

Mild Traumatic Brain Injury

A mild traumatic brain injury (mTBI) — or a **concussion** — is a physical injury to the brain. mTBIs are common in children and may be caused by a fall or a blow to the head. An mTBI might also happen if the head hits an object, such as in a car or bicycle accident. Your child may pass out for a short time or feel dazed or confused.

An mTBI can be very mild to complicated mild. Your child's doctor will classify the severity of the mTBI based on "scales" and tests. Your child may need to stay in the hospital so they can be watched for a while.

The time it takes to recover from an mTBI is different for each child. Most children do not have serious problems after mTBI, but some may need to see a rehabilitation doctor who specializes in mTBI treatment.



Symptoms of a mild traumatic brain injury (mTBI)				
Physical		Thinking	Emotional	Sleep
<ul style="list-style-type: none"> • Headaches • Nausea (feel like they're going to throw up)* • Vomiting (throwing up)* • Tired* 	<ul style="list-style-type: none"> • Problems with sight • Sensitivity to light* • Sensitivity to noise* • Numbness or tingling • Feeling dizzy 	<ul style="list-style-type: none"> • Mentally foggy • Can't concentrate • Can't remember • More slowed down 	<ul style="list-style-type: none"> • Irritable* • Sad • More emotional • Nervous 	<ul style="list-style-type: none"> • Drowsy* • Sleeping more than usual* • Sleeping less than usual* • Trouble falling asleep*

* Symptoms you may see in infants and young children.

Red flag signs: Call your doctor or go to the Emergency Room if your child suddenly has any of the following				
Physical			Thinking	
<ul style="list-style-type: none"> • Headache gets worse (even with pain medicine), lasts more than 1 day, or is so bad that your child cannot do usual activities (for example, can't play, can't go to school). • Seizures 	<ul style="list-style-type: none"> • Arms or legs are weak or numb. • Vomits for more than 2 days or happens more than 3 times in 2 days. • Pupils of the eyes are not equal in size. • Very dizzy or is getting dizzier. 	<ul style="list-style-type: none"> • Swelling of the scalp or face and it's getting worse. • The swollen area on the head is red or warm, or there is pus coming out. • Nose or ears have blood or clear fluid coming out. 	<ul style="list-style-type: none"> • Looks very drowsy; can't wake them. • Can't recognize people or places. • More and more confused. • Slurred speech. 	<ul style="list-style-type: none"> • Passes out. • Unusual behavior changes. • More and more irritable or can't calm them.



What are some ways to help my child heal?

In the hospital, create a calm environment by:

- Decreasing noise and stimulation levels.
- Speaking in low voices and turning off the TV.
- Closing the blinds.
- Limiting the number of visitors in the room at one time.

Ways to help your child rest and recover at home:

- Make sure they get enough sleep at night. This means no late nights. Keep the same bedtime on both weekdays and weekends.
- Let your child take daytime naps or rest breaks when they feel tired or fatigued. Limit napping to 1 to 2 hours a day.
- Encourage your child to drink lots of liquids and eat a balanced diet. Avoid soda and other high-sugar foods (like doughnuts, cookies, and candy).

When your doctor says it's okay to resume play:

- Help your child gradually return to their regular activities.
- As your child starts an activity, if symptoms get worse or return, limit their activities again. Rest a day or two, and then try to slowly increase their activities again.
- While your child recovers, it is normal for them to feel frustrated and sad because they may not feel right and can't be as active as normal.

You should take your child to the doctor to be examined again to help them recover.

How can I help my child prevent another injury?

It is very important to protect your child from further brain injury after they have an injury.

