

BRAIN ANATOMY

The First Step to Learning About the Brain

Cerebrum

The cerebrum is the part that controls higher order function. Compared to other animals, this part, as expected, is more greatly developed in humans because we are the smartest! It is interesting to see that the higher the parts are located, or the further from the brain stem, the more complex and uniquely suited the function is in relation to humans. Hence, the front of the brain where the frontal lobe is located is the most complex. This fabulous part of the human brain is further divided into 4 lobes: frontal, parietal, occipital, and temporal. The two hemispheres of the brain are connected by the corpus callosum.

Brainstem

The brainstem, analogous to a highway, connects and transports signals to and from the brain. It has efferent neurons that transmit signals from the brain to the organs in the body while afferent neurons transmit signals that convey sensations to the brain. In addition, the brainstem contains the pons and medulla oblongata, parts of the hindbrain, which regulate basic survival functions like breathing, sleep, and digestion. It also contains the midbrain, which is more complex, but not as much as the cerebrum.

Cerebellum

The cerebellum is a quintessential part of the brain that is very important for motor control. Although this part of the brain is not considered to be a part of the cerebrum, it works very closely with areas like the thalamus and motor cortex within the cerebrum in order to help relay information, coordinate it, correct errors, and regulate motion.



SPECIFIC FUNCTIONS

The Brain has to Work Together to Fulfill Tasks

Frontal Lobe

This is the most complex part of the brain. This part allows for critical thinking, motor processing, planning, long term memory storage, speaking abilities, and much more. In essence, this part helps us surpass other species as the most intelligent species

Parietal Lobe

This center for navigation and sensation allows us to feel, taste, and even smell. In fact, it helps us process and understand all of our sensations. In addition, it helps us process language. Damage to this part can cause dyslexia.

Occipital Lobe

Despite being at the back of the brain, the furthest from the eyes, the occipital lobe is the vision center that helps processes what we see. The signal passes the optic chiasm in the temporal lobe to get here.

Cerebellum

The cerebellum helps control fine motor skills. For example, this part helps you balance your body when walking. It corrects all processing errors related to motion in order to let you stand, walk, and even speak.

Brainstem

The brain stem contains the hindbrain and midbrain. In addition to controlling basic functions, this part transmits and receives electrical signals, connecting the brain to the rest of the body.

Temporal Lobe

This part closest to the ears helps process auditory information, which is what you hear. Behind this lobe is the basal ganglia, thalamus, hypothalamus, and a bunch of other parts serving a multitude of roles, including memory and processing emotion.