

PEDIATRIC BRAIN INJURY PROGRAM

HENNEPIN COUNTY MEDICAL CENTER

MY
CHILD'S
BRAIN
INJURY

Helping kids reach as far as possible



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INTRODUCTION

This booklet has been prepared by the staff of the Pediatric Brain Injury Program for the family and friends of a child with a brain injury. This booklet will help you understand your child's care. Feel free to ask questions about any information in this booklet or about the care and treatment of your child. The Pediatric Brain Injury Program is part of the Traumatic Brain Injury Center at Hennepin County Medical Center.



ACQUIRED BRAIN INJURY IN CHILDREN

There are two major types of brain injury in children.

- Brain injury that happens before or during birth.
- Brain injury that happens after a child is born.

This second type is called an “acquired brain injury.” The information in this booklet is about acquired brain injury.

An acquired brain injury:

- Happens after birth.
- Damages the brain.
- Results from an outside force (traumatic injury) or from changes within the brain (non-traumatic).

An acquired **traumatic** brain injury is caused by the brain moving back and forth inside the skull and being bumped, bruised or twisted. The injury can be mild, moderate or severe.

This type of acquired brain injury is usually caused by:

- Car crash
- Sports injury
- Fall
- Physical fight
- Bicycle crash
- Being shaken by someone
- Gunshot wounds
- Assault

An acquired **non-traumatic** brain injury is caused by the brain not getting enough oxygen to keep the brain cells healthy. This injury can be mild, moderate or severe. This is often called an anoxic or hypoxic brain injury. *

This type of acquired brain injury is usually caused by:

- Suffocation
- Near drowning
- Carbon monoxide poisoning
- Smoke inhalation
- Inhaling or swallowing chemicals (paint, glue, gases, etc.)
- Stroke
- Brain infection (meningitis, encephalitis)

Care plans are often the same for children with **traumatic** and **non-traumatic** brain injuries.

* Please look at "WORDS WE USE" for explanation.

WHEN A BRAIN IS INJURED

Changes can happen in how a person does everyday things like:

- walk
- talk and understand language
- organize tasks
- remember (memory)
- begin activities
- eat, feed self
- interact with others
- make safe decisions
- read and write
- behave or control oneself
- solve problems
- pay attention

These changes can be short-term or life-long changes.

WHAT HAPPENS NEXT

The next step will depend on how badly your child was injured. It will also depend on any other injuries your child may have.

- Your child may be discharged to home and may not need any rehabilitation. (Mild Brain Injury)
- Your child may be discharged to home but may still need outpatient rehabilitation. (Mild to Moderate Brain Injury)
- Your child may receive short-term rehabilitation while at HCMC. (Moderate Brain Injury)
- If rehabilitation treatment will be longer than 2 weeks, your child may be transferred to another hospital or rehabilitation setting. (Moderate to Severe Brain Injury)
- The Pediatric Brain Injury Team will help you transition to home and school. (Refer to page 24 for members of team.)

MILD TRAUMATIC BRAIN INJURY

(Also called “Concussion”)

Mild traumatic brain injury

- The most common type of brain injury.
- After a blow to the head, a person is dazed, confused and may lose consciousness for a short while.
- Even though your child may look fine, nerve cells in the brain may have been injured.
- This type of injury cannot always be seen on x-rays or CT scans.
- The care of a child with a mild traumatic brain injury includes watching the child closely.

What may happen to your child while in the hospital

The doctors and nurses will watch your child closely for about 24 hours. If your child still has brain injury-related problems or becomes worse, the Pediatric Brain Injury Team will evaluate your child. If your child does not appear to have any brain injury-related problems after 24 hours, no further treatment is needed at this time.

Ways to help your child

Your child has had a mild brain injury and may seem different than his usual self. Some of the

following ideas might be helpful while your child gets better.

