

THE BRAIN

Let's get a quick overview of the brain. Again, we are not professionals, just sharing what we have learned. We have found that understanding a little bit about how the brain functions has helped us understand how to help our loved one and how to overcome many obstacles.

The brain, sometimes called the "Master Organ", connects to the spine and is part of the central nervous system (CNS). Various parts of the brain are thought to be responsible for personality, physical abilities, breathing, and critical processes of the body. Think of the brain as the body's command center. ⁱ

Traumatic brain injury can be caused by a serious jolt to the brain or a stroke. In some cases, it can cause brain death. This is when a person cannot regain consciousness.

Anatomy of the brainⁱⁱ:

- CEREBRUM - Includes the cerebral cortex. Responsible for controlling movement, thinking, emotion, problem solving, and learning.

- CEREBRAL CORTEX - Has 4 lobes:
 - **FRONTAL LOBE:** Language, motor function, memory, personality, and other cognitive functions.
 - **TEMPORAL LOBE:** (Wernicke area) Understanding language, memories, emotions, hearing and visual perception.
 - **PARIETAL LOBE:** Processes what is seen and heard. Interprets sensory information.
 - **OCCIPITAL LOBE:** Interprets visual information and contains the visual cortex.

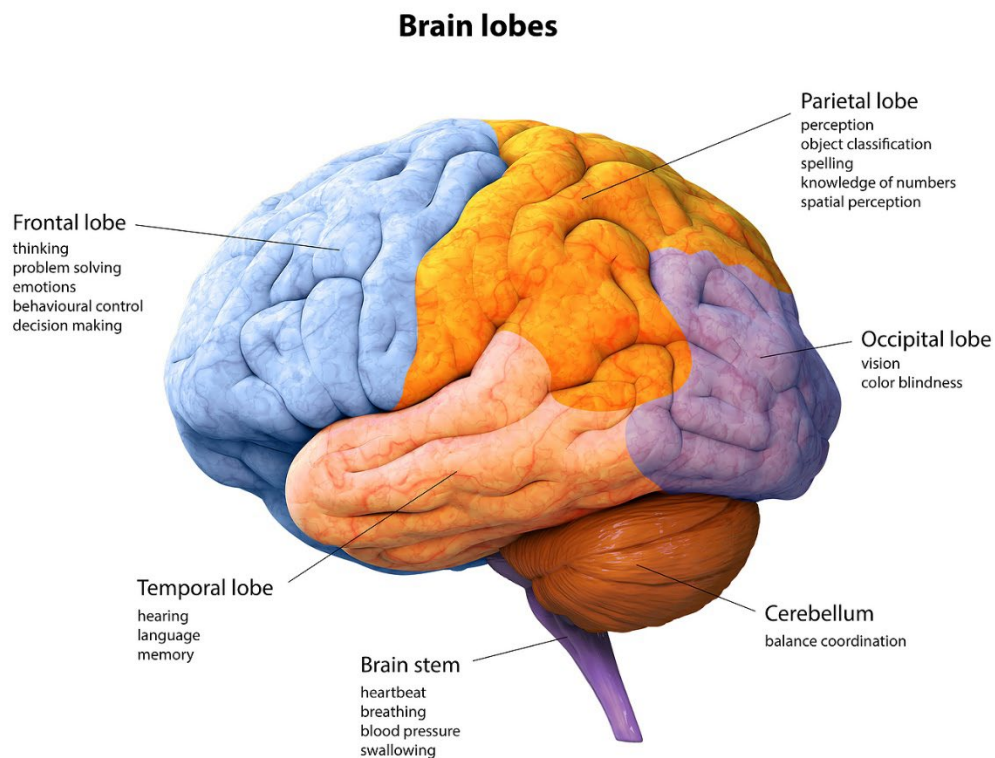
- CEREBELLUM - Called "Little Brain". Regulates balance, learned movements (walking, fastening buttons, etc.) The cerebellum is highly affected by alcohol or drug use.

BRAINSTEM

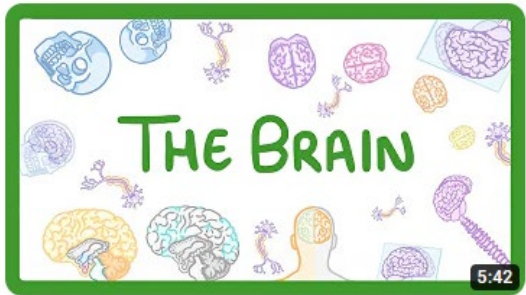
- Has 3 parts:

- **MIDBRAIN:** Coordinates hearing and movement. Formulates response to environmental change (hot/cold) and potential threats (being attacked/stalked).
- **PONS:** Enables bodily functions (tears, blinking, focusing, facial expressions ...)
- **MEDULLA:** Regulates biological functions essential for survival. (Heart rhythm, blood flow, breathing.) Detects changes in blood oxygen and carbon dioxide levels and causes reflexes like vomiting, swallowing, can coughing.

FOR A VERY GOOD VIEW OF THE BRAIN THAT ALLOWS TO SEE IT IN LAYERS, GO HERE: <https://www.medicalnewstoday.com/articles/brain#anatomy>



You can also watch this short video about the brain on You Tube:



GCSE Biology - The Brain #30

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This video covers: - What the brain is and what it does - The different parts of the brain - How we study the brain - Why treating the ...

<https://www.youtube.com/watch?v=jvIr7bOroYI>^{iv}

Now that you know a little bit about the brain, you can see why TBI can affect many different areas of the body depending on which part(s) of the brain were damaged.

ⁱ Lauren Martin. 2023. "What to know about the brain". Medical News Today. Retrieved September 12, 2023.
<https://www.medicalnewstoday.com/articles/brain>

ⁱⁱ Lauren Martin. . "What to know about the brain". Medical News Today. Retrieved September 12, 2023.
<https://www.medicalnewstoday.com/articles/brain>

ⁱⁱⁱ Moomoo Math Blog. 2017. "Brain Facts". Moomoo Math Blog. Retrieved September 12, 2023.
<http://www.moomoomathblog.com/2017/12/25-facts-about-lobes-of-brain.html>

^{iv} Cognito. 2020. "GCSE Biology – The Brain #30". YouTube. Retrieved September 12, 2023.
<https://www.youtube.com/watch?v=jvIr7bOroYI>