

## *Traumatic Brain Injury*

### *Oregon State Definition:*

Traumatic Brain Injury, or TBI, means **acquired injury to the brain** caused by an external physical force **resulting in total or partial functional disability or psychosocial impairment, or both, that adversely affects a child's educational performance.**

The term includes open or closed head injuries resulting in *impairments in one or more areas, including cognition; language; memory; attention; reasoning; abstract thinking; judgment; problem-solving; sensory, perceptual, and motor abilities; psychosocial behavior; physical functions; information processing; and speech.*



Students with brain injuries that are congenital or degenerative, or brain injuries induced by birth trauma, are not eligible under the category of traumatic brain injury but may be eligible under a different category under this rule. (OAR 581-015-2175)

## *Minimum criteria for eligibility:*

The person has an ***acquired injury to the brain*** caused by an external physical force;

The person's ***condition is permanent or expected to last for more than 60 calendar days;***

The child's injury results in an impairment of one or more of the following areas:

- Communication
- Behavior
- Cognition
- Memory
- Attention
- Abstract thinking
- Judgment
- Problem-solving
- Reasoning and/or information processing
- Sensory, perceptual, motor and/or physical abilities

To be **eligible for special education services** as a child with a traumatic brain injury, the eligibility team must also determine that:

- (a) The child's disability has an **adverse impact on the child's educational performance;** and
- (b) The child **needs special education services as a result of the disability.**

# *Traumatic Brain Injury Eligibility Criteria: Evaluations*

**Medical or health assessment** statement indicating that an event may have resulted in a traumatic brain injury;

A comprehensive **psychological assessment** using a battery of instruments intended to identify deficits associated with a traumatic brain injury -- administered by a licensed school psychologist, a psychologist licensed by a State Board of Psychological Examiners, or other individuals who have the training and experience to administer and interpret the tests within the battery;

**Other assessments** including, but not limited to, **motor assessments** if the child exhibits motor impairments; **communication assessments** if the child exhibits communication disorders; and **psychosocial assessments** if the child exhibits changed behavior. These assessments must be completed by educators knowledgeable in the specific area being assessed;

**Other information** relating to the child's suspected disability, including **pre-injury performance** and a **current measure of adaptive ability**;

An **observation** in the classroom and in at least one other setting;

*Any additional assessments necessary to determine the impact of the suspected disability:*

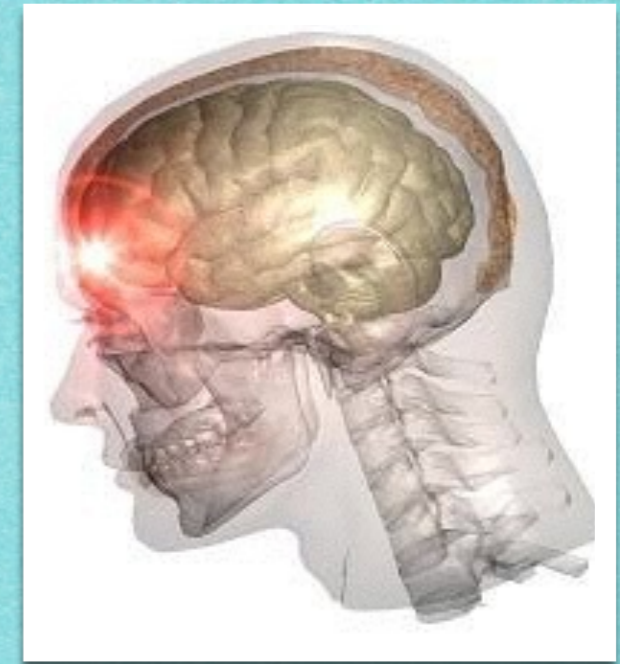
- (i) On the child's educational performance for a school-age child; or
- (ii) On the child's developmental progress for a preschool child; and

*Any additional evaluations or assessments necessary to identify the child's educational needs.*

## *Tests to Evaluate TBI*

*Individuals with traumatic brain injury require frequent assessments and diagnostic tests. These may include:*