- Keep your child’s room calm and quiet.
- Lower the lights.
- Limit the number of visitors and how long they stay, limit TV/radio, limit noise and movement. Too much talking, noise, touching or activity can confuse your child even more.
- Talk to your child in a calm voice.
- Answer your child’s questions, but don’t ask if she remembers what happened. For example: “It’s morning. You’re in the hospital.”
- Avoid trying to reason with or negotiate with your child.
- Avoid discussing your child’s condition at her bedside.
- Bring in pictures, a favorite toy, book or music. Your child needs to hear, see and touch things that are from home.
- Siblings/friends are welcome to visit one or two at a time. Check with the nurse first.
- Keep daily routines the same as much as possible.
- If you have questions, please feel free to ask. Your nurse can direct you to the right person.
- We recommend you call your health insurance plan. Tell them your child is in the hospital. Call your member services number. This should be done as soon as you can.

GOING HOME

Call immediately if you see any of the following changes the first few days. Call your child's regular doctor or clinic or call the HCMC Pediatric Emergency Department.*

What to watch for after your child goes home:

- Blood or fluid coming out of nose or ears.
- The pupil of one eye is bigger than the other one.
- A convulsion (seizure).
- Weakness in the face, arms or legs.
- Vomiting more than once.
- Blurred or double vision.
- Slurring words or has difficulty talking.
- Looks pale, sweaty or weak.
- A fever over 101.5° F.

In the first week, it is common for your child to:

- Have headaches.
- Feel dizzy, unsteady, or have trouble walking.
- Be sleepy, moody or crabby.
- Be confused or mixed up.

If any of these do not get better, or things get worse, call your child's regular doctor or clinic or call the HCMC Pediatric Emergency Department. *

*** Telephone numbers are found at the back of this booklet.**

After the first week

Your child may seem back to normal physically but it may take 2-3 months for the brain to heal. As your child heals, you may notice some of the following problems. These should get better or go away in the next few months:

- Headaches
- Dizziness
- Sensitivity to noise or lights
- Hearing problems
- Feeling tired
- Difficulty sleeping
- Poor memory
- Trouble paying attention or concentrating
- Moody or crabby
- Temper tantrums

If you have questions or are concerned, call your child's doctor and/or the Pediatric Brain Injury Program Coordinator. If these problems have not gone away in 2-3 months, contact your child's doctor. Your child may need further evaluation.

Your child should see his regular doctor in 2-3 weeks after being discharged from the hospital.

SAFETY: It is important to prevent another brain injury.

Prevent Traumatic Brain Injury

- Your child should not ride a bike or participate in sports or other physical activity without first getting his doctor's approval. If you have questions, ask your child's doctor.
- Use a helmet, knee and elbow pads, and mouth guards.
- Always use car seats and seat belts.
- Use the *correct* car seat for your child's age and size.
- Store firearms safely.
- Throw away car seats or bike helmets that were involved in the crash.
- Most car insurance companies will pay to replace a car seat involved in a crash. Call your insurance company to find out how to get your child's car seat replaced.
- For more safety information, call your health plan's safety resource number.*
- Make sure windows are safe and properly installed.
- Never shake your baby or toddler. If caregiver feels out of control and getting angry with child, call friend or family member for support. Place baby in safe place (crib).
- Make sure your baby or toddler is supervised near stairs and bathtub.

Prevent Non-traumatic Brain Injury

- Keep medicines and chemicals (cleaning supplies) out of children's reach.
- Make sure your home has working carbon monoxide and smoke detectors; check them monthly, plus a working fire extinguisher.
- Never leave children unattended near any source of water.
- For more safety information, call the your health plan's safety resource number.*

GOING BACK TO SCHOOL

- Your child should return to school as soon as your doctor says it is okay.
- The number of school days missed will depend upon your child's injury.
- It may take time for your child to return to full school days. Your child may start with half days.
- Some of the changes your child may have from the injury (such as those in the box listed on page 4) could cause problems at school. The Pediatric Brain Injury Program (PBIP) helps with re-entry to school and helps to identify learning needs.
- It is important that you talk to your child's teacher to find out how your child is doing at school and if there are any problems.
- If you have questions about school issues, please contact your child's doctor and/or the HCMC Pediatric Brain Injury Program Coordinator.

