

Brain Regions Chart

Brain Region	Location	Function
Dura Mater	Part of the meninges forming the outermost layer surrounding the brain.	Encapsulates the brain and contains the CSF (Cerebrospinal fluid).
Cerebrum	Forebrain. Forms the bulk of the brain's mass.	Responsible for higher-level functions.
Cerebral Cortex	Thin layer of gray matter on the exterior of the cerebrum.	Contains 70% of the neural cell bodies. Cortex includes the contributions of the gray matter.
Frontal Lobe	Anterior brain. Includes the 2 hemispheres of the cerebrum.	Executive, planning, problem-solving, cognitive, social, etc. skills.
Parietal Lobe	Posterior to frontal lobe.	Understanding speech, using grammar and word organization.
Occipital Lobe	Posterior of cerebral hemisphere.	Handles visual images and visual recognition of objects and faces.
Temporal Lobe	Relative to frontal and parietal lobes.	Sensory interpretation. Memory of visual and auditory patterns.
Heschl's area	Deep, frontal lobe.	Main speech area.
Wernicke's area	posterior portion of the <u>superior temporal gyrus</u> in the dominant cerebral hemisphere (about 90% of people).	perception and language processing
Cerebellum	Posterior to midline.	Mainly white matter. Handles sensory information. Coordinates complex, skilled movements.
Spinal Cord	Relative to the brain stem and contains CNS axons/axons.	Connects the brain to the body.
Medulla Oblongata	Extends from brain stem down into the lowest segment of the spinal cord.	vital survival functions like breathing, temperature change in neural diameter, and respiratory functions.
Pons	Swollen bulge on anterior side of brain stem.	Several connections between the cerebellum and cerebrum.
Pituitary Gland	Attached to the base of the brain.	Regulates hormonal control.
Infundibulum	Located behind the optic chiasm.	Attachment point for the pituitary gland.
Hypothalamus	Located in Diencephalon.	Maintains the body's homeostasis. Regulates internal activities and is the primary link to the endocrine (hormonal) system.
Thalamus	Located in the midline within the diencephalon region.	Relay station for ascending sensory impulses incoming from the CNS.
Corpus Callosum	Relative to cerebral hemisphere.	Forms the neural connection between the right and left cerebral hemispheres.
Limbic System	Located within the diencephalon. Includes the thalamus, hypothalamus and basal nuclei.	Regulates emotional responses including sex drive, stress, aggression, anger, frustration.