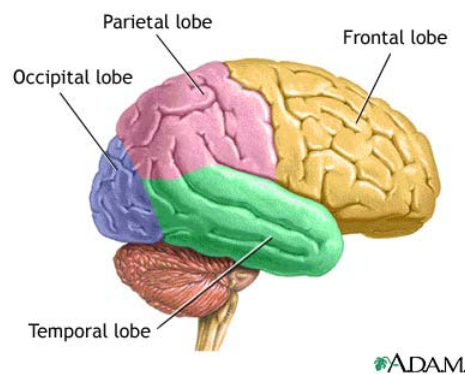


# Brain Injury

## What causes a brain injury?

A brain injury can be caused by head trauma, stroke, brain tumor, encephalitis, meningitis, anoxia, aneurysm, or degenerative neurological diseases. A brain injury causes neurological (nerves or nervous system) damage and interferes with normal brain function. A person with a brain injury may have difficulty with physical movement such as walking, visual perception, psychological function, communication, cognition (thinking), or swallowing. The severity of these problems depends on the location and extent of the injury to the brain.



## How does a speech-language pathologist treat patients with brain injury?

Speech-language pathologists address the communication, cognitive and oral-motor, feeding, and swallowing deficits associated with a brain injury.

- Communication deficits may include:
  - motor speech
  - verbal expression
  - auditory comprehension
  - reading comprehension
  - written expression
- Cognitive deficits may include:
  - memory
  - attention
  - problem solving
  - executive functioning
  - processing speed

- Oral-Motor, feeding and swallowing deficits may include:
  - oral preparation of food (chewing)
  - airway protection during swallowing

The goal of therapy is to help the child to regain as much function as possible. This is done by working on the underlying skills affected by the brain injury and identifying environmental modifications to increase the child's independence. As part of the therapy, the family and child are trained to use compensatory strategies for long-term deficits. Family involvement is very important as part of the therapy process.

### **Why Cincinnati Children's Hospital Medical Center?**

Cincinnati Children's Hospital Medical Center has two programs dedicated to the treatment of pediatric brain injury:

- The Cincinnati Children's [Inpatient Rehabilitation Program](#) and
- The Cincinnati Children's Outpatient Neurorehabilitation Team ([ONRT](#)).

Both programs offer a comprehensive, interdisciplinary approach to rehabilitation therapy. The speech-language pathologists who provide services within these two programs have undergone extensive training in the field of pediatric brain injury and most are recognized by the Brain Injury Association of America as Certified Brain Injury Specialists.

### **Websites on brain injury:**

- Brain Injury Association of America: <http://www.biausa.org>.
- National Institute of Neurological Disorders and Stroke: <http://www.ninds.nih.gov/disorder/tbi/tbi.htm>
- Brain Injury Resource Center: <http://www.headinjury.com/>

For more information, please contact the Division of Speech Pathology at (513) 636-4341 or visit our website at [www.cincinnatichildrens.org/speech](http://www.cincinnatichildrens.org/speech).