Traumatic Brain Injury

Return to Learn

A guide for school success following a pediatric traumatic brain injury

Pediatric Brain Injury Program

Hennepin Healthcare

hennepinhealthcare.org
The Pediatric Brain Injury Program at Hennepin Healthcare

The Pediatric Brain Injury Program created in 1989 at Hennepin Healthcare, was the first to provide a coordinated approach to the treatment and care of children and adolescents with brain injuries. Today, this team is as active as ever treating children who are admitted to our Level I Pediatric Trauma Center, or who are being seen as an outpatient in one of our clinics. The Pediatric Brain Injury Program is part of a full range of state-of-the-art medical and rehabilitative services offered by Hennepin Healthcare’s Traumatic Brain Injury (TBI) Center.

The staff who care for patients in our Pediatric Brain Injury Program have special training to work with children and adolescents with brain injuries. Team members evaluate patients to identify problems with cognitive, behavioral, or physical functioning and provide treatment to help each child reach their maximum potential, all while providing family education and support along the way.
What is a Traumatic Brain Injury?

A TBI occurs when impact to the head or body causes the brain to be injured inside the skull. Many TBIs are mild, involving a disruption in normal functioning and a brief period of altered consciousness (disorientation, confusion, inability to follow simple commands) or a brief loss of consciousness. A mild TBI is also known as a concussion.

A more severe injury (moderate or severe TBI) may involve a prolonged loss of consciousness or coma, bleeding in the brain, or nerve cell damage. Recovery from a severe TBI can be lengthy and patients may not return to their previous level of functioning.

Each individual’s recovery from a TBI is unique and requires individual attention and care. The range of symptoms depend on the type and severity of the injury, and how the individual is responding to their injury.

Possible Symptoms After a TBI

Symptoms that can occur following a TBI can be thought of in three categories:

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<th>Cognitive</th>
<th>Emotional/Behavioral</th>
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<td>Dizziness</td>
<td>Memory problems</td>
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<td>Sensitivity to light</td>
<td>Slowed processing</td>
<td>Anxiety</td>
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<td>Sensitivity to sound</td>
<td>Learning difficulty</td>
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<td>Organization trouble</td>
<td>Lack of motivation</td>
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<td>Sleep changes</td>
<td>Easily distracted</td>
<td>Impulsivity</td>
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<td>Impaired judgment</td>
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<td></td>
<td>Language problems</td>
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Return to Learn
Things for Families to Consider

An important part of recovery is a successful return to school. Your child’s school day may be affected by physical symptoms as well as cognitive and behavioral changes.

Consider the following when planning for return to school:

• Returning to school in a timely manner following a brain injury is recommended; rarely is an extended leave from school best for the child’s recovery or overall well-being
• Symptoms and appointments can result in school absences
• School performance can vary from day to day or from morning to afternoon, and may appear erratic
• Academic performance may differ from before the injury
• Some students are challenged by certain subjects more than others, as well as by cumulative learning
• The plan for return to school and learning should be individualized for each student and their specific situation
• Ongoing communication among parents, school, health care providers, and the student is needed
• Parents may need to assist in the organization of materials, assignments, and projects
• Supplemental tutoring outside of school may be helpful for some students
• Be aware of medications and medication changes and how these impact the child at school
• Return to sports and physical activity only with health care provider’s approval
Ready, Set, Learn...

1) Initial Stage: Rest
   • No school or academic work expected
   • Length of time determined by medical provider(s)

2) First Steps
   • Medical information is shared with the school
   • Parent should contact the appropriate school staff (i.e. nurse, counselor, school TBI specialist)
   • A plan for return is developed and appropriate school staff are notified

3) Transition Back to School
   • Consider attending part time as needed. A consistent schedule is important (same classes each day rather than trying to attend some classes one day and the other classes the next)
   • Recommend focusing on core courses
   • Reduce workload; both missed work and current assignments
   • Rest in nurse’s office, or a quiet area, as needed
   • No physical education or sports until cleared by health care provider
   • Closely monitor student’s progress

Mild or No Symptoms
Gradually increase time at school
Gradually increase workload
Return to physical activities only with the approval of a medical provider
Continue to monitor closely

Symptoms Continue or Worsen
Continue modified schedule and workload
Consider implementing a 504 Plan or formalized interventions/accommodations
Consult with medical and school teams regarding need for additional support
Continue to monitor closely
Possible Changes and Strategies

Symptoms and changes that can be present after a TBI are listed on the following pages. Students with these changes may benefit from instructional and/or environmental accommodations in order to have a successful school re-entry; these strategies at school should be changed as the student recovers. It’s important to know that these behaviors represent changes and should be considered relative to a student’s level of functioning prior to the injury.
### Possible Changes

- Headaches that interfere with academic, social, or other activities, like sleep
- Increased fatigue
- Difficulty reading, taking notes, and challenges with other visual tasks
- Sensitivity to light
- Sensitivity to noise
- Fine or gross motor difficulties
- Decreased athletic performance

