



Cerebral Cortex

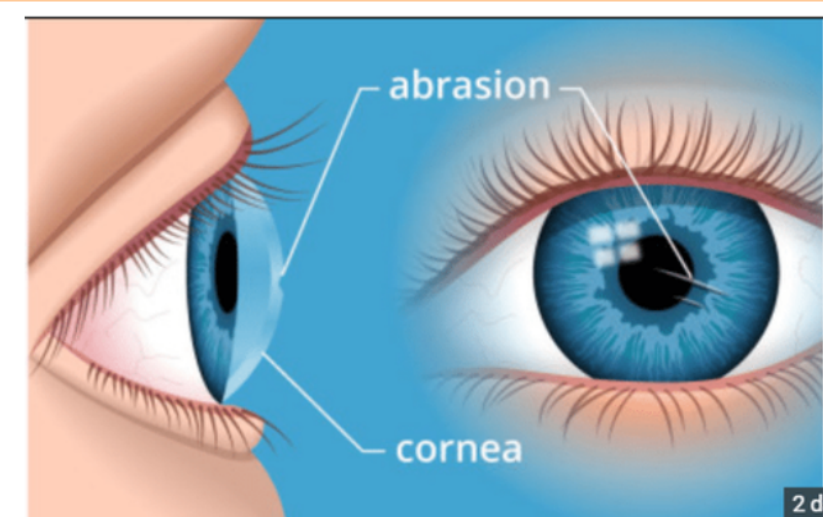
The outside layer of tissue surrounding the brain that is divided into two hemispheres (right and left) by the **Corpus Callosum**.

Transduction

The process of converting molecules or signals in the environment into **action potentials**.

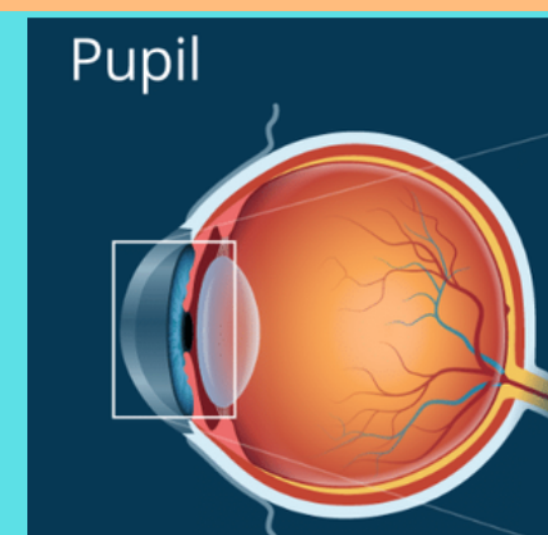
Cornea

The protective transparent membrane over the eye.



Pupil

The opening in the **iris** that allows light to enter the eye.



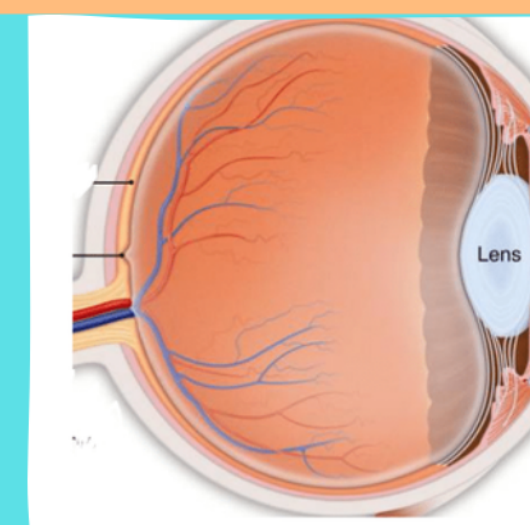
Iris

The colored part of the eye that dilates the **pupil** to change the volume of light exposure to the **retina**.