*** Telephone numbers are found at the back of this booklet.**

MODERATE TO SEVERE BRAIN INJURY

A Moderate to Severe Traumatic Brain Injury:

- Brain is bumped, bruised or twisted.
- There may be bleeding in one or many parts of the brain.
- Nerve cells in the brain are damaged.
- Damage is usually seen on x-rays or CT scans.
- There may be swelling of the brain.
- There usually will be a loss of consciousness.
- There may be tearing of the small blood vessels and nerves. This is called a “shearing injury” and it may affect many parts of the brain.
- Recovery will depend on the extent of the injury.
- A severe brain injury can result in coma or even death.

What happens to your child in the Pediatric Intensive Care Unit (PICU)

The nurses will watch your child very closely.

Your child may have some of the following equipment:

- A ventilator to help your child breathe.
- A monitor that shows your child’s heart rate, blood pressure, and other vital signs.
- A pressure monitor in your child’s head to monitor brain pressure and swelling.
- Several IV’s and pumps to give fluids, medicine, and to draw blood.
- A nasogastric tube (NG tube) to empty the stomach and prevent stress ulcers.
- A feeding tube (NJ tube) for liquid nutrition.
- A catheter in your child’s bladder to drain urine.
- As your child gets better, the equipment will be removed.
- If your child was on a ventilator he may have a sore throat because of the tube that was in his throat. This will go away.

Your child may have some of the following procedures and tests:

- Frequent checks to monitor brain function. This includes checking your child's response to pain, ability to follow commands, and how his pupils react to light.
- X-rays, CT scans, and MRI scans to evaluate the brain injury.
- Many blood tests will be done.

If your child is in a coma

A coma is when a child is unconscious and cannot respond and talk. It may last for days, weeks or even months.

- Your child's ability to respond to light, sound and follow commands is affected. She may not be aware of what is happening around her.
- Your child may react to pain, touch or sounds.
- Your child may make sounds, smack his lips, or grab items put in his hand.

It is hard to judge how "deep" the coma is.

- Being in a coma is not as simple as being "asleep" or "awake."
- The level of coma may change from day to day.
- It is unknown what a child hears or understands while in a coma.

Children don't just "wake up" from a coma.

- This is a slow process.
- TV programs and movies that show people waking up from a coma quickly and behaving normally are not realistic.
- Your child gradually becomes aware of his surroundings and begins to respond.
- Your child may be confused, agitated, swear, or behave in strange or violent ways. These behaviors are mostly temporary and are a normal part of coming out of a coma.
- Your child will probably not have any memory of their behavior during this part of recovery.
- For more information about the stages of coma recovery, ask for written handouts such as the Rancho Los Amigos Cognitive Functioning Scale.

We will support your family while your child is in the hospital.

- You will be kept informed about your child's condition by the child's doctors and nurses. This may include meeting with members of the Pediatric Brain Injury Team.
- We encourage families to participate in their child's care and ask questions. You will be asked to be involved only as much as you are comfortable with and as is medically safe. Nurses and therapists will show you how you can be involved in your child's care.
- We understand your family's need to be with your child; however, you will be asked to follow the visiting guidelines posted in the PICU.
- When available, rooms with beds and bathroom are set aside for families with children in the PICU.

Ways to help your child

- The medical team is not allowed to give information to extended family or other visitors. It is your responsibility to share this information with them. It may be helpful to name one family member who will be the

person to speak to the rest of the family. Phones are available in the family room for your use. Please share this number with your family. Ask other family members not to call the PICU.

- Keep your child's area calm and quiet.
- Lower the lights.
- Limit the number of visitors and how long they stay. Limit TV/radio, noise and movement. Too much talking, noise, touching or activity can confuse your child even more.
- Talk to your child in a calm voice.
- Let your child know who you are and who is with you.
- Answer your child's questions, but don't ask if she remembers what happened. For example, "It's morning. You're in the hospital."
- Avoid discussing your child's condition at her bedside.
- Avoid using questions; instead give your child simple instructions. For example, "try to move your arm" rather than "can you move your arm?"
- Calmly remind your child of where he is and what has happened.
- Tell your child what you are about to do. For example, "I'm going to brush your hair."