### Strategies

#### Headache
- Ask a doctor about headache management and use of pain medication

#### Fatigue
- Shorten school days initially
- Rest breaks scheduled or as needed

#### Visual Difficulties
- Wear tinted glasses, a sun visor, or hat to reduce glare
- Sit toward front of room, near instruction or away from windows to reduce distraction and light
- Use anti-glare covers for electronic devices and paper
- Limit screen time
- May need accommodations for reading, note taking and visual tasks
- Larger font reading material

#### Physical and Coordination Difficulties
- Leave class early or late to avoid crowded hallways
- May need assistance carrying materials (e.g., books, lunch tray)
- May require alternative transportation to and from school
- May require assistance with handwriting, typing and drawing
- Return to sports and physical activity only with health care provider’s approval
Possible Changes

- Increased difficulty with attention and distractibility
- Increased problems with memory (e.g., forgetting materials at home or at school, retrieving learned information)
- Requiring more time to process information and complete tasks
- Difficulty learning new concepts, organizing tasks, or comprehending assignments
- Difficulty expressing thoughts & ideas

<table>
<thead>
<tr>
<th>Strategies</th>
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<tr>
<td><strong>Attention</strong></td>
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<tr>
<td>• Shorten assignments or break tasks down into smaller parts</td>
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<td>• Minimize distractions in the environment</td>
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<tr>
<td>• Modify quizzes and tests (e.g., take tests in a quiet room, allow additional time, shorten the exam)</td>
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<td>• Sit student near the point of instruction</td>
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<tr>
<td>• Educational staff monitor attention and redirect as needed</td>
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<tr>
<td><strong>Memory/Organization</strong></td>
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<tr>
<td>• Minimize assignments, forgive missing assignments or non-essential work</td>
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<tr>
<td>• Provide additional help with cumulative subjects (e.g., foreign languages, math)</td>
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<tr>
<td>• Provide an extra set or electronic versions of books for use at home</td>
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<tr>
<td>• Assign a peer or staff person to help with task organization (e.g., note taking, remembering homework)</td>
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<tr>
<td>• Limit changes in daily routine as able</td>
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<tr>
<td>• Encourage use of external aids as appropriate (e.g., assignment book, calendar, daily schedule, written cues on board or desk)</td>
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<tr>
<td>• Utilize technology (e.g., electronic devices, organization apps, online school portal)</td>
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<tr>
<td>• Provide instructional repetition to support learning</td>
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<tr>
<td>• Review student’s assignments at home daily</td>
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<tr>
<td>Strategies (continued)</td>
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<tr>
<td><strong>Receptive/Expressive Language</strong></td>
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<tr>
<td>- Allow written and verbal formats for assignments and tests</td>
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<td>- Limit length of verbal directions and verify understanding</td>
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<td>- Consider using specific vs. open-ended questions</td>
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<tr>
<td><strong>Reading</strong></td>
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<tr>
<td>- Utilize audio books and text-to-speech programs</td>
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<td>- Give tests orally</td>
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<tr>
<td>- Provide access to lecture notes</td>
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<tr>
<td>- Offer short-term remedial reading instruction</td>
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<tr>
<td>- Shorten reading assignments</td>
</tr>
<tr>
<td><strong>Math</strong></td>
</tr>
<tr>
<td>- Provide extra help for concepts that have not been mastered</td>
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<tr>
<td>- Use grid paper to organize columns for calculations</td>
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<tr>
<td>- May need extra help recalling memorized math facts</td>
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<tr>
<td>- May benefit from additional instruction for generalization of math skills</td>
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</table>
Emotional/Behavioral

Possible Changes

• Increase in pre-existing mental or behavioral health signs and symptoms
• Short-term emotional distress due to activity restrictions
• Changes in mood (e.g., emotional instability, depression, anxiety)
• Changes in personality (e.g., impulsivity, aggressiveness, disrespectful comments, inappropriate behavior, decreased frustration tolerance)
• Increased irritability with stimulation
• Emotional/behavioral outbursts
• More socially withdrawn
• Changes in peer friendships and social isolation

Strategies

Emotional/Behavioral
• Encourage participation in normal daily activities
• Be flexible in choices while maintaining expectations
• Review behavioral needs and effectiveness of accommodations as needed
• Involve school counselor, social worker, or psychologist to facilitate insight into emotional changes, assist in developing coping skills, problem-solving and conflict resolution strategies
• Encourage healthy sleep practices

Social Support
• Provide opportunities for peer interactions (e.g., recess, study hall, lunch)
• Encourage participation in social activities outside of school as able
• Consider a buddy or peer tutor for specific academic or social activities
• Offer opportunities for a student’s continued involvement with his or her sports team, even if they are unable to play
• With student’s permission, help educate others about brain injury
• Provide extra supervision in unstructured activities
School Supports

Upon return to school, a staff person should be assigned to monitor the student’s adjustment (e.g., attendance, assignment completion), and arrangements should be made for frequent check-ins. Schools have several options for students who are struggling. Factors that will help determine the right plan include: severity of the injury and how it impacts the student’s functioning, length of time symptoms are present, and the student’s pre-injury level of functioning.

