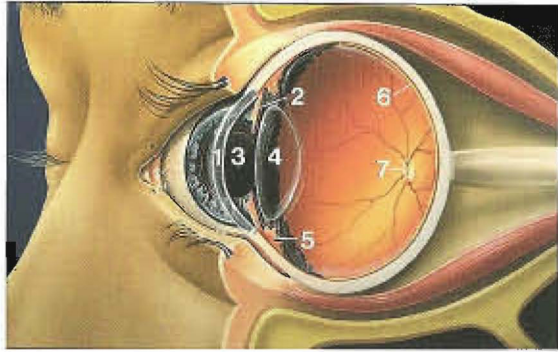


How do your eyes work?



... much like a camera, by focusing light rays to form an image.

1 - cornea

The clear cover at the front that lets light in.

2 - iris

Colored ring that opens and closes to adjust amount of light entering the eye.

3 - pupil

Hole in iris, through which light enters the eye.

4 - lens

Transparent structure that focuses light rays on the retina.

5 - ciliary muscles

Muscles inside the eye that change the lens shape to focus images on the retina.

6 - retina

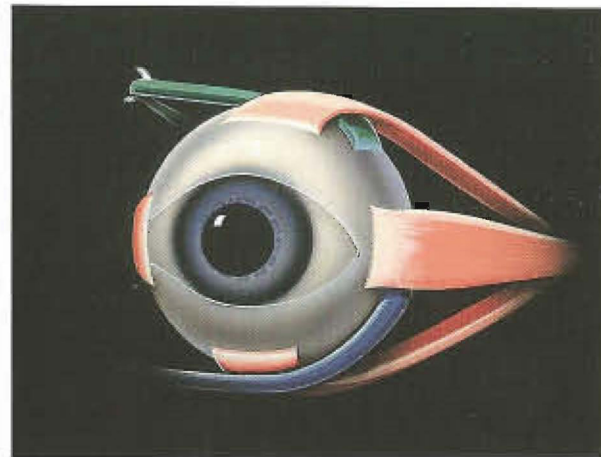
Lining at the back of the eyeball that receives the images focused by the lens.

7 - optic nerve

Nerve at the back of the eye that transmits images from the retina to the brain.

What keeps your eyes parallel, even when they move?

Six muscles are attached to the outside of each eyeball. These muscles, with the help of the brain, maintain proper eye alignment.



- Each paired set of muscles is balanced, keeping eyes parallel.
- Each set works as a team: one pair pulls while another pair relaxes.
- The muscles turn the eyes in all directions and keep them parallel at the same time.

How does the brain put the images from both eyes together?

- 1) Each eye looks at the same object at the same time.
- 2) Each eye sees the object from a slightly different angle and sends a slightly different image to the brain.
- 3) The brain is able to blend the two very similar pictures into one -- a process called fusion.

Fusion allows us to...

- perceive one image from the two sent by the eyes
- perceive the image as having depth
- judge the relative distance between things

