

Photoreceptors

rods and cones respond to light turn light into electrical signals

Optic Nerve

carries neural impulses from the eye to the brain

Rods

specialized visual receptors that play a key role in night vision and peripheral vision

Cones

retinal cells that respond to higher levels of light and result in color perception

Bipolar Cells

second layer of neurons in the retina that transmit impulses from rods and cones to ganglion cells

Visual Cortex

the visual processing areas of cortex in the occipital and temporal lobes.

Tympanic Membrane

a structure that separates the outer ear from the middle ear and vibrates in response to sound waves

Cochlea

a coiled, bony, fluid-filled tube in the inner ear through which sound waves trigger nerve impulses

Basilar Membrane

a structure that runs the length of the cochlea in the inner ear and holds the auditory receptors, called hair cells

Auditory Nerve

the nerve that carries impulses from the inner ear to the brain, resulting in the perception of sound

Incus

a small anvil-shaped bone in the middle ear, transmitting vibrations between the malleus and stapes

Malleus

a small bone in the middle ear that transmits vibrations of the eardrum to the incus

Tympanic Cavity

air filled space in temporal bone

Stapes

stirrup; last of the three auditory ossicles of the middle ear

Hearing Loss

loss of hair cells, that can not be regenerated

Gustation

sense of taste

Olfaction

sense of smell

Taste Buds

sensory organs in the mouth that contain the receptors for taste

Cranial Nerves

12 pairs of nerves that carry messages to and from the brain

Gustatory Cortex

area of the brain that receives and interprets tastes from the tongue

Olfactory Bulb

the first brain structure to pick up smell information from the nose

Cilia

the hairlike projections on the outside of cells that move in a wavelike manner

Neurogenesis

the formation of new neurons

Somatosensory System

responds to touch input through receptors on the skin

Somatosensory Cortex

registers and processes body touch and movement sensations

Pain

an unpleasant sensory and emotional experience associated with actual or potential tissue damage

Nociceptors

sensory receptors that enable the perception of pain in response to potentially harmful stimuli

Allodynia

pain due to a stimulus that does not normally provoke pain

Diabetic Nephropathy

nerves on the hand and feet are damaged because of exposure to high blood sugar

Periaqueductal Gray Matter

the region of the midbrain surrounding the cerebral aqueduct