- Avoid trying to reason with or negotiate with your child. For example, “If you eat all your lunch, you’ll get to go home quicker.”
- Tell the staff about your family’s routines at home (such as bedtime).
- Encourage your child to practice skills but give your child time to respond.
- If your child is unable to speak, staff will help identify a way to respond. For example, thumbs up for “yes”.
- Let your child rest, it helps reduce confusion and agitation.
- Bring in pictures, a favorite toy, book or music. Your child needs to hear, see and touch things that are from home.
- Siblings/friends are welcome to visit one or two at a time. Check with the nurse first.
- Please refer to your “Welcome to Pediatrics” handbook for further information.
- We recommend you call your health insurance plan. Tell them your child is in the hospital. Call your member services number. This should be done as soon as you can.
- Allow family members and friends to help you by cooking, babysitting, doing laundry, buying groceries and shopping.
- Ask questions frequently.
- Remember, each child heals at a different rate.

NEXT STEPS

- Your child may be transferred from the PICU to the regular pediatric unit when medically stable and ready to leave the critical care area.
- Your child may receive short-term rehabilitation while at HCMC. (Moderate to Severe Brain Injury)
- If rehabilitation treatment will be longer than 2 weeks, your child may be transferred to another hospital or rehabilitation setting. (Moderate to Severe Brain Injury)
- Your child may be discharged to home but may still need outpatient rehabilitation. (Moderate Brain Injury)
- The Pediatric Brain Injury Team will help your child transition to home and school. (Refer to page 24 for members.)
- Your child may need a feeding tube (gastrostomy tube) for long term nutrition/hydration. (Moderate to Severe Brain Injury)
- Your child may need an artificial airway (tracheostomy) if having trouble breathing off of the ventilator. (Moderate to Severe Brain Injury).

Take Care of Yourself

- It is normal to have many emotions, including: sadness, anger, grief, and to feel overwhelmed and frustrated.
- Take frequent breaks for meals and rest.

GOING HOME

Your child may seem back to normal physically, but it takes weeks or months for the injury to heal. Many children who have a moderate or severe brain injury have some of the following problems during their recovery:

- Headaches.
- Tires easily.
- Trouble sleeping.
- Forgets things, has poor memory.
- Trouble learning new things.
- Acts differently at school.
- Difficulty starting or organizing homework or new projects.
- Difficulty resuming household activities and responsibilities.
- Difficulty calming down.
- Poor judgement (acts without thinking, does something dangerous).
- Cries, laughs or talks at the wrong times.
- Quick mood changes.
- Gets frustrated more quickly.
- Has a hard time finding the right words.
- Shorter attention span.
- Changes in hearing or vision.

Children who have had a severe brain injury may have additional problems with physical activity or movement. Planning for their return home depends on their age and level of injury.

Your child should see his regular doctor 2-3 weeks after being discharged from the hospital.

SAFETY: It is important to prevent another brain injury.

Prevent Traumatic Brain Injury:

- Your child should not ride a bike or participate in sports or other physical activity without first getting his doctor's approval. If you have questions, ask your child's doctor.
- Use a helmet, knee and elbow pads, and mouth guards.
- Always use car seats and seat belts.
- Store firearms safely.
- Throw away car seats or bike helmets that were involved in the crash.
- Most car insurance companies will pay to replace a car seat involved in a crash. Call your insurance company to find out how to get your child's car seat replaced.

Prevent Non-traumatic Brain Injury:

- Keep medicines and chemicals (cleaning supplies) out of children's reach.
- Make sure your home has working carbon monoxide and smoke detectors; check monthly.
- Never leave a child unattended near any source of water.
- For more safety information, call your health plan's safety resource number. *

GOING BACK TO SCHOOL

- The Pediatric Brain Injury Team will work with you and your child's school to decide when your child is ready to return to school.
- Teachers, other family members, and your child's friends and schoolmates may see changes in your child that you don't see. Some changes may be more noticeable when your child gets involved with more difficult tasks.

