Let's Talk About...

Mild traumatic brain injury

A mild traumatic brain injury (MTBI or 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. A mild brain injury might also happen if the head hits an object, for example: a car or bicycle accident. Your child may pass out for a short time or feel dazed or confused. Most children do not have serious problems after a mild brain injury, but some children should see a rehabilitation doctor who specializes in MTBI. Your child may need to stay in the hospital so he can be watched for a while. The time it takes to recover from MTBI is different for each child.

Symptoms of a mild traumatic brain injury (MTBI)			
Physical	**Thinking**	**Emotional**	**Sleep**
• Headaches • Nausea (feel like he's going to throw up)* • Tired* • Problems with sight • Eyes are sensitive to light* • Sensitive to noise* • Numbness or tingling • Vomit (throw up)* • Feel dizzy	• Feel mentally foggy • Can't concentrate • Can't remember • Feel more slowed down	• Irritable* • Sad • More emotional • Nervous	• Drowsy* • Sleep more than usual* • Sleep less than usual* • Trouble falling asleep*
* Symptoms you may see in infants and young children.			

Red flag signs: Call you doctor or go to the Emergency Room if your child suddenly has any of the following				
Physical			**Thinking**	
• Headaches gets worse Headache gets worse even with pain medicine. Lasts more than one day, or is so bad that your child cannot do usual activity (for example can't play, can't go to school) • Arms or legs are weak or numb	• Vomits for more than two days or happens more than three times in two days • Pupils of the eyes are not equal in size • Seizures • Very dizzy or is getting more and more dizzy	• Swelling of the scalp or face and it's getting worse. • The swollen area on the head is red, warm or there is pus coming out. • Nose or ears have blood or clear fluid coming out.	• Looks very drowsy, can't wake him up • Can't recognize people or places • More and more confused • Slurred speech	• Unconsciousness (passed out) • Unusual behavior changes • More and more irritable or can't console him (talk him into being calm)

What are some ways to help my child heal?

- Help your child get lots of rest. Make sure he gets enough sleep at night; no late nights. Keep the same bedtime on both weekdays and weekends.
- Let your child take daytime naps or rest breaks when he feels 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 high sugar foods.
- As symptoms go away, your child may gradually return to his regular activities. If symptoms get worse or return, limit his activities again, and then slowly increase his activities.
- While your child recovers, it is normal for him to feel frustrated and sad, because he doesn't feel right and can't be as active as usual.
- You should take your child back to the doctor to be examined again, to help him recover.

How can I keep my child safe?

It is very important to protect your child from further brain injury after he has the first injury.

- Don't let your child do activities that might cause another brain injury, such as contact sports or bike riding, for as long as your health care provider says. The health care provider should write this down for you. A normal recover period is usually four to six weeks. Even if your child "is back to his usual self", his brain is still healing. If he is still having symptoms, do not let him return to sports-related activities. Make sure the physical education teacher, coach, and athletic trainer knows about your child's injury and your child's activity restrictions.
- After your child returns to his normal activities, always have him wear a helmet every time he rides or uses a bicycle, motorcycle, roller blades, skates, skate board, horse, scooter, ATV, snow board, snowmobile, or downhill skis.
- As always, 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.
- 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 (3 out of 20 children) may have problems that last much longer. Some of these problems include the following:

- Behavior or personality changes
- Your child has careless or unpredictable actions so he may get hurt.
- Can't 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 and 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 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 how well he does at school may be because of the brain injury.
- Your child may not know what is wrong. He may be frustrated because he isn't able to do as well at school.
- The school can make adjustments for your child. This may include changes in his daily schedule, trying different ways of teaching, or helpful aids such as a daily planner to help him stay organized.
- Your child's school or school district office also has information. Some school districts have a brain injury team available for your questions or concerns.

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

- Bring your child in to your health care provider for a follow-up visits. Your child's health care provider will find out how well your child is doing. They will assess your child's concentration, memory, judgment, balance, and other brain functions.
- You can share the information you get from your medical provider with teachers and coaches.
- Some children have long-lasting problems even when symptoms seem to be gone. Make sure you bring your child to their health care provider for a follow up visit. They may tell you to bring your child to see 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**
  Primary Children's Medical Center
  100 North Mario Cappechi Drive
  Salt Lake City, Utah 84113
  801.662.4949

- **Rehabilitation Doctor at**
  University Orthopedic Clinic
  590 Wakara Way
  (East of Foothill Drive in Research Park)
  Salt Lake City, UT 84108
  801.587.7109
  888.587.7109

- **Brain Injury Association of Utah, Inc.**
  1800 S. West Temple #203
  Salt Lake City, Utah 84115
  801. 484.2240
  www.biau.org

- **Brain Injury Association of America**
  8201 Greenboro Drive, Suite 611
  McLean, Virginia 22120
  703.761.0750

- **Family Helpline**
  800.444.6443
  www.biausa.org

- **Utah Parents Center**
  www.utahparentcenter.org

- **Medical Home Portal**
  www.medicalhomeportal.org

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Pediatric Education Services
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