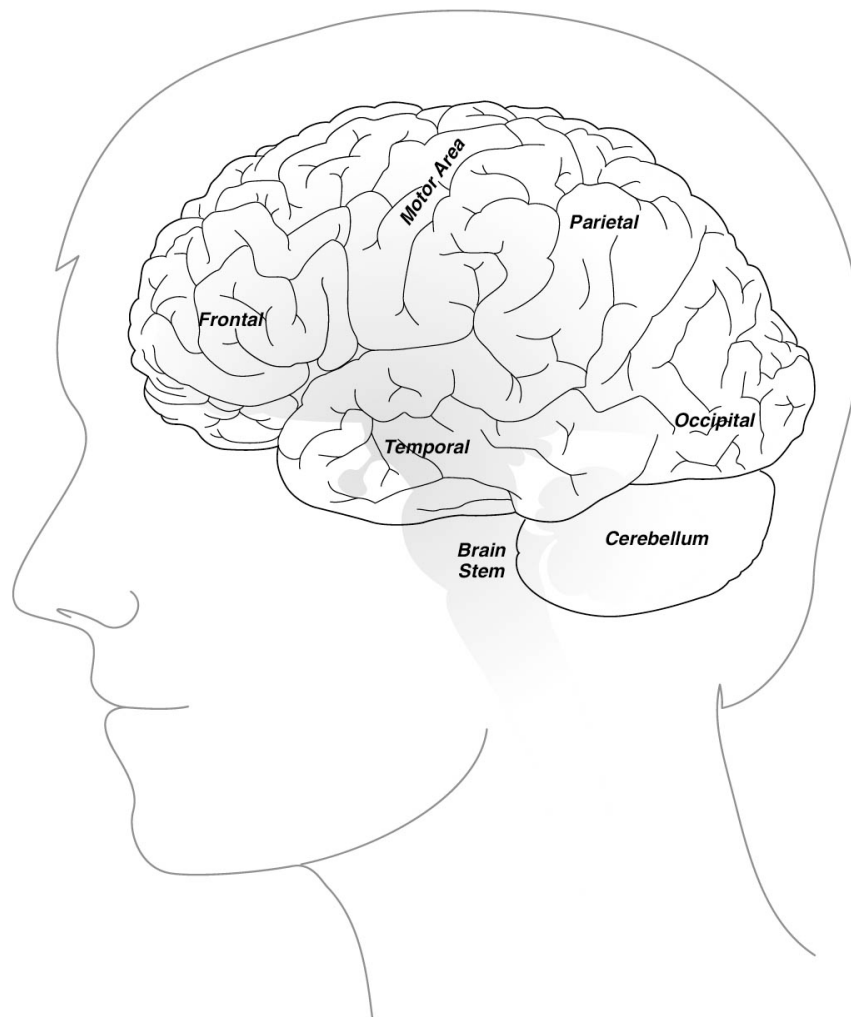


Brain Lobes and Effects of Stroke

The location and size of your stroke injury will determine what functions will be lost or changed. The brain can be divided into 3 main areas: the cerebrum, cerebellum and brain stem. Each area in the brain controls different functions or skills.



Right-Brain Stroke → Affects the Left Side of the Body

The right half (hemisphere) of the brain controls the movement of the left side of the body. A person with a right brain stroke may be weak or not able to move the left side of the body. Other effects from the stroke may include:

- Trouble knowing how far or near an object is to the body.
- Neglect of left side of the body, or not able to see things to the left of the body.
- Poor decision making, lack of insight into the changes in ability since the stroke, leading to safety concerns.
- Impulsiveness.
- Short attention span and slowed learning of new things.
- Facial weakness, slurred speech, or problems swallowing.

Left-Brain Stroke → Affects the Right Side of the Body

The left half (hemisphere) of the brain controls the right side of the body. A person with a left-brain stroke may be weak or not able to move the right side of the body.

Other effects from the stroke may include:

- Trouble speaking or understanding words said or written (aphasia see HFFY #6678).
- Slow, careful movements.
- Not able to see things on the right side of the body.
- Facial weakness, unclear speech, or problems with swallowing.

Cerebrum

The cerebrum is divided into the left and right hemispheres. It is made up of four lobes: frontal, parietal, temporal, and occipital. Each area is responsible for different functions and abilities.

- **Frontal Lobe**
 - Movement
 - Reasoning and judgement
 - Personality
- **Parietal Lobe**
 - Sensation
 - Spatial awareness
- **Temporal Lobe**
 - Hearing
 - Language
 - Memory
- **Occipital Lobe**
 - Vision

Cerebellar Stroke

The **cerebellum** controls balance, coordination and fine motor movements.

Effects of stroke may include:

- Dizziness
- Balance problems or unsteady walking
- Clumsiness or jerky movements in an arm or leg
- Slurred speech
- Nausea
- Vomiting
- Rapid movement of the eyes (nystagmus)

Brain Stem Stroke (Midbrain, Pons, Medulla)

The brain stem is the area of the brain that controls our heart rate, breathing, and blood pressure. The brain stem also helps control eye movement, hearing, speech, and swallowing. Effects of a stroke might include

- Double or blurred vision
- Dizziness
- Swallowing problems
- Slurred speech
- Trouble breathing
- Weakness or paralysis of arms and legs
- Decreased levels of alertness

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person's health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 8/2019 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing HF#5593