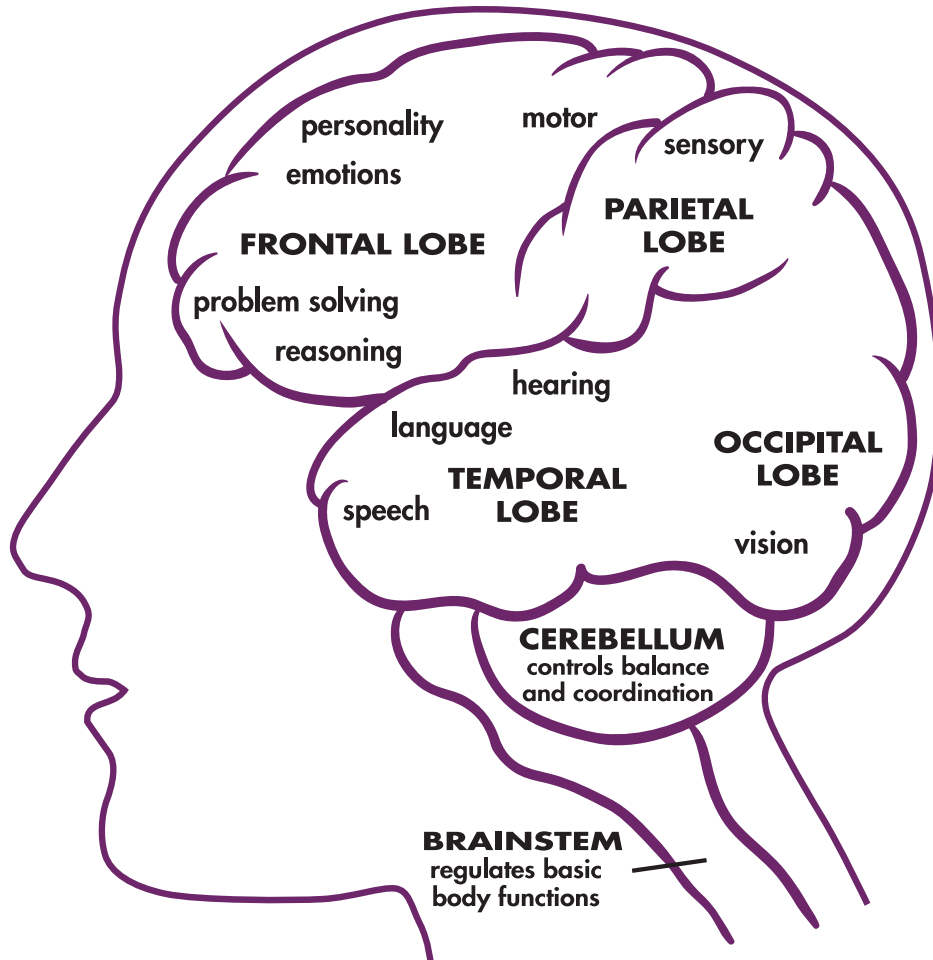
At first your child may need:

- Tutoring at home.
- Shortened school days.
- Frequent rest periods.
- Changes in how schoolwork is presented.
- Help with daily school activities (going from class to class, completing schoolwork).

*** Telephone numbers are found at the back of this booklet.**

AREAS OF THE BRAIN

What each area of the brain does...



MEMBERS OF THE PEDIATRIC BRAIN INJURY TEAM

The staff of this team are all specially trained in serving children and adolescents

The child and his or her family are important members of the team.

Audiologist: identifies, evaluates, and provides non-medical treatment of hearing loss and balance problems.

Chaplain: provides hospitality and spiritual support to the child and family members; helps child, family members and friends cope with child's injuries and hospitalization.

Child Life Specialist: helps to reduce stress that children may feel about being in the hospital; uses education, play activities and emotional support to help children explore their surroundings, express their feelings and better understand their hospital stay.

