



Patient education: Concussion in children and teens (The Basics)

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What is a concussion?

A "concussion" is the medical term for a mild brain injury. It can cause confusion, memory loss, and headache.

A concussion can happen as a result of a fall or other type of accident. But it can also happen in sports. Among older children and teens who play sports, concussion is one of the most common injuries:

- Among boys, the sports most often linked to concussions are American football, ice hockey, and lacrosse.
- Among girls, the sports most often linked to concussions are soccer, lacrosse, and field hockey.

If a child gets a concussion, it's very important that they **stop** playing sports until the doctor says that it's safe to start again. Sometimes, children might not be honest about their symptoms because they don't want to miss out on activities. So it's important to watch them closely for any problems that could be related to the concussion, such as those listed below.

What are the symptoms of a concussion?

People used to think that "passing out" or "blacking out" was an important feature of a concussion. But it is actually common to have a concussion without blacking out.

Symptoms that can happen immediately, or in the first minutes to hours after a concussion, include:

- Memory loss – Children sometimes forget what caused their injury, as well as what happened right before and after the injury.
- Confusion
- Headache
- Dizziness or trouble with balance
- Nausea or vomiting
- Feeling sleepy
- Acting cranky, irritable, or strange

Some children recover quickly from a concussion and have no further symptoms. But others have symptoms that persist or happen hours to days after a concussion. These might include:

- Trouble walking or talking
- Memory problems or problems paying attention
- Trouble sleeping
- Mood or behavior changes
- Vision changes
- Being bothered by things like noise or light

Will my child need tests?

It depends on their injury and symptoms. To check if your child has a concussion, the doctor will ask about their symptoms and behavior, and do an exam. The doctor will also ask your child questions to check that they are thinking clearly.

Children with a concussion do not need an imaging test. But if the doctor or nurse suspects a serious head injury, they might order a special kind of X-ray called a CT scan. CT scans create detailed pictures of the brain and skull. If available, a test called an MRI can be done instead of a CT scan. An MRI takes longer and, for young children, might require sedation. This means that they get medicines to make them very sleepy.

How is a concussion treated?

Your child should see a doctor who has experience treating concussions. This might be your child's regular doctor, or they might refer you to a different doctor.

Treatment of a concussion involves:

- Preventing further injury – Most concussions get better on their own. While your child is healing, it's important that they don't do too much or play any organized sports. Having a second injury while the brain is healing from a concussion can seriously damage the brain. Even if your child seems fine, they should not go back to school or do organized sports until the doctor says that it's OK.
- Physical rest – Your child should rest for 24 to 48 hours. After that, they can slowly start to get back to regular activities. This includes light physical activity, as long as it doesn't make symptoms worse. Increasing activity gradually, as long as it doesn't cause symptoms, can actually help children get better faster than strict rest. Your child should continue to avoid contact sports, or other sports that could cause a head injury, until they have completely recovered.
- Mental rest – Doctors also call this "cognitive rest." It involves avoiding things that make symptoms worse. Examples might include reading, playing video games, or using a smartphone, tablet, or computer. The child can gradually start doing these things again as they feel ready. But they should take a break again if their symptoms come back or get worse.

Most children can go back to school after 1 to 2 days of rest. Your child's doctor will help you decide when your child can return to school. In general, this is when they are able to stay focused and concentrate for at least 30 to 45 minutes at a time. Missing more than 5 days of school is usually not recommended.

- Treating symptoms – In addition to rest, there are ways to help relieve your child's symptoms. For example:
 - Headache – If your child has a headache, their doctor might suggest taking an over-the-counter pain reliever. These include [acetaminophen](#) (sample brand name: Tylenol) and NSAIDs such as [ibuprofen](#) (sample brand names: Advil, Motrin) and [naproxen](#) (sample brand name: Aleve). These medicines should only be used for a few days. Never give [aspirin](#) to a child younger than 18 years old.
 - Nausea – Your child's doctor can prescribe medicine to help with nausea, too. This medicine should only be used for 1 to 2 days after injury. In some cases, it can make other symptoms worse.

- Sleep problems – After a concussion, some children have trouble falling or staying asleep. This can lead to feeling tired during the day. The best way to treat this is to follow good "sleep hygiene." This involves going to bed and getting up at the same time each day. It also means removing things from the bedroom that make it harder to fall asleep, such as light, noise, and screens. You can help your child by creating a relaxing bedtime routine to follow each night.

If your child still has symptoms after 3 or 4 weeks, they might need additional treatment. Along with a doctor who has experience treating concussions, other specialists might see your child, too. These include a physical therapist (exercise expert) and a person who is an expert on the brain and behavior.

When can my child return to sports and other activities?

Ask your child's doctor when they can play sports or do usual activities again. It will depend on your child's injury and symptoms, as well as the type of sport that your child plays. Most children are back to normal within 4 weeks.

Do not rush it. Your child's brain needs to heal completely after a concussion. If your child gets another concussion before their brain has healed, it could lead to serious brain problems.

When your child does return to their usual activities, they might need to slowly ease into them. That might mean going for a half-day at school, or doing less schoolwork at first. The same goes for going back to sports. They might need to start with just light jogging and slowly add in other activities.

When should I call for help?

Call for an ambulance (in the US and Canada, **call 9-1-1**) if your child:

- Cannot be fully woken up
- Is acting confused or disoriented
- Has a sudden and persistent change in their behavior
- Cannot walk normally
- Has trouble speaking or slurred speech
- Has severe weakness or cannot move an arm, leg, or 1 side of their face
- Has a seizure, or jerking of their arms or legs they cannot control

Call the doctor or nurse for advice if the child:

- Has concussion symptoms that are not improving or are getting worse, even with physical and mental rest
- Has blood or clear liquid draining from their ears or nose
- Seems weak or has numbness in an arm, leg, or other body part
- Has a stiff neck
- Has a headache that is severe, gets worse, feels different, or does not get better with over-the-counter medicines

If **any** of the above symptoms seem severe, or if you are concerned about the child but cannot reach the doctor or nurse, seek emergency help. These things don't always mean that there is a serious problem, but seeing a doctor or nurse is the only way to know for sure.

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