

ANATOMY OF THE EYE

1. Conjunctiva

- Mucous membrane lining eyelid & covering eyeball.
- Fuses with eyelids; prevents foreign objects getting behind eye.

2. Cornea

- Outer, front layer of the eye.
- Focuses incoming light by a fixed amount.

3. Sclera

- Opaque outer layer; does not permit light entry.
- Lines border to prevent light from entering

4. Iris (Colored Part)

- Muscles contract/relax to determine pupil size.
- Regulates light entering eye, optimizing retina's discernment.

Analogy: Camera Lens.

5. Lens

- Composed of several transparent layers.
- Shape changes to focus on objects at varying distances.

Accommodation: The process of the lens adjusting its shape for

Light Pathway: Light → Lens → Vitreous Humor (fluid-filled reation behind lens).

6. Retina (Furthest Back Layer)

- Region where photoreceptor cells are located.
- **Fovea:** Central region; high concentration of cone cells.
- **Periphery:** Contains rod cells; most sensitive to light.

7. Optic Disc

- Point where blood vessels enter and leave the eye.
- Optic nerve exits here, carrying visual info to brain.

MOVEMENTS OF THE EYE

Eyes suspended in bony sockets at skull front, called **orbits**.

Six extraocular muscles attach to sclera to rotate & hold eye.

Types of Eye Movements:

- **Saccadic:** Rapid, jerky shifts in gaze from one point to another.

Pursuit: Maintain focus on an object that is moving.
ORGANIZATION OF THE RETINA

Visual Information Pathway:

Light detection leads to visual information propagating in this sequence:

Photoreceptor Cells →

Bipolar Cells → Retinal

Ganglion Cells → Brain

(Note: PORB -

Photoreceptor, Bipolar,

Retinal Ganglion, Brain)

Light must pass through cell layers (e.g., bipolar, ganglion)

before reaching

photoreceptor cells where it is