

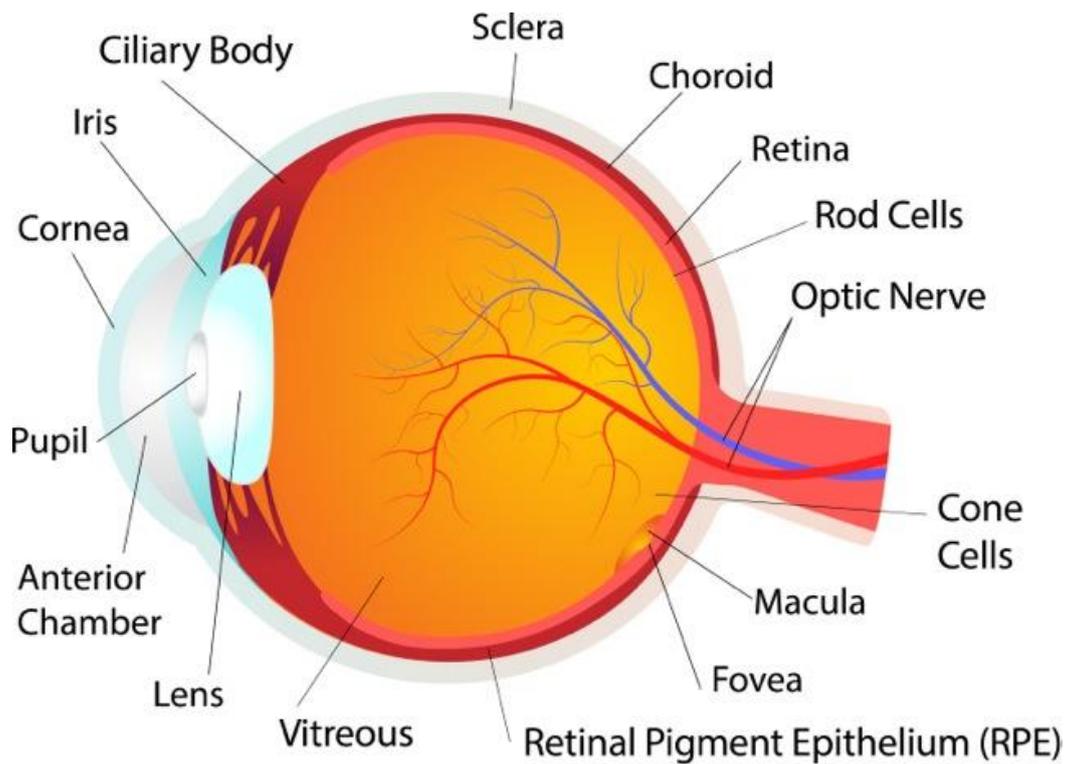


**RETINA**  
australia

### **Anatomy of the eye**

The eye is one of the most complex organs in the body. There are many parts that make up the eye, all of which are necessary for the eye to function properly.

Light rays enter the eye through the cornea, pupil and lens. These light rays are focussed onto the retina, the tissue lining the back of the eye. The retina converts light rays into impulses which are then sent through the optic nerve to the brain, where they are recognised as images.



## Parts of the Eye

**Cornea:** The cornea is the transparent outer layer of the eye that refracts, or redirects, light to a sharp focus at the retina.

**Lens:** The lens is a transparent structure inside the eye that works with the cornea to focus. It fine-tunes images and allows us to see at various distances.

**Iris:** The iris is the visible outer layer that gives us our eye colour. It adjusts the size of the pupil, determining how much light reaches the retina.

**Pupil:** The pupil is the hole in the centre of the eye that lets light in. It gets smaller in bright conditions to let less light in and bigger in dark conditions to let more light in.

**Vitreous:** The clear, jelly-like substance found in the middle of the eye that helps to regulate eye pressure and shape.

**Sclera:** The sclera is the white outer coat of the eye, surrounding the iris.

**Optic Nerve:** The optic nerve carries information about what you see from the retina to the brain.

**Retina:** The retina is a light-sensitive tissue that lines the back of the eye. It consists of rod and cone cells. These cells collect the light signals directed onto them and send them as electrical signals to the optic nerve at the back of our eye.

**Macula:** The macula is the central part of the retina that allows us to achieve high-quality vision and accounts for our ability to read, to drive safely and to see the world in detail and colour. The macula is yellow due to the collection of pigment from coloured fruit and vegetables we eat as part of our daily diet.

**Fovea:** The fovea is the centre of the macula which provides the sharp vision.

**Rod Cells:** Rod cells are concentrated around the edge of the retina. They help us to see things that aren't directly in front of us, giving us a rough idea of what is around us. They help us with our mobility and getting around, by stopping us from bumping into things. They also enable us to see things in dim light and to see movement.

**Cone Cells:** Cone cells are concentrated in the centre of our retina where the light is focused by the cornea and lens. This area is called the macula. Cone cells give us our detailed vision which we use when reading and looking at people's faces. They are also responsible for most of our colour vision.

**Retinal Pigment Epithelium (RPE):** The retinal pigment epithelium is a layer of cells located just outside the retina. It is attached to the choroid.

**Choroid:** The choroid is a layer containing blood vessels. It lines the back of the eye, and is located between the retina and the sclera.