Determining Special Education Eligibility - Traumatic Brain Injury

Department of Education, Office of Special Education

Introduction

These eligibility guidelines were written to provide parents, teachers, special education personnel, administrators, and other professionals with information on the identification and determination of eligibility for special education services for children with traumatic brain injury.

This category of children has been defined by both federal and state regulations. A three-part eligibility requirement for a child to be identified as a child with a traumatic brain injury is as follows:

- Meet eligibility criteria (92 NAC 51.006);
- Documentation of adverse effect on educational performance;
- Determination that a need for special education is evident.

State Definition

Traumatic Brain Injury- To qualify for special education services in the category of traumatic brain injury, the child must have: an 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, or in the case of a child below age five, a child's developmental performance.

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

The category does not include brain injuries that are congenital or degenerative, or brain injuries induced by birth trauma.

Section 1: MULTIDISCIPLINARY EVALUATION (MDT) CONSIDERATIONS

The Multidisciplinary Team (MDT) should include at least:

- The child's parent(s);
- For a school age child, the child's regular teacher(s) or a regular classroom teacher qualified to teach a child of that age;
    - For a child below age five, a teacher qualified to teach a child below age five;
- A school psychologist or licensed psychologist;
- A special education teacher or appropriate related services provider; and
- A school district administrator or a designated representative

Section 2: GUIDELINES

In order for a child to be identified as having a traumatic brain injury, the evaluation should include the analysis and documentation of:

- A description of an event that has resulted in an acquired insult to the brain (generally provided by medical personnel or other specialist with knowledge of traumatic brain injury);

- Evidence of impaired functioning in one or more of the following areas that has been determined to produce an adverse effect on the child's educational or developmental performance:
    - Cognition (should include, but not be limited to attention, memory/ learning, organization, problem solving, abstract reasoning, communication, judgment, visual perception, and auditory perception);
    - Sensory functioning;
    - Motor functioning (should include, but not be limited to motor sequencing, planning, and execution);
    - Behavior (should include, but not be limited to agitation, irritability, aggression, apathy, lack of insight, impulsivity, poor emotional control, disinhibition, secondary depression and withdrawal, and difficulties with social relationships)

- The severity of the impaired functions, which may vary across situations, activities and time. Where appropriate, the team must consider and document these variations.

Children with a traumatic brain injury represent a heterogeneous group. A physician's report alone is not sufficient to verify a child with traumatic injury. There must be documented evidence that there is an adverse effect in the educational performance/ development for a child to be identified with traumatic brain injury.

Educational evaluation and assessment include a combination of, but are not limited to:

- Medical assessments
- History of developmental milestones
- Speech/language assessments
- Personality assessments
- Parent interviews/rating scales
- Individual achievement testing
- Classroom assessment data

- Norm-referenced testing data
- Criterion-referenced assessments
- District-wide assessments
- Curriculum-based assessments
- Observation and analysis of behavior
- Teacher anecdotal records
- Analysis of pre-injury academic performance and social/emotional performance

SECTION 3: PROCEDURES TO DETERMINE ADVERSE EFFECT DEVELOPMENT/EDUCATIONAL PERFORMANCE

FACTORS TO CONSIDER

Many factors must be considered in determining if a traumatic brain injury is causing, or can be expected to produce significant delays in the child's development or educational performance. The factors include, but are not limited to:

- Type (open head injury, closed head injury), degree and severity of the brain injury
- Cause of the traumatic brain injury
- Nature/status of the traumatic brain injury
- Age of the traumatic brain injury occurrence
- Medical history, including medications
- Current age
- History of interventions and response
- Current educational placement
- Current levels of performance (language, communication, academic, social-emotional)
- Vocational/Postsecondary transition needs

Examination of each of these factors may lead to additional factors to consider. Psychologists, speech-language pathologists, and teachers are the primary professionals who can determine how these factors adversely impact the child's educational performance. Parents, medical professionals, school nurses, teachers, and the child him/herself can also provide information important in determining the impact of the traumatic brain injury.

In all cases, when making a determination of the adverse effects of the traumatic brain injury, the team should consider the child's age, communication abilities, social abilities, language, and pre-injury education performance.

The following questions are to guide documentation and determination of whether the disability has an adverse effect on the child's developmental/educational performance.

Cognition	What is the child's level of attention in different situations? ◦ While playing? ◦ While completing assignments? ◦ While listening to directions, etc.?