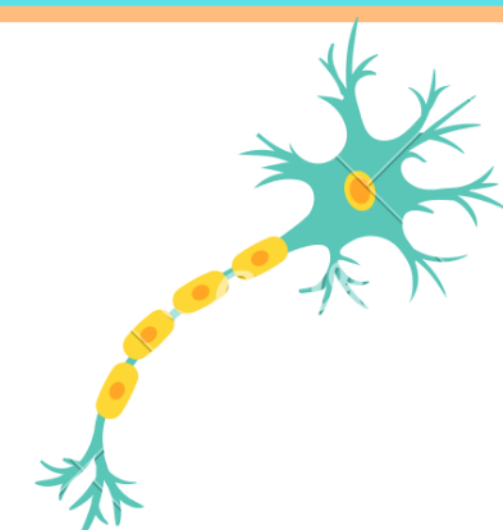
Lens

A part of the eye behind the **pupil** that expands and thins to focus light on the **retina**.



Optic Nerve

The neuron in the back of the eye that sends processed retinal data to the **Lateral Geniculate Nucleus** and then the **Primary Visual Cortex**



Photoreceptors

The first layer of the **retina** consisting of **rods** and **cones**

Rods

A type of **photoreceptor** that allow one to see dim to bright light.

Cones

Another type of **photoreceptor** that uses red, green, and blue to form 16,777,216 different colors!

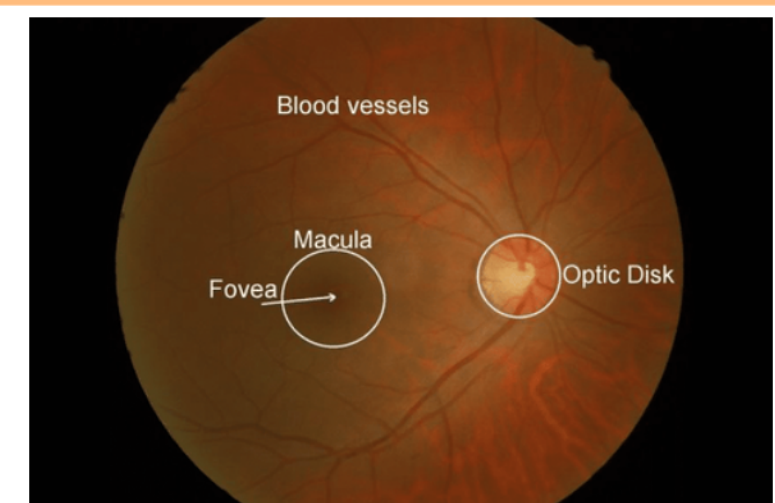
Fovea

The center of the **retina** in which **cones** are most closely packed, resulting in sharper vision.



Macula

The area directly bordering the **fovea** which is key in reading and driving. Visual acuity (clarity) is highest in this region.



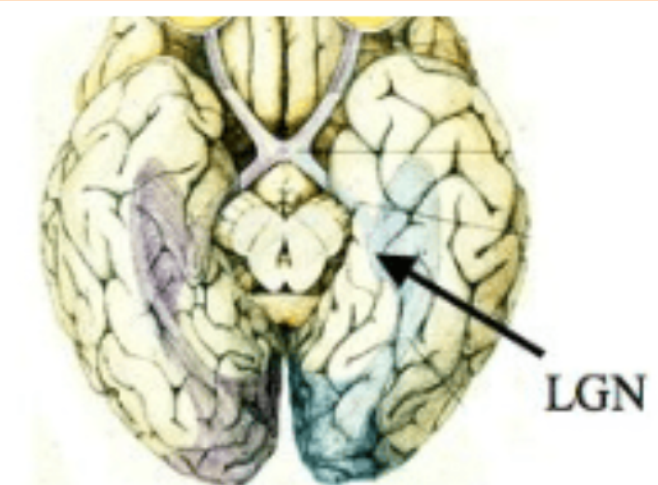
Macular Degeneration

A disease in which photoreceptors die in the macula. *A main cause of vision loss in adults over 55.*