Child Psychologist: evaluates and treats emotional, behavioral and adjustment problems which may arise following a brain injury, during hospitalization or after discharge; also monitors the emotional needs and psychological adjustment of siblings and other family members.

Dietitian/Nutritionist: evaluates and makes plans to meet the child's nutritional needs; this may include feedings by mouth, through a tube, through an IV or a combination of these methods.

Intensivist: a doctor who specializes in treating and managing critically ill or injured children in a Pediatric Intensive Care Unit (PICU).

Neurologist: a doctor who specializes in assessing a child's neurological problems after a brain injury; works with child and family in managing seizures; assists in determining need for rehabilitation services and makes recommendation for where child's rehabilitation needs can best be met.

Neuropsychologist: evaluates the child to see if there is a problem in the brain that is causing trouble with thinking, understanding, remembering, reasoning and behaving. Standardized tests and clinical procedures are used to check for the child's strengths and weaknesses in various mental functions.

Nurse: provides direct patient care for children and coordinates other patient care activities such as lab or x-ray tests, therapy sessions, and visitors. Supports the child and the family throughout the hospital stay; works closely with other members of the team including care conferences with the family and team members.

Occupational Therapist: evaluates the child's hand and arm use, coordination and muscle strength, visual perception and their ability to play, feed and dress.

Pediatricians and Resident Physicians: doctors who specialize in treating and managing a child's health care needs for both well child care and when the child is sick or injured.

Physiatrist: a doctor who assesses and treats children with brain injuries and medically manages all phases of their rehabilitation such as therapies and special equipment.

Physical Therapist: evaluates parts of large motor skills (such as walking), movement, muscle strength, muscle tone, posture, coordination, endurance and general mobility (such as transfers and walking).

Social Worker: provides emotional support to help the patient and family adjust to being in the hospital; works with the team to make sure the family's needs and level of understanding of the child's condition are known; coordinates discharge planning, referrals to schools, community resources and helps with financial and insurance concerns.

Speech-Language Pathologist: evaluates and treats the child's ability to understand (receptive) and express language, cognitive skills (paying attention and problem-solving), reading and writing; evaluates and manages problems with feeding and swallowing. Provides alternative means of communication if unable to use voice or speak.

Other providers who may be involved in your child's care:

ENT (Ear, Nose and Throat) Specialist:

a doctor, also called an otolaryngologist, who evaluates and treats problems with the ears, nose and throat such as facial bone fractures, tinnitus, facial tissue trauma; works closely with the audiologist.

Neurosurgeon: a doctor who operates on the brain, spinal cord, and other parts of the nervous system.

Ophthalmologist: a doctor who evaluates, operates on and treats patients with eye injuries and diseases.

Oromaxillofacial Surgeon (OMFS): doctor who specializes in surgery of the mouth, jaw and face.

Orthopaedic Surgeon: a doctor who assesses, operates on and treats patients with muscle/skeletal bone problems, such as broken bones, joint problems, torn muscles and ligaments.

WORDS WE USE

ADL (Activities of Daily Living): routine activities of personal hygiene and health (including bathing, dressing, feeding). Also called Self-Help Skills.

Amnesia: not being able to remember; forgetful.

Anoxia: a lack of oxygen to the brain causing brain damage. Occurs when blood flow is reduced as in suffocation, near drowning, carbon monoxide (CO) poisoning and injuries.

Aphasia: unable to speak or understand words.

Ataxia: poor balance and coordination.

Attention: the ability to focus or respond to a task for a normal amount of time.

Brainstem: the lower portion of the brain, which connects it to the spinal cord. The brainstem controls the body's most important functions such as breathing, blood pressure, heart rate and sleeping.

Cerebellum: the area in the back of the brain which helps control balance and fine motor movements (moving fingers).

Cerebrospinal Fluid (CSF): the liquid made by the brain that fills the ventricles (cavities) in the brain and surrounds the brain and spinal cord.

Cognition: processes of thinking, understanding, reasoning and memory.