	What is the child's memory/learning ability? ◦ Short-term memory? ◦ Long-term memory? ◦ Multiple step directions? ◦ Does the child exhibit inconsistent ability to perform tasks?
	What are the child's organizational abilities? • Preparation to complete an assignment?
	What are the child's problem-solving abilities? ◦ Responding to a question? ◦ Determining how to complete a task? ◦ Responding to a social situation?
	What is the child's ability to reason in an abstract manner? ◦ Understand jokes? ◦ Literal vs. abstract comprehension?
	What is the child's ability to communicate? ◦ Use vocabulary appropriate to his/her age/grade level? ◦ Express needs and wants? ◦ Follow simple commands?
	What is the child's ability in making judgments? ◦ Playing safely? ◦ Responding to questions? ◦ Determining right from wrong?
	What is the child's level of visual perception? ◦ Differentiate between realism vs. animated? ◦ Differentiate math symbols? ◦ Understand graphs and charts? ◦ Differentiate between letters and words?
Sensory Functioning	• What is the child's awareness level of sensory stimuli? • Does the child exhibit a specific sensory aversion to certain tastes, smells, sounds, touch? • Does the child under or over react to sensory stimuli, i.e., class dismissal bell, fire alarm, tornado alarm, and other signals?

Perceptual and motor abilities	Gross motor skills ◦ What are the child's physical abilities in the following: ▪ Rolling over? ▪ Crawling? ▪ Standing? ▪ Walking? ▪ Running? ▪ Jumping? ▪ Balance? ▪ Hopping? ▪ Climbing?
	Fine motor skills ◦What are the child's physical abilities in the following: ▪Holding and eating with utensils? ▪Picking up and manipulation of small objects? ▪Holding and using a crayon? pencil? Marker? ▪Cutting with scissors? ▪Copying with crayon or pencil? ▪Folding paper, etc.? ▪Picking up small objects from table to floor? ▪Transferring objects between hands ▪Transferring objects from one surface to another?
	Perceptual skills ◦What are the child's perceptual abilities in the following: ▪Learning to read? ▪ Learning to write? ▪Completing jigsaw puzzles or other board games? ▪Playing games, i.e., four square, jump rope, soccer?
Psychosocial Behavior	Does the child become agitated easily? •Is the child able to deal with conflict in a positive mann •How does the child exhibit his/her agitation?
	Does the child often express irritability? • What causes this irritability? • Is the child able to move away from the situation that is causing the irritability?

	How does the child exhibit his/her irritability? • Does the child display aggression? • In what ways does the child display aggression, i.e., physical, verbal? • What causes the child to display aggression? • Is the child able to calm him/herself after an aggressive act?
	Does the child exhibit an attitude of apathy in certain situations, events? • Under what circumstances does the child exhibit an attitude of apathy? • Is the child able to become motivated in this same situation that has contributed to the attitude of apathy?
	Does the child exhibit insight in particular situations? • Are these situations social situations that involve either another child or an adult? • In what ways does the child exhibit this lack of insight?
	Does the child exhibit impulsivity? • How often does the child exhibit impulsivity? • Are there particular situations (i.e., during meals, play, preparation for another activity, etc.) in which the child exhibits impulsivity? • Is the child able to calm him/herself after exhibiting impulsivity?
	How does the child handle changes to routines? • How does the child react (i.e., no reaction, crying, shouting, yelling, hiding)? • Are there particular situations in which the child exhibits poor emotional control?

	Does the child express disinhibition at particular times? • What are the situations in which the child exhibits disinhibition? • What are the ways in which the child shows disinhibition, i.e., removal of clothing at inappropriate times, use of inappropriate language?
	Does the child exhibit depression and withdrawal? • In what ways does the child exhibit depression and withdrawal, i.e., refusing to participate, crying, hiding from others, refusal to work on assignments? • Are there particular situations in which the child exhibits depression and withdrawal?
	Does the child develop social relationships with peers and adults? • When do these occur, i.e., recess, mealtime, classroom free time, etc.? • What are some characteristics of these social relationships?
	Does the child accept responsibility for his/her own actions? ◦How does the child respond? ◦Are there particular situations that are problems?
Speech Language and Information Processing Skills	• Does the child only ask and answer questions or does he/she contribute to a conversation? • Does the child ask questions in class at the appropriate times? • Can the child initiate and terminate a conversation? • Can the child understand and respond to signals (verbal and/or body language) by multiple communication partner(s)? • Maintaining interaction • Can the child stay on topic? • Can the child appropriately transition to a new topic? • Can the child maintain a conversation by adding related information?