Lateral Geniculate

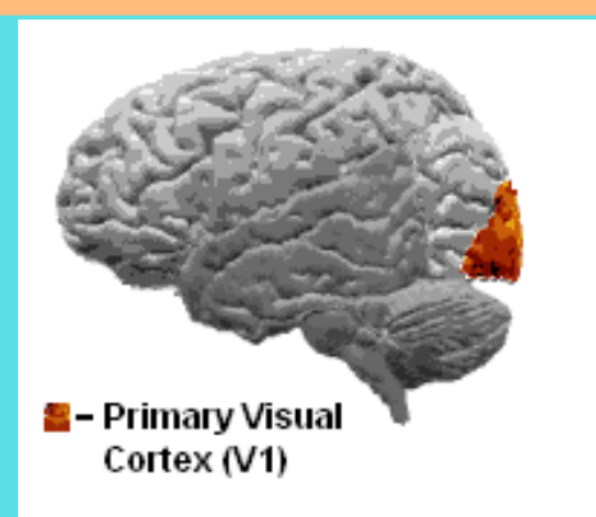
Nucleus

A part of the **thalamus** that visual data from the eyes travels through.



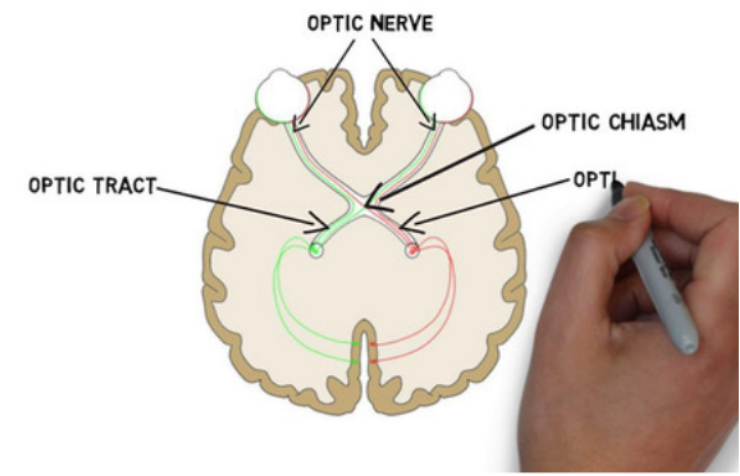
Primary Visual Cortex

A region located at the back of the brain in the **Occipital Lobe** that has a hierarchical structure that processes scenes and objects.



Optic Chiasm

The point at which data from both eyes crosses over



Dorsal Stream

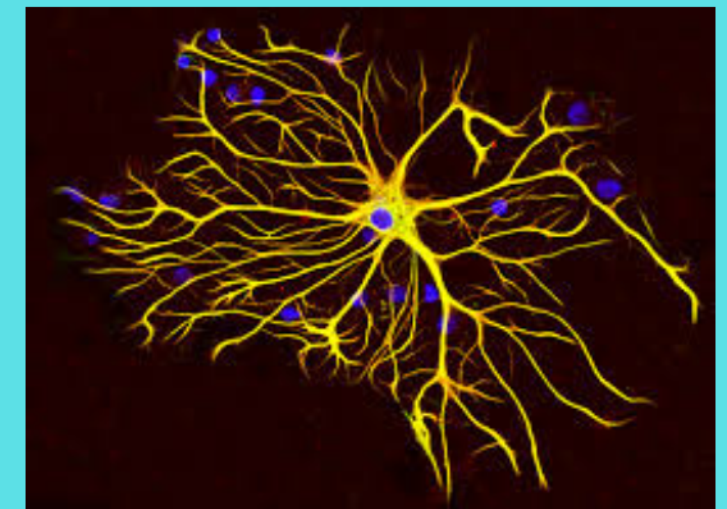
One of the visual system's processing paths to the **Parietal lobe** that computes visual motion and timing. This path grants the ability to ascertain spatial location of objects in the environment.

Ventral Stream

Another of the visual system's processing routes to the **Temporal Lobe** which utilizes memories to fuse color into images and also to overlap past memories.

Astrocyte

A star-shaped cell of the **myelin sheath**.



Binocular Vision

The sensation of having visual data obtained from two eyes which improves overall visual angles, volume, and peripheral vision.

Strabismus

Also known as cross-eyed. A defect in which one eye is favored often causing the other to go blind. The data from both eyes also cannot be crossed over at the **Optic Chiasm** resulting in impaired depth perception.

Opthamologist

Official name for a doctor specializing in the eyes.



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