

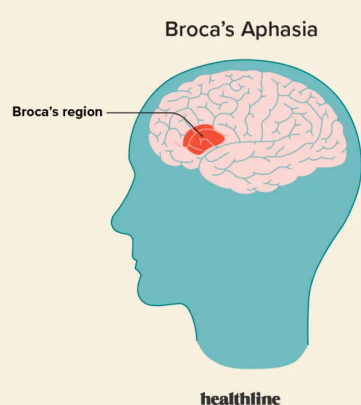
Broca & Wernicke's Aphasia

Aphasia is a disorder that affects part of the brain responsible for language, causing a person to have issues speaking or understanding language. The type of aphasia a person has is determined by the location of damage in the brain.



Broca's Aphasia ("non-fluent aphasia")

Broca's aphasia is a result of damage to Broca's area. It is named after the French physician who discovered how a part of the frontal lobe of the brain controls the muscles used to speak.



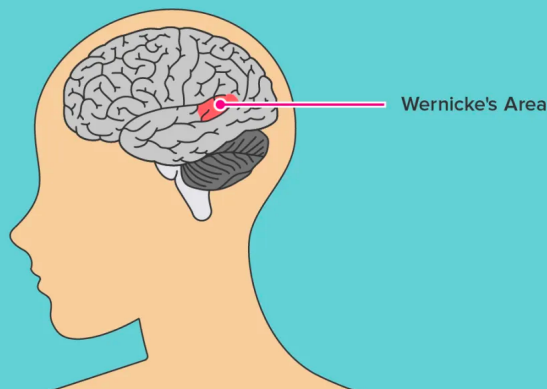
This type of aphasia does not affect people's ability to understand what others are saying. They know what they want to say, however, they have trouble forming words. People with Broca's aphasia usually take great effort in speaking short phrases and may repeat words over and over. In severe cases, they are unable to make any sound at all or only a single one at a time. Broca's aphasia also affects repetition, where it causes a person to struggle to repeat back words you say to them.



Wernicke's Aphasia ("fluent aphasia")

Individuals with Wernicke's aphasia usually have damage to Wernicke's area, a part of the temporal lobe of the brain named after a German neurologist who discovered how it processes people's understanding of speech and selects the right words used to speak.

Wernicke's aphasia results in people having problems with understanding what others are saying. While very simple sentences may be understood, very complex ones are harder to process. People with this type of aphasia are still able to physically speak without trouble, however, it comes out as confusing. They are unaware that what they say doesn't make sense, and they may use words that don't exist or are out-of-context. In addition a person might have trouble repeating back words or phrases you say to them.



Causes

Aphasia can be caused by any condition that results in damage to the language areas of the brain or problems affecting the brain's functions. Possible causes include:

- Stroke
- Concussion or head injury
- Brain tumor, including cancer
- Brain infection
- Alzheimer's disease
- Epilepsy or seizures
- Inflammation



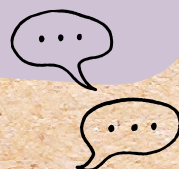
Diagnosis

- Physical exam and questioning about medical history
- Diagnostic imaging and testing to locate the precise location of brain injury
- Cognitive and memory exams
- Nerve function tests
- Testing the patient's ability to understand and produce speech
- If aphasia is suspected, the patient's communication abilities will be thoroughly examined by a speech-language pathologist



Treatment

- Treating the condition that caused the aphasia. For example, a stroke may be treated by restoring blood flow to the part of the brain that is affected.
- Temporary causes such as a concussion, infection, or migraine, usually result in aphasia being temporary as well. It will often improve as the brain heals.
- Speech therapy can help a person with permanent or long-term brain damage.



References

- <https://www.nidcd.nih.gov/health/aphasia#:~:text=People%20with%20Wernicke's%20aphasia%20are,frontal%20lobe%20of%20the%20brain.>
- <https://my.clevelandclinic.org/health/diseases/5502-aphasia>
- <https://www.ninds.nih.gov/health-information/disorders/aphasia#:~:text=What%20is%20aphasia%3F,location%20of%20brain%20tissue%20involved.>