

PARENTS' GUIDE TO CONCUSSION

What are the signs and symptoms of a concussion?

SIGNS OBSERVED BY PARENTS, FRIENDS, TEACHERS, OR COACHES	SYMPTOMS REPORTED BY ATHLETE
Appears dazed or stunned	Headache
Is confused about what to do	Nausea
Forgets plays	Balance problems or dizziness
Is unsure of game, score, or opponent	Double or fuzzy vision
Moves clumsily	Sensitivity to light or noise
Answers questions slowly	Feeling sluggish
Loses consciousness	Feeling foggy or groggy
Shows behavior or personality changes	Concentration or memory problems
Cannot recall events prior to hit	Confusion
Cannot recall events after hit	

What should I do if I think my child has had a concussion?

If an athlete is suspected of having a concussion, he or she must be immediately removed from play, be it a game or practice. Continuing to participate in physical activity after a concussion can lead to worsening concussion symptoms, increased risk for further injury, and even death. Parents and coaches are not expected to be able to “diagnose” a concussion as that is the job of a medical professional. However, you must be aware of the signs and symptoms of a concussion and if you are suspicious, then your child must stop playing.

WHEN IN DOUBT, SIT THEM OUT!

All athletes who sustain a concussion need to be evaluated by a healthcare professional who is familiar with sports concussions. You should call your child’s physician and explain what has happened and follow your physician’s instructions. If your child is vomiting, has a severe headache, is having difficulty staying awake or answering simple questions, he/she should immediately be taken to the emergency department.

When can an athlete return to play following a concussion?

After suffering a concussion, **no athlete should return to play or practice on that same day.** Previously, athletes were allowed to return to play if their symptoms resolved within 15 minutes of the injury. Studies have shown us that the young brain does not recover quickly enough for an athlete to return to activity in such a short time.

Concerns over athletes returning to play too quickly have led state lawmakers in both Oregon and Washington to pass laws stating that **no player shall return to play following a concussion on that same day and the athlete must be cleared by an appropriate healthcare professional before he/she is allowed to return to play in games or practices.** The laws also mandate that coaches receive education on recognizing the signs and symptoms of concussion.

Once an athlete no longer has symptoms of a concussion and is cleared to return to play by a healthcare professional knowledgeable in the care of sports concussions, he/she should proceed with activity in a step-wise fashion to allow the brain to readjust to exertion. On average, the athlete will complete a new step each day. The return to play schedule should proceed as below following medical clearance.

Step 1: Light exercise including walking or riding an exercise bike. No weight lifting.

Step 2: Running in the gym or on the field. No helmet or other equipment.

Step 3: Non-contact training drills in full equipment. Weight training can begin.

Step 4: Full contact practice or training.

Step 5: Game play.

If symptoms occur at any step, the athlete should cease activity and be re-evaluated by a healthcare provider.

How can a concussion affect school work?

Following a concussion, many athletes will have difficulty in school. These problems may last from days to months and often involve difficulties with short and long term memory, concentration, and organization.

In many cases, it is best to lessen the athlete's class load early on after the injury. This may include staying home from school for a few days, followed by a lightened schedule for a few days, or perhaps a longer period of time, if needed. Decreasing the stress on the brain early on after a concussion may lessen symptoms and shorten the recovery time.

What can I do?

- Both you and your child should learn to recognize the "signs and symptoms" of concussion as listed above.
- Teach your child to tell the coaching staff if he/she experiences such symptoms.
- Emphasize to administrators, coaches, teachers, and other parents your concerns and expectations about concussion and safe play.
- Teach your child to tell the coaching staff if he/she suspects that a teammate has a concussion.
- Monitor sports equipment for safety, fit, and maintenance
- Ask teachers to monitor any decrease in grades or changes in behavior that could indicate concussion.
- Report concussions that occurred during the school year to appropriate school staff. This will help in monitoring injured athletes as they move to the next season's sports.

OTHER FREQUENTLY ASKED QUESTIONS

Why is it so important that an athlete not return to play until he/she has completely recovered from a concussion?

Athletes who have not fully recovered from an initial concussion are significantly vulnerable for recurrent, cumulative, and even catastrophic consequences of a second concussive injury. Such difficulties are prevented if the athlete is allowed time to recover from the concussion and return to play decisions are carefully made. No athlete should return to sport or other at-risk participation when symptoms of concussion are present and recovery is ongoing.

Is a CT scan or MRI needed to diagnose a concussion?

Diagnostic testing which includes CT and MRI scans is rarely needed following a concussion. While these are helpful in identifying life-threatening brain injuries (e.g., skull fracture, bleeding, swelling), they are not normally utilized, even for athletes who have sustained severe concussions. A concussion is diagnosed based upon the athlete's story of the injury and the healthcare provider's physical examination.

What is the best treatment to help my child recover more quickly from a concussion?

The best treatment for a concussion is rest. There are no medications that can speed the recovery from a concussion. Exposure to loud noises, bright lights, computers, video games, television, and phones (including text messaging) all may worsen the symptoms of a concussion. You should allow your child to rest as much as possible in the days following a concussion. As the symptoms lessen, you can allow increased use of computers, phone, video games, etc., but the access must be lessened if symptoms worsen.

How long do the symptoms of a concussion usually last?

