

BRAIN STRUCTURES, ETYMOLOGY and FUNCTIONS

STRUCTURE	ETYMOLOGY	FUNCTION
Prefrontal Cortex (or Frontal Lobe)	The outer shell before the forehead (Harper)	This is one of the four major areas of the cerebrum located in the upper brain. This area is associated with behavior, and it controls voluntary eye and muscle movement, verbal expression, problem solving, willpower, and planning. It is known to affect emotions, personality, intellect, morality, consciousness, abstract thought, attention span, memory, perseverance and impulse control.
Temporal Lobe	Time (Chudler) + hull, husk, pod-division of the brain (Harper)	This is one of the four major areas of the cerebrum located on the left and right sides of the cerebrum. This area is a memory processor for concepts such as music, fear, sense of identity, and it deals with hearing and smelling senses, receptive language, understanding speech, and emotional memory.
Occipital Lobe	Back of head (Chudler) + hull, husk, pod-division of the brain (Harper)	This is one of the four major areas of the upper brain located in rear of the cerebrum. This part of the brain processes (receives, interprets, and discriminates) visual input and affects reading.
Parietal Lobe	Wall (Chudler) + hull, husk, pod-division of the brain (Harper)	This is one of the four major areas of the cerebrum located at the top of the upper brain. This part of the brain affects tactile sensory information, proprioception (response to internal stimuli) and deals with reading, writing, language, calculation, and some visual functions.
Limbic Region	Border, hem, fringe (Chudler) or edge (Harper) + territory (Harper)	Group of connected structures in the midbrain area. This is the oldest part of the cortex, and it includes the temporal frontal, parietal lobe, and subcortical associations. This section of the brain is responsible for emotions, attitude, motivation, drive, social bonding, inspires sexual activity, and incorporates recent memory
Cerebellum	Little brain (Chudler)	This cauliflower-shaped structure is located below the occipital lobe and is next to the brain stem. This area regulates balance, equilibrium, posture, coordinates muscle movements, and identifies muscle overuse. It also affects cardiac, respiratory, and vasomotor centers. Damage to this area results in cerebral palsy. Malfunctions in this area lead to epilepsy and possibly paralysis if involved in severe trauma.
Amygdala	Almond (Chudler)	This almond shaped areas is located in the middle of the brain (one in each anterior temporal lobe) and is considered to be the critical processing area of the senses including emotional responses and memories such as fear. It also regulates the heartbeat, and it allows us to learn (cognition).
Hippocampus	Sea horse/sea monster (Chudler)	This crescent shaped structure is located deep in the temporal lobe in the central brain area. It deals with learning and memory formation. More importantly, it processes and stores new memories.

Thalamus	Inner chamber (Chudler)	The thalamus is located deep within the middle of the brain. It processes all senses except smell, and it regulates and maintains daily consciousness.
Hypothalamus	Under thalamus (inner chamber) (Chudler)	This area is located in the bottom center of the midbrain section. This area maintains homeostasis by controlling the pituitary gland and by regulating and influencing reflexes, blood pressure, thirst and appetite, hormone secretion, digestion, sexual responses, hormones, circulation, emotions, and sleep.
Corpus Callosum	Tough, hard body (Chudler)	This is a white-matter bundle of millions of nerve fibers (large collection of axons) located in the middle of the brain area which connects and communications with the left and right hemispheres of the brain.
Cortex	Bark, shell, outer layer (Chudler)	The cerebral cortex is the wrinkled, six layer deep outermost layer of the cerebrum, and it is packed with brain cells called neurons.
Pons	Bridge (Chudler)	A structure located near the top of the brain stem above the medulla that serves as a bridge between descending tracts from the midbrain to the lower centers and ascending tracts from the medulla and the spinal cord. It is a critical for sensory information and affects respiration, chewing, taste, arousal, wakefulness, and alertness.
Medulla Oblongata	rather long innermost marrow (Chudler)	This “life-sustaining control center” (wisc) is located in the brain stem. It channels information between the cerebral hemispheres and the spinal cord. It controls respirations, circulation, wakefulness, breathing, and heart rate. Additionally, it affects the ability to cough, gag, swallow, vomit, and digest.
Neuron	Nerve (Chudler)	Neurons are one of two types of brain cells that act as nerve cells and they receive stimulation from their branches known as dendrites. They communicate with other neurons through chemical and electrical transmissions.
Glial Cells	Glue (Chudler) + cellular tissue (Harper)	Glia cells are one of two types of brain cells that carry nutrients, speed repair, help myelinate axons, and possibly communicate with one another.
Axon	Axis, axle (Chudler)	Axons are long fibers that extend from the brain cells (neurons) which take away the information originally received from the dendrites and send the info other neurons in the form of electrical impulses.
Dendrite	Tree (Chudler)	Dendrites are numerous strandlike fibers, similar to spider webs, stemming from the cell body of neurons which serve as receptor (incoming information) sites for axons and create junctions at the synapse.
Synapse	Connection (Chudler)	The junction area containing a small gap of separating neurons where information from one neuron flows to another neuron.
Neurotransmitter	Nerve, tendon, sinew (Harper) apparatus for receiving signals (Harper)	Biochemical messengers in the brain that excite or inhibit their nearby neurons.

References

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