays and focus them on the retina. The retina, which sits at the back of the eye, is a thin layer of tissue that contains millions of tiny light-sensing nerve cells. These nerve cells are called rods and cones because of their distinct shapes.

Cones are concentrated in the center of the retina, in an area called the macula. When there is bright light, cones provide clear, sharp central vision and detect colors and fine details.

Rods are located outside the macula and extend all the way to the outer edge of the retina. They provide peripheral or side vision. Rods also allow the eyes to detect motion and help us see in dim light and at night.

These cells in the retina convert the light into electrical impulses. The optic nerve sends these impulses to the brain, which produces an image.

In the following schematic illustration, click on the names to highlight the parts of the eye.