The symptoms of a concussion will usually go away within one week of the initial injury. You should anticipate that your child will likely be out of sports for about two weeks following a concussion. However, in some cases, symptoms may last for several weeks or even months. Symptoms such as headache, memory problems, poor concentration, and mood changes can interfere with school work and social interactions. The potential for such long-term symptoms indicates the need for careful management of all concussions.

How many concussions can an athlete have before he/she should stop playing sports?

There is no "magic number" of concussions that determines when an athlete should give up playing contact or collision sports. The circumstances surrounding each individual injury such as how the injury happened and length of symptoms following the concussion are very important and must be considered when assessing an athlete's risk for further and potentially more serious concussions. The decision to "retire" from sports is a decision best reached following a complete evaluation by your child's primary care provider and consultation with a physician or neuropsychologist who specializes in treating sports concussion.

I have read recently that concussions may cause long-term brain damage in professional football players. Is this a risk for high school athletes who have had a concussion?

The issue of “chronic encephalopathy” in several former NFL players has received a great deal of media attention lately. Very little is known about what may be causing dramatic abnormalities in the brains of these unfortunate, retired football players. At this time, we have very little knowledge of the long-term effects of concussions which happen during high school athletics.

In the cases of the retired NFL players, it appears that most had long careers in the NFL after playing in high school and college. In most cases, they played football for over 20 years and suffered multiple concussions in addition to hundreds of other blows to their heads. Alcohol and steroid use may also be contributing factors in some cases. Obviously, the average high school athlete does not come close to suffering the total number or shear force of head trauma seen by professional football players. However, the fact that we know very little about the long-term effects of concussions in young athletes is further reason to very carefully manage each concussion.

Some of this information has been adapted from the CDC’s “Heads Up: Concussion in High School Sports” materials by the NFHS’s Sports Medicine Advisory Committee.
Please go to www.cdc.gov/ncipc/tbi/coaches_Tool_Kit.htm for more information.

If you have any further questions regarding concussions in high school athletes, please contact Fred Brennan, Jr., D.O. at Seacoast Orthopedics & Sports Medicine, 7 Marsh Brook Drive, Somersworth, NH (603) 742-2007 or (866) 577-7232; email: sosmed@sosmed.org; www.sosmed.org;

HOME CARE INSTRUCTIONS FOR ATHLETIC HEAD INJURY

Concussion Care Instructions

Your son/daughter has been diagnosed with a concussion (also known as a mild traumatic brain injury). These instructions are designed to help speed recovery. Your careful attention to these instructions can also prevent further injury. Before your son/daughter is allowed to return to activity, he/she must be evaluated and cleared by a physician. Rehab 3 Center for Athletes strongly recommends Dr Fred Brennan at Seacoast Orthopedics & Sports Medicine. Dr Brennan is an expert in concussion management and works closely with the Rehab 3 athletic training staff to ensure the highest level of care for your child. For an appointment with Dr Brennan, contact Seacoast Orthopedics & Sports Medicine at (603) 742-2007 or (866) 577-7232.

Sometimes the signs and symptoms from a concussion do not become apparent until hours after the initial trauma. The following list includes some, but not all, possible signs and symptoms of a concussion.

Sensitivity to light	Headache	Drowsiness	Balance problems/dizziness
Trouble sleeping	Nausea	Blurred vision	Sleeping more than usual
Sensitivity to noise	Vomiting	Irritability	Difficulty concentrating
Numbness/tingling	Fatigue	Sadness	Difficulty remembering
Feeling like in a “fog”			

If any of the following symptoms occur, bring your child to the nearest hospital emergency room.

- Any significant increase in intensity in the signs and symptoms listed above
- Severe headache that is not alleviated by Tylenol or cool packs applied to the head
- Repetitive or persistent vomiting
- Difficulty seeing, any peculiar eye movements, or one pupil larger than the other
- Restlessness, irritability, or drastic changes in emotional control
- Convulsions/seizures
- Difficulty walking or using arms
- Dizziness/unsteady gait or confusion that gets progressively worse
- Difficulty being awakened
- Difficulty speaking or slurring of speech
- Bleeding or drainage of fluid from the nose or ears
- Any new or severe symptoms

Instructions:

- REST is the key—get lots of rest. Physical rest and “brain” rest. Be sure to get enough sleep at night and take naps, if possible.
- Limit physical activity as well as activities that require a lot of thinking or concentration (homework, video games, texting). These activities can make symptoms worse.
- You should not physically exert yourself (e.g., sports, lifting, running, biking) if you still have any symptoms of a concussion. Simply walking at a normal pace is okay.
- Drink lots of fluids and eat healthy foods. Do not drink alcohol.
- You may take two Tylenol (acetaminophen) every 6 hours as needed for headache. Nothing stronger unless authorized by a medical provider
- Report any new or changing signs and symptoms to your athletic trainer.

Return to Play Guidelines:

When your son/daughter is symptom-free, he/she will be progressed through the following steps by the athletic trainer to ensure a safe return to sport.

- Step 1. Light exercise including walking or riding an exercise bike. No weight lifting
- Step 2. Running in the gym or on the field. No helmet or other equipment.
- Step 3. Non-contact training drills in full equipment. Weight training can begin
- Step 4. Full contact practice or training
- Step 5. Game play.

If symptoms occur at any step, the athlete should cease activity and be re-evaluated by his/her healthcare provider.