EYE: ANATOMY & FUNCTION (1/3)

ANATOMY OF THE EYE (Part 1)

1. Conjunctiva

Mucous membranes that line the eyelid and cover the eyeball. It fuses with the eyelids, preventing objects from getting behind the eye.

2. Cornea

The outer, front layer of the eye. It focuses incoming light by a fixed amount.

3. Sclera

An opaque layer (the "white" of the eye) that does not permit the entry of light. It lines the border to prevent light from entering elsewhere.

4. Iris (colored part)

Controls pupil size through muscle contraction and relaxation. This determines how much light enters the eye, optimizing the retina's ability to discern what it sees.

EYE: ANATOMY & FUNCTION (2/3)

ANATOMY OF THE EYE (Part 2)

5. Lens

Composed of several transparent layers. Its shape changes to focus on near or far objects, a process called **accommodation**. Light passes through the lens before crossing the vitreous humor fluid.

6. Retina (furthest back)

The region where photoreceptor cells are located.

> **Fovea:** The central region of the retina, which contains cone cells for high-acuity color vision.

> **Rod Cells:** Located in the periphery of the retina and are most sensitive to light (for low-light vision).

7. Optic Disc

The point where blood vessels enter/leave the eye, and where the optic nerve exits to the brain. This area contains no photoreceptors, creating a **blind spot**.

EYE: ANATOMY & FUNCTION (3/3)

MOVEMENTS OF THE EYE

The eyes are suspended in bony sockets called **orbits**. **Six extraocular muscles** attach to the sclera to rotate the eye and hold it in place.

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

> **Pursuit Movements:** Maintain focus on a moving object.

The blind spot is generally not noticed due to these constant movements and coordinated vision from both eyes.

ORGANIZATION OF THE RETINA

Visual Information Pathway:

How the signal travels to the brain.

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Photoreceptors → Bipolar Cells → Retinal Ganglion Cells → Brain
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Light Pathway:

The path light takes to reach the photoreceptors.

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Light Enters Eye → Retinal Ganglion Cells → Bipolar Cells → Photoreceptors
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