Coma: a state of unresponsiveness where the person cannot be aroused and/or does not respond. This unconsciousness lasts for more than a brief period of time. For more information, ask the program coordinator for the booklet "COMA, When Your Child is in a Coma."

Concussion: the most common type of head injury with or without loss of consciousness; often called a mild traumatic brain injury. For more information ask the program coordinator for the booklet "Bing, Bang, Bong – When Your Child Has a Concussion."

Cortex (cerebrum): the largest part of the brain. It contains two cerebral hemispheres where most thinking and cognitive functioning takes place.

Craniotomy: a surgical opening through the skull.

CT Head Scan: a series of x-rays taken at different levels that show details of the skull and brain.

Diffuse brain injury: brain damage which covers many areas of the brain; common in closed head injuries due to the brain moving about inside the skull.

Disinhibition: not able to control impulses and emotions.

Disorientation: difficulty recognizing people, a place and/or the time of day.

Dura: the outermost tissue covering of the brain.

Edema: collection of fluid (water) causing tissue swelling.

Emotional lability: strong mood swings that happen suddenly or without a clear reason.

Evacuation of hematoma: a surgical procedure to remove a collection of blood from the brain.

Focal brain injury: damage that is in one area of the brain.

Frontal lobe: the area of the brain located at the front of the skull behind the forehead. This area plays a role in controlling emotions and impulses, motivation, social skills, and expressive language.

Gastrostomy Tube: a tube surgically inserted into the stomach for an alternative method to provide nutrition.

Glasgow Coma Scale: a scale from 3 (no responding) to 15 (fully alert) that indicates how severe the brain injury is. This scale rates someone's level of consciousness using three factors: motor (muscle) responses, eye opening, and verbal responses.

Hematoma: collection of blood in tissues or space caused by broken blood vessels.

Epidural hematoma: bleeding between the skull and the dura (the outermost tissue covering of the brain).

Intracerebral hematoma: bleeding into the brain itself. This often happens following bruising or tearing of the brain tissue.

Subarachnoid hematoma: bleeding around the surfaces of the brain between the dura and arachnoid membranes.

Subdural hematoma: bleeding into the space between the dura and the brain. This creates pressure on the brain.

Hemiparesis: weakness on one side of the body due to injury to the motor areas of the brain.

Hemorrhage: bleeding following traumatic injury; bleeding may occur within the brain when blood vessels in the skull or the brain are damaged.

Hydrocephalus: when too much cerebral spinal fluid (CSF) is collected in the ventricles, putting pressure on the brain.

IV (intravenous): this is a method of delivering fluids directly into the bloodstream through a needle in a vein.

Levels of consciousness: Rancho Los Amigos Cognitive Scale: an assessment tool describing the behavioral stages of an individual with a brain injury. A tool used in rehabilitation.

MRI (magnetic resonance imaging): a computerized picture, often used to show injury to soft tissue like the brain or spinal cord.

Memory: the process of organizing and storing information and then being able to recall these things at a later time.

Occipital lobe: the area of the back of the brain involved in how you understand what you see.

Parietal lobe: the upper middle area of each side of the brain behind the temples. This area is involved in how sensations are processed by the brain; linked to speech and writing.

Post-traumatic amnesia: a loss of memory related to a traumatic event and the period immediately following the trauma.

Problem-solving: skills used in reasoning, judgement and insight in solving problems.

Range of Motion (ROM): exercises or movement of a joint or limb to help prevent limiting its movement.

Retrograde amnesia: memory loss of events and periods of time before an injury or accident; this is the main reason that the actual accident is not remembered by the child.

Self-help skills: routine activities of personal hygiene and health (including bathing, dressing, feeding). Also called ADL's (activities of daily living).

Shearing injury: the tearing of the brain tissue and blood vessels caused by movement of the brain tissue within the skull or against the skull's sharp bony edges.

Temporal lobe: the lower middle part of each side of the brain used in processing sounds; involved in memory.

Tracheostomy: opening into the trachea (wind pipe) to provide another airway.