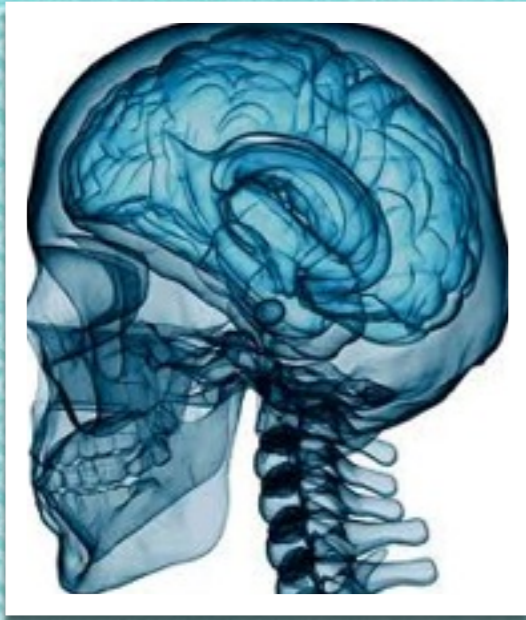
- **Neurological Exam:** A series of questions and simple commands to see if the person with a brain injury can open their eyes, move, speak and understand what is going on around them. For example: What is your name? Where are you? What day is it? Wiggle your toes. Hold up two fingers. A standard way to describe responses may be used. Most hospitals use the Glasgow Coma Scale or Rancho Levels of Cognitive Functioning.
- **X-ray:** A picture that looks at bones to see if they are broken (fractured).
- **CT Scan (CAT Scan):** An X-ray that takes pictures of the brain or other parts of the body. The scan is painless but the individual must lie very still. The test takes 15 to 30 minutes to complete.
- **MRI (Magnetic Resonance Imaging) Scan:** A large magnet and radio waves are used, instead of X-rays, to take pictures of the body's tissues. It is painless but noisy. The machine is shaped like a long tube. The individual must lie still on a flat table in the middle of the machine. The test takes about 60 minutes to complete.
- **Angiogram:** A test to look at the blood vessels in the brain. Using a catheter, or small flexible tube, dye is put into an artery (usually in the groin) that supplies blood to the brain. This test can tell if the blood vessels have been damaged or are spasming. The test takes one to three hours.
- **ICP Monitor:** A small tube placed into or just on top of the brain through a small hole in the skull. This will measure the pressure inside the brain (intracranial pressure).
- **EEG (Electroencephalograph):** A test to measure electrical activity in the brain. Special patches called electrodes are applied to the head to measure the activity. The test is painless and can be done at the bedside or in the EEG department.
- **Neuropsychological battery:** Neuropsychologists test thinking, memory, judgment, emotions, behavior and personality. This information can be used to help guide treatment. It will also help determine the amount of supervision that patients need when they leave the hospital.



(Resource: Washington State Traumatic Brain Injury Council.)



## *TBI Facts and Statistics*



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Each year, an estimated **1.7 million** people sustain a TBI.

Of them:

- 52, 000 die
- 275, 000 are hospitalized

- 1.365 million, nearly 80%, are treated and released from the emergency department.

Interview with Marcia Mongrain,  
Educational Specialist at Cowlitz County  
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"Like all disabilities, no two people are the same. One person I knew of with TBI developed a quick temper and became frustrated easily, something he never had or did before his brain injury."



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# *References and Resources*

Brain Injury Alliance of Oregon.  
<http://www.biaoregon.org>.

Excellent TBI resources  
[brainline.org](http://brainline.org)

Center for Disease Control & Prevention.  
<http://www.cdc.gov/TraumaticBrainInjury/index.html>.

Center on Brain Injury Research & Training.  
<http://www.cbirt.org/tbi-education>.

Columbia Regional Program: TBI.  
<http://www.crporegon.org/services/tbi>.

Oregon Department of Education.  
<http://www.ode.state.or.us/search/page/?id=1376>.

Washington State Traumatic Brain Injury Council.  
<http://www.tbiwashington.org>.

Eligibility Page:  
[www.ode.state.or.us/pubs/forms/schoolage/51480-P.pdf](http://www.ode.state.or.us/pubs/forms/schoolage/51480-P.pdf)