- **General Accommodations:** Most students require short-term accommodations in the general education setting before symptoms resolve. Examples include a shortened school day, reduced homework, rest breaks, and testing in a quiet environment.

- **504 Plan:** Section 504 of the Rehabilitation Act of 1973 is a Civil Rights statute that protects persons of all ages with disabilities from discrimination, and covers public and private agencies which receive federal financial assistance, such as public schools. A 504 Plan may be created if considered appropriate, and can include adjustments to the environment, materials and instructional methods. For many students returning with a mild TBI, a 504 Plan is sufficient to meet their needs.
School Supports (continued)

- **Special Education Services**: If a student’s need for extra educational support becomes chronic or is expected to be long-term, special education services may be required. Special education services may include the support of special education teachers and related services, as well as the involvement of a school TBI specialist and nurse. A parent/guardian or education staff can request a special education evaluation. Determination of eligibility must be completed before an Individual Education Plan (IEP) is developed or services are provided.

Most students only require short-term accommodations before symptoms resolve.
About the Traumatic Brain Injury Center

The Traumatic Brain Injury Center at Hennepin Healthcare offers comprehensive, multidisciplinary patient care, education and research to serve people who have sustained a traumatic brain injury (TBI). We provide a full range of state-of-the-art medical and rehabilitative services. Our expertise spans the continuum of care for adult and pediatric TBI patients, from prevention to emergency care, inpatient neurosurgery, critical care, rehabilitation and outpatient specialty services offered by the Traumatic Brain Injury Outpatient Program.

Each year the staff within the Traumatic Brain Injury Center care for thousands of patients who have sustained a brain injury. Our committed team members provide compassionate care utilizing advanced technology. We offer nationally recognized medical expertise to provide the best possible care, every time.
Hennepin Healthcare Resources

Pediatric Brain Injury Program
612-873-2259
hennepinhealthcare.org/pediatricbraininjury

INPATIENT CARE:
HCMC
730 South 8th Street
Minneapolis, MN 55415

OUTPATIENT CARE:
Clinic & Specialty Center
715 South 8th Street, Level 3
Minneapolis, MN 55404

Appointments: 612-873-6663

Pediatric Brain Injury Clinic—ages 12 & younger
Questions: 612-873-2259

Traumatic Brain Injury Outpatient Program—ages 13 & older
Questions: 612-873-4172
hennepinhealthcare.org/braininjury

Each individual’s recovery from a TBI is unique and requires individual attention and care.
Other Resources

EDUCATIONAL SUPPORT
Statewide Specialist for Traumatic Brain Injury
MN Low Incidence Projects | Metro ECSU
2 Pine Tree Drive, Suite 101
Arden Hills, MN 55112
612-638-1506
mnlowincidenceprojects.org/projects/tbi/index.html

SUPPORT FOR INDIVIDUALS WITH BRAIN INJURY AND THEIR FAMILIES
Minnesota Brain Injury Alliance
2277 Highway 36 West, Suite 200
Roseville, MN 55113
612-378-2742
braininjurymn.org

MENTAL HEALTH RESOURCES
National Suicide Prevention Lifeline:
24/7 free support for people in distress
800-273-8255

Crisis Text Line: Text HOME to 741741 for free, 24/7 crisis support in the US

RESOURCES FOR CHILDREN WITH DISABILITIES
PACER Center
8161 Normandale Boulevard
Bloomington, MN 55437
952-838-9000
pacer.org
Pediatric Brain Injury Program

Inpatient Services
HCMC
730 South 8th Street
Minneapolis, MN 55415

Outpatient Services
Clinic & Specialty Center
715 South 8th Street, Level 3
Minneapolis, MN 55404
Appointments: 612-873-6663

www.hennepinhealthcare.org/pediatricbraininjury

For more information or to request materials, call the Pediatric Brain Injury Program Coordinator: 612-873-2259

Please consider making a donation to support the Pediatric Brain Injury Program.
The Hennepin Healthcare Foundation’s Pediatric Brain Injury Fund is used to provide items of comfort, education and support to patients and families. Your donations are greatly appreciated.

To contribute
Visit: Hennepinhealthcare.org/hhf and direct your gift to Pediatric Brain Injury under Traumatic Brain Injury.
Call: 612-873-6090
Mail: 701 Park Avenue, LSB3, Minneapolis, MN 55415

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ATTENTION: If you do not speak English or use American Sign Language, language assistance services, free of charge, are available to you. Call 612-873-5663.

ATENCIÓN: Si habla español, tiene a su disposición servicios gratuitos de asistencia lingüística. Llame al 612-873-5663.

OGEYSIIS: Haddii aad ku hadasho Soomaali, adeegyada kaalmada luqadda, oo lacag la’aan ah, waxaa laga heli karaa in aad soo wacdho 612-873-5663.

Donate. www.hennepinhealthcare.org.foundation