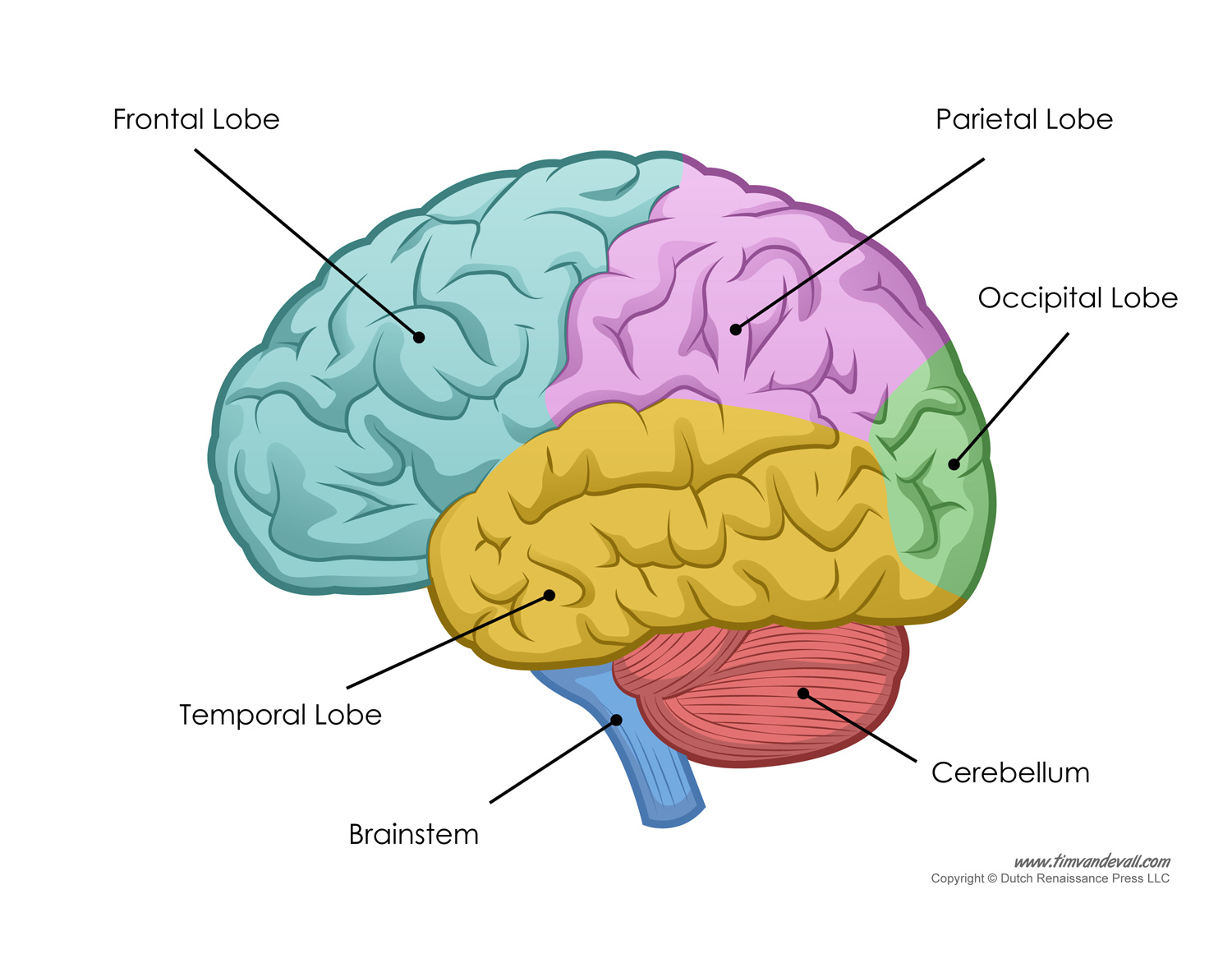
Core Competency Theme 3: Neurological Assessment and Effects of Stroke



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|  | Brief description | Functions | Potential symptoms |
| A  Frontal  Lobe | Located at the front of the brain, the frontal lobe receives information from various lobes of the brain and utilizes this information to carry out body movements. In each hemisphere, the frontal lobe is responsible for movement (motor functions), decision making and executive control (selection and co-ordination of goal-directed behaviors). | The left frontal lobe controls ability for language, rational and logical thinking, science and math and ability to solve problems. The right frontal lobe controls creativity, imagination, intuition, curiosity, musical and artistic ability. | * Weakness or hemiparesis * Apraxia of gait * Urinary incontinence * Aphasia * Cognitive deficit * Behavioural and personality changes |
| B  Parietal  Lobe | Located behind the frontal lobe and above the temporal lobe, the parietal lobe is divided into two hemispheres. They are known as the left and right hemispheres.  The parietal lobe is known to interpret sensory information, such as letting you know the location of parts of your body and aiding in physical navigation. | The left hemisphere is heavily involved in the processing of language and mathematics, while the right hemisphere has been shown to work with image detection and spatial understanding, such as the ability to read and interpret a map | * Sensation changes * Perceptual changes * Wernicke’s Aphasia * Visual loss |
| C  Occipital Lobe | An occipital stroke causes visual symptoms which can range from visual hallucinations to complete blindness. These symptoms depend on where in the occipital lobe the stroke occurred. | The occipital lobe is divided into several functional visual areas. Each visual area contains a full map of the visual world. | * [Homonymous hemianopia](https://www.verywell.com/loss-of-peripheral-vision-3146459) * [Visual Illusions](https://www.verywell.com/what-is-a-visual-illusion-3146438) * Visual [Hallucinations](http://stroke.about.com/od/glossary/g/Hallucination.htm) * Visual [Agnosias](http://stroke.about.com/od/glossary/g/Agnosia.htm) |
| D  Temporal Lobe | The temporal lobe is divided into two hemispheres.; it is involved in processing sensory input into derived meanings for the appropriate retention of visual memories, language comprehension, and emotion association  The left side of the temporal lobe deals with language and verbal memory. The right side of this lobe includes the ability to process non-verbal sounds and non-verbal memory. | The Temporal Lobe mainly revolves around hearing and selective listening. It receives sensory information such as sounds and speech from the ears. It is also key to being able to comprehend, or understand meaningful speech. | * Word finding difficulties * Auditory agnosia * Memory, emotional, behavioural changes * Vertigo * Seizures |
| E  Cerebellum | The cerebellum is located in the lower part of the brain, towards the back. It plays a role in body movement, eye movement, and balance. | The cerebellum receives information from the sensory systems, the spinal cord, and other parts of the brain and then regulates motor movements. | * Movement and sensation - ataxia * Balance * Speech and Swallowing * Vision – nystagmus |
| F  Brainstem | The brain stem controls the flow of messages between the brain and the rest of the body, and it also controls basic body functions such as breathing, swallowing, heart rate, blood pressure, consciousness, and whether one is awake or sleepy.   |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | |  | The brain stem has 3 areas   |  |  | | --- | --- | |  | * Midbrain | |  | * Pons | |  | * Medulla Oblongata | | | The brainstem is the region of the brain that physically and functionally connects high level brain activity with the rest of the body. It controls the most basic functions necessary for the survival, breathing, heartbeat, blood pressure; digestion and swallowing are centred here. The ability to coordinate movement, withdraw from pain, and react to danger is controlled here. | * Weakness * Sensory deficits * Dizziness * Double vision * Uneven pupils * Dysphagia * Tongue deviation * Locked in Syndrome |