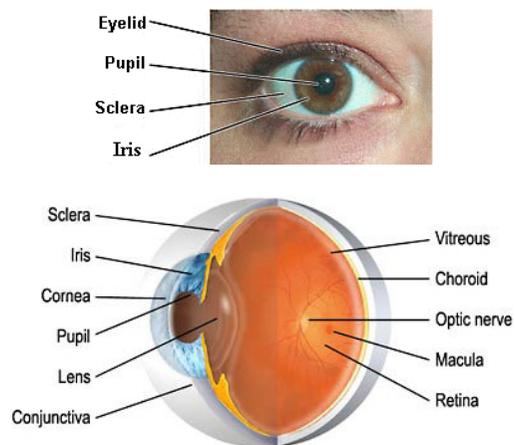


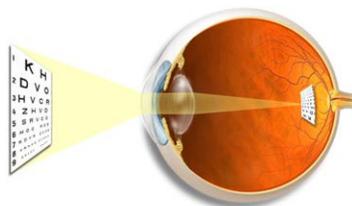
Eye Anatomy

A guide to the many parts of the human eye and how they function.

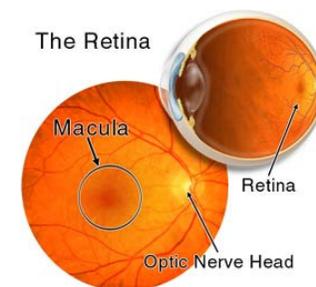
The ability to see is dependent on the actions of several structures in and around the eyeball. The graphic below lists many of the essential components of the eye's optical system.



When you look at an object, light rays are reflected from the object to the **cornea**, which is where the miracle begins. The light rays are bent, refracted and focused by the cornea, **lens**, and **vitreous**. The job of the lens is to make sure the rays come to a sharp focus on the **retina**. The resulting image on the retina is upside-down. Here at the retina, the light rays are converted to electrical impulses which are then transmitted through the **optic nerve**, to the brain, where the image is translated and perceived in an upright position!



Think of the eye as a camera. A camera needs a lens and a film to produce an image. In the same way, the eyeball needs a lens (cornea, crystalline lens, vitreous) to refract, or focus the light and a film (retina) on which to focus the rays. If any one or more of these components is not functioning correctly, the result is a poor picture. The retina represents the film in our camera. It captures the image and sends it to the brain to be developed. The **macula** is the highly sensitive area of the retina. The macula is responsible for our critical focusing vision. It is the part of the retina most used. We use our macula to read or to stare intently at an object.



Illustrations by Mark Erickson

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