Ventilator: also known as a respirator; a machine that helps a person breathe when they cannot breathe on their own.

Ventricles: four cavities in the brain which are filled with cerebrospinal fluid; they act as cushions when the brain is hit.

Ventriculostomy: an opening through the skull into the ventricles; special equipment to monitor pressure inside the skull or to drain cerebral spinal fluid (CSF) is placed into the ventricles through this opening.

Ventriculo-peritoneal shunt (VP shunt): a surgical procedure that places a tube connecting a ventricle (cavity in the brain) to the peritoneum (space in the abdomen); excess cerebral spinal fluid (CSF) in the ventricles drains through the tube into the peritoneum where the CSF is absorbed into the body.

Visual field deficit: not being able to see anything in a specific area of the visual field.

Visual perception: the ability to understand, explain, and give meaning to what is seen.

PBI TEAM MEMBER NAME/ROLE

CONTACT PHONE NUMBER

Staff Doctor

Resident

Nurse

Social Worker

Neurologist

Intensivist

Orthopaedic Surgeon

Neurosurgeon

PBI TEAM MEMBER NAME/ROLE

CONTACT PHONE NUMBER

Other Doctors

Speech Language Pathologist

Occupational Therapist

Physical Therapist

Neuropsychologist

Other PBI Team Members

RESOURCES FOR FAMILIES

1. **BRAIN INJURY ASSOCIATION of Minnesota**

34–13th Avenue NE, Suite B001
 Minneapolis, MN 55413-1005
 612-378-2742; 1-800-669-6442
www.braininjurymn.org

This organization offers educational materials, support and resource information to children and families living with brain injury. Offers advocacy services and works to improve services for persons with brain injury.

2. **LOCAL SUPPORT GROUPS**

Call the BRAIN INJURY ASSOCIATION for information:
 612-378-2742; 1-800-669-6442

3. **STATE TRAUMATIC BRAIN INJURY SPECIALIST, MINNESOTA DEPARTMENT OF CHILDREN, FAMILIES AND LEARNING**

612-638-1532

The State Traumatic Brain Injury (TBI) Specialist serves as resource on TBI for educators and families.

4. **BRAIN INJURY ASSOCIATION of America**

8201 Greensboro Drive, Suite 611
 McLain, VA 22102
 Family Helpline: 1-800-444-6443
 Consumer Questions: 703-761-0750
www.biausa.org

National organization provides resources, support to state organizations. Advocates for improved laws, prevention measures, and other services.

5. **PACER**

8161 Normandale Blvd.
 Minneapolis, MN 55437-1044
 1-800-53-PACER (out state)
 952-838-9000 (local)
www.pacer.org

An organization of parents who assist families with understanding rights and responsibilities of parents/children in getting educational services for students with special needs. Offers conferences, educational materials, and help with technology resources.

6. **MN SAFE KIDS COORDINATOR**

651-228-7314

Offers general safety education for children 0-14 years.

RESOURCES IN OUR COMMUNITY

Hennepin County Medical Center (HCMC)

- Pediatric Emergency Department..... (612) 873-3160
- Pediatric Clinic..... (612) 873-2435
- Pediatric Brain Injury Program (612) 873-2680

Metropolitan Health Plan (MHP)

- Member Services..... (612) 347-6308
- Safety Resources (Car Seats)..... (612) 347-3682

Medica

- “Call Link” (800) 962-9497
- Customer Service:
 - Medica through Employer Group Plan..... (952) 945-8000
 - Medica Medical Assistance Plan..... (952) 992-2322
 - Safety Resources..... (952) 992-2322

U-Care Minnesota

- Health Connection..... (800) 942-7858
- Customer Service..... (800) 203-7225 or (612) 676-3200
- Safety Resources (Car Seats)..... (612) 676-3200

Public Health Nursing

If needed, information will be on your discharge form.

Other: _____

Other: _____



PEDIATRIC BRAIN INJURY PROGRAM
HENNEPIN COUNTY MEDICAL CENTER
701 Park Avenue
Minneapolis, MN 55415
(612) 873-2680