

Head Injuries/Concussion

What Is a Concussion?

If a blow to the head is serious enough to injure the brain, it is called a concussion. After a concussion, the brain doesn't work right for a while. The person can be "knocked out" (unconscious) or have memory loss (amnesia) and trouble with thinking.

Is a Concussion Serious?

Any brain injury can be dangerous. When the brain is rapidly pushed against the inside wall of the skull, it can be bruised, and can swell and bleed. The damage usually heals in time, but occasionally has long-lasting or permanent effects and can even result in death. A concussion can be serious even without a cut or swelling or losing consciousness.

What are the Symptoms?

Concussions are grouped into 5 grades, according to symptoms. Grade 0 shows only headache and difficulty concentrating. Grade 1 adds a dazed feeling lasting less than a minute. In Grade 2 concussion the cloudy senses last longer, and the patient may have dizziness, amnesia, confusion, ringing in the ears, and/or irritability. Loss of consciousness characterizes Grade 3 (for less than a minute), and Grade 4 (for longer than a minute.)

Call for emergency help immediately whenever anyone suffers a head injury and they are unconscious, drowsy, confused, vomiting, or unable to respond appropriately to questions.

How Is It Diagnosed?

The doctor can usually make the diagnosis based on the above symptoms, the reaction of the pupils to light, the pulse, blood pressure, respiration and speech patterns, coordination, response to questioning and other stimuli. In more serious cases, a series of images of the head will be taken (x-rays, CT scan or MRI.) Brain wave studies (EEG) may also be done.

Treatment

For most concussions, rest and inactivity are the treatment. Often acetaminophen (Tylenol) is recommended for headache pain. Aspirin should be avoided as it may contribute to internal bleeding. Ice packs can be applied to the head. The patient should drink clear liquids at first, gradually adding light foods after several hours or the next day.

A friend or family member should observe the patient for the first 24 hours to assure that the

symptoms aren't getting worse. The observer should waken the patient every 2-3 hours to see that he/she awakens easily, and can answer simple questions, such as their name, birthdate, location, the current date, etc.

Call the doctor immediately if the patient has:

- ◆ vomiting more than once or twice
- ◆ severe headache not relieved by acetaminophen
- ◆ unequal pupil size
- ◆ convulsions/seizures
- ◆ loss of function of legs or arms
- ◆ slurred or garbled speech
- ◆ fever above 100.5°
- ◆ inability to arouse from sleep
- ◆ unusual behavior, restlessness, irritability, personality change, or confusion
- ◆ drainage of blood or clear fluid from nose or ears

How Long Does Recovery Take?

In general, this depends on the severity of the injury. Those with a very mild concussion may be able to return to normal activity in 20-30 minutes. In cases with memory loss or other Grade 2 symptoms, usually limited activities can be resumed in 24-48 hours. Serious (Grade 3-4) concussions require refraining from sports for at least 2-4 weeks, with gradual return to full activity. The after-effects of concussions are cumulative—damage symptoms may be more severe and last longer with each subsequent injury; therefore more time should be allowed for recovery.

Before resuming normal activities, the patient must not have any headaches, dizziness, trouble concentrating, confusion or memory loss, either during rest or with activity.

Prevention

- ◆ Always wear a seatbelt while in a car and use approved safety restraints for infants and children.
- ◆ Always wear a helmet while playing football and other contact sports, skateboarding, biking, snowboarding, skating, etc.
- ◆ Concussion victims may be advised against participating in particularly risky activities, such as football, which results in 250,000 concussions each year.

For More Information

<http://www.intelihealth.com/IH/ih/IH/WSIHW000/331/9740.html>