Expressive or receptive language development	Vocabulary • Does the child comprehend and use vocabulary appropriate for his/her age/grade level? ▪ General vocabulary? ▪ Content specific vocabulary? ▪ Figurative language?
	Functional Language • Can the child tell a story? • Does the child understand and use narrative discourse? • Does the child ask questions to get his/her needs met • Can the child follow simple commands? • Can the child answer basic questions?
	Academic Language • Does the child understand and use language with embedded concepts? • Does the child understand and use the language of directions (describe, explain, compare, etc.)? • Can the child follow multiple step directions? • Does the child understand and use expository text structures?
Speech reception or production	Reception • Phonemic/phonological awareness • Does the child have the ability to process individual sounds?

	Production/Articulation • Does the child use speech that is intelligible to an unfamiliar listener? • Does the child use appropriate prosodic features in: ▪ Inflection? ▪ Rate? ▪ Pitch? ▪ Fluency? • Does the child have oral motor problems? • Is the child's speech production age appropriate? • Does the child have clear speech? • Does the child have difficulty pronouncing particular sounds?

A child with a traumatic brain injury may not meet all of the above listed criteria. However, these criteria/questions may serve as guidelines when determining first, if the child has a disability and secondly, does the child need special education services.

Section 4: RELATED DEFINITIONS

Absence Seizure - involve brief, sudden lapses of consciousness. They're more common in children than in adults. Someone having an absence seizure may look like he or she is staring blankly into space for a few seconds. Then, there is a quick return to a normal level of alertness. This type of seizure usually doesn't lead to physical injury.

Aneurysm – abnormal bulge or ballooning in the wall of a blood vessel. An aneurysm can burst (rupture), causing internal bleeding and often leading to death.

Anoxia – is a condition in which there is an absence of oxygen supply to an organ's tissues although there is adequate blood flow to the tissue.

Aphasia – is a disorder that results from damage to portions of the brain that are responsible for language.

Apraxia - is a neurological disorder characterized by the inability to perform learned (familiar) movements on command, even though the command is understood and there is a willingness to perform the movement.
Broca's Aphasia – See non-fluent aphasia.

Closed Head Injury - an injury that occurs when the head suddenly and violently hits an object but the object does not break through the skull. Brain tissue is damaged, not by the presence of a foreign object within the brain, but by violent smashing, stretching, and twisting, of brain tissue. Closed brain injuries typically cause diffuse tissue damage that results in disabilities which are generalized and highly variable.

Complex (focal) Seizure - Complex focal seizures are often preceded by a simple focal seizure (aura). Patients experiencing a complex focal seizure may stare blankly into space, or experience automatisms (non-purposeful, repetitive movements such as lip smacking, blinking, grunting, gulping or shouting).

Concussion – Injury to the brain caused by a hard blow or violent shaking, causing a sudden and temporary impairment of brain function, such as a short loss of consciousness or disturbance of vision and equilibrium.

Diffuse Axonal Injury (DAI) — a shearing injury of large nerve fibers (axons covered with myelin) in many areas of the brain. It appears to be one of the two primary lesions of brain injury, the other being stretching or shearing of blood vessels from the same forces, producing hemorrhage. *(See also: Shearing)*

Dysarthria — difficulty in forming words or speaking them because of weakness of muscles used in speaking or because of disruption in the neuromotor stimulus patterns required for accuracy and velocity of speech.

Early Seizures – Seizures that occur within one week after a traumatic brain injury.

Executive Function - the group of complex mental processes and cognitive abilities (such as working memory, impulse inhibition, and reasoning) that control the skills (such as organizing tasks, remembering details, managing time, and solving problems) required for goal-directed behavior.

Fluent Aphasia - a condition where one can speak easily and fluently in long, complex sentences that don't make sense or include unrecognizable, incorrect or unnecessary words. They usually don't understand spoken language well and often don't realize that others can't understand them.

Global Aphasia – A condition in which patients suffer severe communication disabilities as a result of extensive damage to portions of the brain responsible for language.

Hematoma – Heavy bleeding into or around the brain caused by damage to a major blood vessel in the head.

Hypoxia – Decreased oxygen levels in an organ, such as the brain; less severe than anoxia.

Immediate Seizures – Seizures that occur within 24 hours of a traumatic brain injury.

Motor Aphasia – See non-fluent aphasia.

Non-fluent Aphasia – A condition in which patients have trouble recalling words and speaking in complete sentences. Also called Broca's or motor aphasia.

