



## Concussion Care

A CONCUSSION is typically defined as a head injury with a temporary loss of brain function. Concussion can cause a variety of physical, cognitive, and emotional symptoms. These symptoms may last a few seconds (usually described by athletes as "I got my bell rung" or "I got dinged"), or it may last days, weeks or months. Any athlete with a suspected concussion should be REMOVED FROM PLAY.

Treatment of a concussion involves monitoring and rest. Symptoms usually go away entirely within three weeks, though they may persist, or complications may occur. Repeated concussions can cause cumulative brain damage such as dementia or severe complications such as "second-impact syndrome" in which bleeding/swelling occurs undetected from the initial concussion. A second concussion occurring before this swelling has subsided can often be fatal. Subdural hematoma, or bleeding in the tissue surrounding the brain, is a severe complication of a concussion. This is a very dangerous situation, which can also be fatal if not identified.

ANY CONCUSSION SIGNS/SYMPTOMS WORSENING OVER TIME SHOULD BE CONSIDERED DANGEROUS AND A DOCTOR OR THE EMERGENCY DEPARTMENT CONSULTED.

Any time a CONCUSSION occurs, it is best to have the family doctor examine the athlete. If the doctor says the athlete has had, or has a CONCUSSION, but that it does not require admittance to hospital for observation, then the athlete should follow the following guidelines.

The following should be done for the first 24 hours after a CONCUSSION:

- (1) No alcoholic beverages. Alcohol will dull the senses and alter behavior potentially masking a change in signs / symptoms that may indicate that bleeding is still occurring.

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(2) No pain relief or anti-inflammatory medications during the first 24 hours. Pain is the way your body tells you that something is wrong. A headache is common following a CONCUSSION. The change of headache severity from mild to severe tells you that you should see your doctor immediately. If the headache has remained about the same for 24 hours, then the use of analgesics or pain medication is allowed. Anti-inflammatory medications can impair blood clotting and should not be used as this may allow an increase in bleeding around the brain – very dangerous.

(3) No reading or watching TV for 1 to 4 days, depending upon the severity of the CONCUSSION. Trying to read or trying to watch TV causes the eyes to continuously change pictures, which means the brain has to work extra hard. This in turn increases a person's headache when they have had a CONCUSSION. If reading or watching TV causes a headache, the athlete must wait 1 or 2 more days before trying it again.

(4) Resting in a quiet, darkened room with little stimulation is the best therapy to allow the brain to recover. Mild CONCUSSIONS only take a few hours to 2 days to recover. More severe CONCUSSIONS take longer.

(5) During the first 24 hours following a CONCUSSION, you should be watched closely for signs/symptoms worsening. A person should wake the athlete up every 2 hours and check the following:

(A) Does the athlete wake up normally. Parents are the best to wake up a son or daughter because they know how they are at the beginning of the day. If the athlete fails to wake up at all, the physician should be contacted immediately.

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(B) The pupils of the eyes should be checked. The pupil is the black portion of the eye. With light, it should go smaller, and in a dark room, it should get larger. Failure of the pupil to change in size when light is introduced after having been in the dark, or when both eyes have different sized pupils which isn't normally there, indicates a doctor should be consulted immediately.

(C) Check headache severity. A suggestion is to use a pain chart with "0" meaning no pain, to "10" meaning severe pain for the headache. It doesn't really matter what number the athlete starts out at. It is the change over time that is of more concern. Therefore, a person starting with a headache at a number 5 and with time it keeps increasing to 6, 7, 8, 9 shows more pressure is building in the head and that a doctor should be consulted immediately. If the headache only changes one level (5 to 6 or 6 to 7) and that is all, then the person can still just be watched.

(D) Vomiting may occur once during the first 24 hours but continued vomiting tells you that you need to see a physician immediately.

**Danger Signs** which, if they occur, mean that the athlete should see the physician immediately.

(1) A change in consciousness. If the athlete becomes unconscious or unresponsive in any way, the physician should be notified. Even for a 1 to 2 second fainting spell during the time of a CONCUSSION. A normal fainting spell may be due to many reasons and it does not require contacting your physician immediately - only with a CONCUSSION. The key is when the athlete has had a CONCUSSION – then a fainting spell can mean much more.

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(2) A change in behavior. If the athlete's behavior changes over the course of 3 weeks, this may indicate a slow bleed in the brain; therefore, the physician should be notified. For example – the quiet, polite person becomes a noisy, arguing and defiant person.

(3) If the athlete develops numbness or loss of use of an arm or leg or both, then the physician should be immediately notified.

(4) If the athlete develops neck pain which is not in the muscles from the injury which caused the CONCUSSION, but is in the neck central area, such that the person doesn't want to put his chin to his chest or move his knees up to his chest – then the physician should be notified.

(5) Unresponsive eye pupils as described above.

(6) Vomiting as described above.

REMEMBER: ANY CONCUSSION SIGNS/SYMPTOMS WORSENING OVER TIME SHOULD BE CONSIDERED DANGEROUS AND A DOCTOR OR THE EMERGENCY DEPARTMENT CONSULTED.

Here is a link to the SCAT2 Concussion assessment tool you can print and keep on hand:

<http://www.athletictherapy.org/en/pdf/SCAT2.pdf>



## Concussion Care

### Return to Activity

(three levels with three day stages each)

The soonest they can return to activity is 11 days post concussion.

**Level 1:** No signs/symptoms with complete rest for three consecutive days

**Level 2:** No signs/symptoms with light activity (running, skating, biking) for three consecutive days

**Level 3:** No signs/symptoms with full practice for three consecutive days

\* If signs/symptoms return during a level, the athlete must stay at that level until successful three consecutive days

\* If after 11 days, the athlete returns to sport and signs/symptoms return without a hit or incident, then pull from sport and return to level 3 but it still considered part of first concussion. If hit again, then a second concussion has occurred, and the athlete is out for the rest of the season. Three concussions often will lead to the end of a sporting career.