

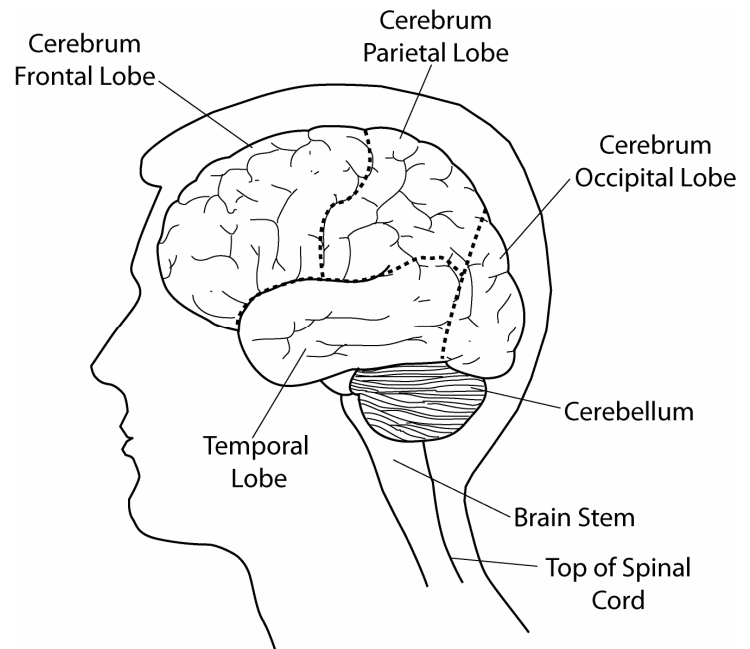
Basal Ganglia Stroke

Arteries carry blood that contains oxygen to the brain. The flow of blood through the arteries can stop if they are blocked or bleed. This is called a stroke. It is also known as a cerebrovascular accident or CVA. This handout looks at what occurs when a stroke happens to the basal ganglia.

The basal ganglia are “messengers” in the middle of the brain. They sort out information for the spinal cord and cerebellum. Many arteries work with the basal ganglia. This means the basal ganglia can be injured in many places with a stroke. It can affect:

- Body movement
- Body sensation
- Vision
- Judgment
- Motivation
- Personality
- Speech

The effects of stroke will depend on damage to the basal ganglia. Bleeding in the arteries will put pressure on the rest of the brain. This can damage areas outside of the basal ganglia.



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Changes in body movement

There may be a range of changes in body movement depending on the damage to the basal ganglia. The patient may have:

- Loss of movement, such as stiff, rigid or weak muscles
- Tremors or body shakes
- Left-side neglect which occurs when the stroke affects the right side of the brain. The patient may have problems moving the eyes or the head to the left. The patient may only eat food on the right side of the plate. He or she may ignore anything on the left side, including someone standing or speaking.
- Changes in the ability to swallow if the muscles of the mouth, tongue, and throat are affected. Food may be held on one side of the mouth. This is called pocketing.
- Changes in facial muscles, such as smiling when talking

When the body is unable to coordinate how the muscles move together, this is called as ataxia (a-tax-ee-a).

- ▶ For example, you may fall because you are not able to put your foot where you want to walk.

Ataxia can affect arms, legs and chest muscles. It can lead to uncontrolled body shakes called tremors. Tremors often occur when the body starts or stops. Preventing falls or other accidents are safety concerns.

Changes in body sensation

After a stroke, it can be hard for the patient to feel touch or know where he or she is being touched. These changes may occur in the face on the same side of the stroke and in the body on the opposite side.

- ▶ For example, something touching your foot may feel like someone touching your leg.

The patient may not feel pain and temperature in that area. The patient may find it hard to know where the body is and how it is moving.

Changes in eye movement

The stroke may change how the eyes move. The patient may have trouble looking up or one eye may look to the side. The muscles that control the size of the eye's pupil stop working. One pupil may be larger or smaller than the other. The patient may also be missing parts of his or her visual field.

Changes in judgment

Changes in judgment are common. The patient may be confused and have a hard time knowing what is going on around him or her. The patient can feel frustrated or nervous.

Changes in motivation

The patient may become unmotivated and lack interest in activities.

Changes in personality

The stroke may affect personality. Sometimes, the patient will have a strong emotional response to things that didn't affect him or her before. The patient may laugh or cry at times when it doesn't make sense. Sometimes, the patient may have problems with depression after a stroke.

Changes in speech

Problems with speech and understanding language called aphasia are common with this type of stroke.

- **Non-fluent aphasia** – The patient will have trouble speaking words out loud. His or her sentences are short and missing words. Instead of saying, “I want to take the dog for a walk,” the patient would say, “dog walk.” The patient's speaking is slow and difficult.

- **Fluent aphasia** – The patient speaks in full sentences but will say the wrong words or made up words. Instead of saying, “I want to take the dog for a walk,” the patient would say, “I used to take the cars for a salk.”
- **Global aphasia** – The patient has problems with speaking and understanding what is said to him or her.

✦ **Talk to your doctor or others on your health care team if you have questions. You may request more written information from the Library for Health Information at (614) 293-3707 or email: health-info@osu.edu.**