Complex focal seizures - Seizures that are often preceded by a simple focal seizure (aura). Patients experiencing a complex focal seizure may stare blankly into space, or experience automatisms (non-purposeful, repetitive movements such as lip smacking, blinking, grunting, gulping or shouting).

Post-concussion Syndrome (PCS) – A complex, poorly understood problem that may cause headache after head injury; in most cases, patients cannot remember the event that caused the concussion and a variable period of time prior to the injury.

Post-traumatic Epilepsy – Recurrent seizures occurring more than one week after a traumatic brain injury.

Second Impact Syndrome – Occurs when the head receives a second blow before the original concussion is totally healed.

Seizure- Involuntary movement or changes in consciousness or behavior brought on by abnormal bursts of electricity in the brain. See also epilepsy

Shearing (or Diffuse Axonal Injury) – Damage to individual neurons resulting in disruption of neural networks and the breakdown of overall communication among neurons in the brain.

Diffuse axonal injury is the shearing (tearing) of the brain's long connecting nerve fibers (axons) that happens when the brain is injured as it shifts and rotates inside the bony skull. DAI usually causes coma and injury to many different parts of the brain. Johns Hopkins Medicine

Thrombosis or Thrombus – The formation of a blood clot at the site of an injury.

Section 5: FREQUENTLY ASKED QUESTIONS

1. Is a medical report required as a part of the eligibility process for traumatic brain injury?

No. A report from a physician describing the medical condition of the child and the implications of the brain injury is not required. However, knowledge about the specific incident causing traumatic brain injury is needed as well as documentation from someone knowledgeable about TBI stating that the child displays behaviors/characteristics consistent with those typical of TBI survivors and impacting educational performance.

2. Is a medical report required as a part of the eligibility process for traumatic brain injury?

It depends. In many cases, a medical evaluation will already have been completed and the physician will send a report to the MDT with the parent's written permission.

3. How severe must the brain injury be for the child to be identified as a child with a traumatic brain injury?

The severity of the brain injury can range from mild concussion to profound injury. Regardless, the severity will be documented in a written report from a physician, or someone knowledgeable about TBI. There must be documentation of the injury's adverse effect on the development or educational performance of the child for the child to be made eligible as a child with a disability and receive ~~verify for~~ special education because of a traumatic brain injury.

4. Can a child meet the guidelines for having a traumatic brain injury if he/she is doing well academically in his/her classes?

Yes, assessment of achievement includes not only academic achievement, but also social/interpersonal skills, motor/perceptual skills, adaptive skills, speech/language skills and any skills considered as a part of that child's achievement.

5. Can a child meet the guidelines for a traumatic brain injury if the child has compensated for the brain injury by participating in therapeutic counseling, behavior management strategies, etc.?

It depends. The eligibility of traumatic brain injury is a two-pronged verification including both the traumatic injury and achievement. If the child has compensated for the brain injury through therapeutic counseling, behavior management strategies, etc., yet there is an adverse effect on the educational performance of the child, then the child could certainly be identified as a child with a traumatic brain injury.

6. Can a child who has a congenital or degenerative brain disorder or have a brain injury that was acquired by birth trauma verify as having a traumatic brain injury?

No. Both federal and state laws require that the injury to the brain be the result of an external physical force which results in total or partial functioning disability or psychosocial impairment, or both. However, the child may verify under another disability category.

SECTION 6: RESOURCES AND REFERENCES

RESOURCES

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WEB SITES

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American Academy of Pediatrics www.aap.org

Brain Injury Association of American Inc. www.biausa.org

Brain Trauma Foundation www.braintrauma.org

Brain Injury Alliance of Nebraska https://biane.org/

Clearinghouse on Disability Information Office of Special Education and Rehabilitation Services (OSERS) www.ed.gov/about/offices/list/osers/index.html

Council of Exceptional Children (CEC) www.cec.sped.org

Epilepsy Education Association www.iupui.edu

Epilepsy Foundation www.epilepsyfoundation.org

Family Voices www.familyvoice.org

Head Injury Hotline www.headinjury.com

Johns Hopkins Medicine https://www.hopkinsmedicine.org/

Mayo Foundation for Medical and Education Research

National Institute of Child Health and Human Development (NICHD) www.nichd.nih.gov

National Institute of Neurological Disorders and Stroke (NINDS) www.ninds.nih.gov

National Organization on Disability www.nod.org

National Rehabilitation Information Center (NARIC) www.NARIC.com

National Resource Center for Traumatic Brain Injury (NRCTBI)

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