- **Don't let your child do activities that might cause another brain injury**, such as contact sports or bike riding until your child's doctor says it's okay. Ask the doctor to write this down for you. A normal recovery period is usually 2 to 6 weeks but may be 3 months or longer depending on your child's symptoms and the type or severity of the injury. Even if your child "is back to their usual self," their brain may still need healing. If they are still having symptoms, do not let them return to sports-related activities.
- **Make sure your child's physical education teacher, coach, or athletic trainer knows about the injury and any activity restrictions.** As a general rule, your child should not be cleared to return to sports participation if they can't yet manage a regular school workload. Return to play should be a gradual, step-by-step process. If your child is in an organized sport, they should start with light aerobic exercises then non-contact drills before contact practice and eventual return to full activity. Your doctor should provide specific details regarding these guidelines.
- **Once your child returns to their normal activities, always have them wear a helmet** every time they get on a bicycle, motorcycle, rollerblades, skates, skateboard, horse, scooter, ATV, snowboard, snowmobile, or downhill skis.
- **Always use seat belts and child safety seats in the car.** Make sure the safety seats are installed correctly and right for your child's age and size.
- **Do not allow your teenager to drive** until their doctor says it's okay.
- **For infants, always use safety straps** in high chairs, strollers, car seats, swings, etc.
- **Ask your child's doctor or nurse for safety suggestions** that are right for your child.

Could my child have problems that last longer?

Most children get completely better within a few weeks after mTBI. However, a few children (15 out of every 100) may have problems that last much longer. Some of these problems include the following:

- **Behavior or personality changes**
- **Careless or unpredictable actions** that increase the risk of your child getting hurt
- **Not being able to deal with regular daily activities** (for example, cannot go to school all day, sleeps early or late, gets upset with daily activities)
- **Changes in thinking**
- **Trouble paying attention or concentrating** (for example, trouble keeping focus on a conversation, changing from one topic to another, trouble staying on task or completing a task)
- **Memory difficulties** (for example, not able to follow through, not able to remember information, may get lost, forget names, miss instructions, or have trouble learning new information)
- **Less endurance** (for example, gets tired more quickly, takes longer to understand information, reacts less quickly, or is easily overwhelmed with even a small amount of information)



What about school?

When your child goes back to school, the school staff may not know about the injury. This can be a problem. Teachers may not understand that changes in the way your child acts and decreased performance may be a result of the brain injury. Your child may not know what is wrong and maybe frustrated because they are not able to do as well in school.

Here are some things to keep in mind:

- **The school can make adjustments for your child.** This may include changes in their daily schedule, trying different ways of teaching, or helpful aids such as a daily planner to help them stay organized.
- **Your child's school or school district office may be able to help.** Some school districts have a brain injury team available for your questions or concerns.
- **An Education Specialist at Primary Children's Hospital can assist you** with planning for a return to school and any special needs or accommodations as recommended by your doctor.

What kind of follow-up should we have with the doctor?

Take your child to their doctor for all recommended follow-up visits. They will assess your child's concentration, memory, judgment, balance, and other brain functions. You can share the information you get from the doctor with teachers and coaches.

The doctor may recommend that your child sees a rehabilitation doctor who is an expert in mTBI. The rehabilitation doctor will also help so your child can return to school and sports.

For more information

- **The Rehabilitation Department at Primary Children’s Hospital**
(Children 5 years old and younger)
81 North Mario Capecchi Drive
Salt Lake City, Utah 84113
Phone: 801-662-5888
- **The Rehabilitation Team at University Orthopedic Clinic**
(Children older than 5 years)
Wakara Way (east of Foothill Drive in Research Park)
Salt Lake City, UT 84108
Phone: 801-587-7109 or 888-587-7109
- **Brain Injury Alliance of Utah**
5280 So. Commerce Dr. Suite E-190
Murray, UT 84107
Phone: 801-716-4993
Fax: 801-716-4995
Español: 801-716-4996
Toll-Free: 1-800-281-8442
braininjuryutah.org
- **Brain Injury Association of America**
1608 Spring Hill Road, Suite 110
Vienna, VA 22182
Phone: 800-444-6443 or 703-761-0750
Fax: 703-761-0755
biausa.org
- **Utah Parent Center**
utahparentcenter.org
- **Medical Home Portal**
amchp.org

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