

A **concussion** is an injury to the brain caused by a blow to the head. A concussion may cause you to become temporarily confused or disoriented, have memory loss (amnesia), or become unconscious. Concussions are the most common head injuries in sports.

A concussion occurs when a blow to the head causes shaking, jarring, stretching, swelling, or tearing of brain tissue and delicate nerve fibers. The sports in which concussions most commonly occur are football, gymnastics, ice hockey, and wrestling. However, concussions can occur in any sport or activity where you may get hit in the head.

If you have had a concussion you may have any of the following symptoms:

- headache
- confusion
- memory loss (amnesia)
- loss of consciousness
- sleepiness
- nausea or vomiting
- trouble thinking
- dizziness
- weakness
- seizures
- loss of balance
- blurred vision

You may have these symptoms for several days, weeks, or longer after the injury. This is called post-concussive syndrome.

If your neck hurts after a head injury, it is best to try not to move more than is necessary until it is checked by a healthcare provider. Anyone with a possibly serious neck injury should not move at all and an ambulance should be called.

A concussion is diagnosed based on historical recounting of events and by physical examination. If you can't remember what happened, your healthcare provider may need to get this information from other people who saw the accident. Your healthcare provider will do a neurologic examination, testing your strength, sensation, balance, reflexes, and memory. They will also look at your eyes with a flashlight to see if your pupils are the same size. You may be tested again several times during the next hour to detect any worsening of brain function, which might occur if you have any bleeding or swelling in the brain.

Your provider may do a CT scan or an MRI of your head to be sure there is no damage to your brain. Depending on how your head injury occurred, you may have neck X-rays to check your spine.

Concussions have been graded as 1, 2, or 3, depending upon the severity of the confusion, amnesia, or loss of consciousness. Some providers may use the terms simple or complex to describe the severity of a concussion.

The treatment for a concussion is rest. This means you may need to miss school, work, or other activities. Exercising too soon will make your symptoms last longer and may cause more problems. Headache may be treated with a mild pain reliever, such as acetaminophen. Nausea may be treated with a prescription medicine. Clear liquids or bland foods may be helpful.

If you have had a concussion, you need to be watched by a friend or relative for 8 to 12 hours. You should be awakened and checked every 2 to 4 hours while sleeping. Symptoms to report to your healthcare provider include:

- confusion
- seizures
- unequal pupil sizes
- restlessness or irritability
- trouble using your legs or arms
- worsening vomiting
- headache that will not go away after taking acetaminophen (Tylenol)
- garbled speech
- bleeding from the ears or nose
- decreasing alertness
- unusual sleepiness or hard to wake up
- unusual behavior

If you are stable and recovering during the next 24 hours, you should rest for another day or two. As your symptoms go away, you can begin to go back to your usual daily routine. However, you should stay away from any activities that would risk reinjury. A second concussion before the first one has healed could be very serious. Your healthcare provider will tell you when it is safe to return to sports and other activities.

It is very important to understand that receiving a second blow to the head before the first injury is fully healed can be fatal, even if the second injury seems minor.

A concussion is caused by a blow to the head. It is important in contact sports that you wear proper protective head gear that fits well. In sports such as football, it is important to use proper blocking and tackling techniques and not to use your head for initial contact. In sports such as bicycling, white-water kayaking, and rollerblading, wear a helmet. Wearing a mouthpiece may also help prevent concussions.

Don't hide it! Tell your athletic trainer and coach. Never ignore a blow to the head. Also, tell your athletic trainer and coach if one of your teammates might have a concussion.