

Human Brain

The human brain is not only one of the most important organs in the human body; it is also the most complex.

The cerebral cortex is the part of the brain that functions to make human beings unique. Distinctly human traits including higher thought, language, and human consciousness as well as the ability to think, reason and imagine all originate in the cerebral cortex.

The cerebral cortex is what we see when we look at the brain. It is the outermost portion that can be divided into the four lobes of the brain. Each bump on the surface of the brain is known as a gyrus, while each groove is known as a sulcus.

The Four Lobes

The cerebral cortex can be divided into four sections, which are known as lobes. The frontal lobe, parietal lobe, occipital lobe, and temporal lobe have been associated with different functions ranging from reasoning to auditory perception.

- The frontal lobe is located at the front of the brain and is associated with reasoning, motor skills, higher level cognition, and expressive language. At the back of the frontal lobe, near the central sulcus, lies the motor cortex. This area of the brain receives information from various lobes of the brain and utilizes this information to carry out body movements. Damage to the frontal lobe can lead to changes in sexual habits, socialization, and attention as well as increased risk-taking.
- The parietal lobe is located in the middle section of the brain and is associated with processing tactile sensory information such as pressure, touch, and pain. A portion of the brain known as the somatosensory cortex is located in this lobe and is essential to the processing of the body's senses.
- The temporal lobe is located on the bottom section of the brain. This lobe is also the location of the primary auditory cortex, which is important for interpreting sounds and the language we hear. The hippocampus is also located in the temporal lobe, which is why this portion of the brain is also heavily associated with the formation of memories. Damage to the temporal lobe can lead to problems with memory, speech perception, and language skills.
- The occipital lobe is located at the back portion of the brain and is associated with interpreting visual stimuli and information. The primary visual cortex, which receives and interprets information from the retinas of the eyes, is located in the occipital lobe. Damage to this lobe can cause visual problems such as difficulty recognizing objects, an inability to identify colors, and trouble recognizing words.