

Concussions: Facts and Fallacies



**Sports Medicine
Physicians and
Therapy Services**

What You Need to Know

A mild traumatic brain injury (i.e. concussion) is a disturbance in brain function caused by a direct or indirect force to the head.

At the time of injury it is rarely necessary to take a trip to the emergency room. There are several instances where it would be advised.

1. A headache that gets worse.
2. Repeated vomiting.
3. Inability to recognize people or places.
4. Weakness or numbness in the face, arm, and/or leg.
5. Change in breathing rate, difficulty breathing or bluish tint to skin.
6. Unequal pupil size
7. A loss of consciousness for any amount of time.
8. Difficulty speaking, slurred, and/or incoherent speech.
9. An increase or worsening of any of the symptoms marked in the light tan box.
10. Increased drowsiness or cannot be awakened (woken up).
11. Unusual behavior, confusion or irritability.
12. Decreased balance.
13. Unusual activity or any symptom or behavior that makes you feel uncomfortable.

You can't see a concussion. Signs and symptoms of concussion can show up right after the injury or may not appear or be noticed until days or weeks after the injury.

Concussion symptoms differ with each person and with each injury, and they may not be noticeable for hours or days.

Common symptoms include:

- Headache
- Pressure in head
- Neck pain
- Nausea or vomiting
- Dizziness
- Blurred vision
- Balance problems
- Sensitivity to light or noise
- Feeling slowed down
- Feeling like "In a Fog"
- Don't feel right
- Difficulty concentrating or remembering
- Fatigue, low energy or drowsiness
- Confusion
- Trouble falling or staying asleep
- More emotional or irritable

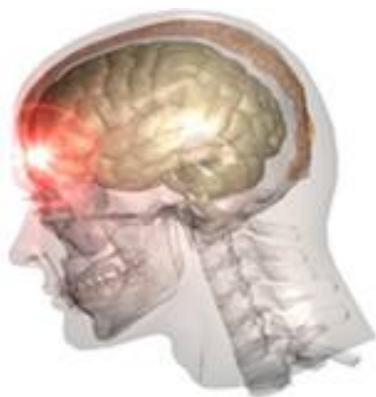
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Concussion Myths

1. **In order for it to be a concussion, you have to have impact to your head.** - A concussion can be caused by a whiplash motion that does not involve any head contact.
2. **In order for it to be a concussion you have to lose consciousness (LOC).**— In a 2010 study of concussions among high school athletes, more than 95% do not result in LOC
3. **Only athletes in aggressive contact sports like football, hockey and lacrosse suffer concussions.**— While football has the highest number of concussions, and concussions are common in hockey, lacrosse and wrestling, concussions also occur frequently in boys' and girls' soccer and basketball, and cheerleading.
4. **Helmets, headbands, and mouth guards can prevent concussions.**—There isn't a single product on the market that can prevent concussions because nothing can stop your brain from moving inside your skull, even if it protects your skull from injury.
5. **Getting 'dinged', 'having your bell rung' and seeing stars aren't really signs of a concussion.**—This is one of the most dangerous myths because it seems to discredit the brain when it is telling the athlete something is wrong.
6. **The signs and symptoms of a concussion are immediately evident.**—While some signs and symptoms may appear immediately it may take hours of days for others to appear, especially in athletes under 18 years of age.
7. **"It's only a minor concussion".**—There is nothing 'minor' about an injury to the brain.
8. **All physicians are educated about concussions and know how to recognize and treat them appropriately.**—The best Sports Medicine physicians have been specifically trained in concussion management, but not all pediatricians, ER or Urgent Care physicians are as knowledgeable.
9. **The athlete can resume playing whenever they want.**—In most states, Missouri included, there are laws that require a specific Return-to-Play in order to ensure the safety of the athlete.
10. **There are no long-term effects.**—We do not know the answer to that at this point but some studies are showing that it can have drastic health effects.

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Mercy Sports Medicine provides comprehensive healthcare to the active population.

Our Certified Athletic Trainers focus on restoring functional movement to every individual. From daily interactions in the local high schools to post-surgical care and performance enhancement, we are here to help you achieve your goals.

Missouri's Concussion Legislation

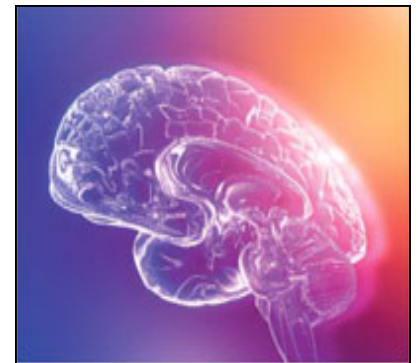
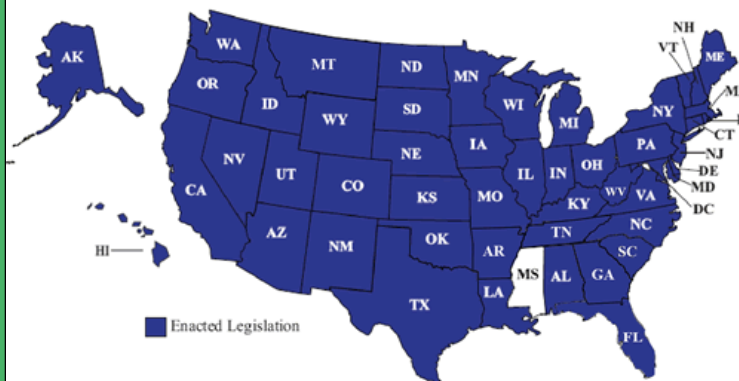
On July 13, 2011, Missouri governor Jay Nixon signed into law H.B. 300, 334, and 387, titled the "Interscholastic Youth Sports Brain Injury Prevention Act."

Missouri law contains three key components, requiring:

1. Immediate removal if concussion suspected: A youth athlete suspected of having sustained a concussion or brain injury in a practice or game must be immediately removed from competition and not allowed to return for at least 24 hours;
2. No return to play without written clearance. Once removed from play, a youth athlete may not return to competition until he has been (a) evaluated by a health care provider trained in the evaluation and management of concussion; and (b) receives written clearance to return from that health care provider.
3. Continuing concussion education. School district must distribute a concussion and brain injury information sheet to each youth athlete participating in its athletic program on a yearly basis, which the athlete's parent or guardian must sign and return to the school district in order for the athlete to be able to participate in interscholastic sports.

Following Washington's 1st Concussion law in 2009, all states excluding Mississippi, have passed legislation to help protect our youth athletes and educate the coaches and parents.

*Mississippi introduced a law in January of 2014 which has passed by the House and Senate and is awaiting approval from the Governor.



Managing Return-to-Learn and Return-to-Play

Treatment vs. Management

The best known **concussion treatment** is rest. However, it can take from one to three weeks to fully recover from a concussion, and it is very important that the concussion is managed throughout the entire recovery process.

Concussion management involves creating a support system around the athlete. Adults at home, at school and on the field, need to change and modify the environment around the student athlete to maximize their concussion recovery.

- Limit mental activities such as computer usage, text messaging, TV, video games, etc
- Avoid activity that causes or worsens signs and symptoms until cleared by a doctor
- Rest is encouraged
- Don't drive until a doctor says it's ok

The cornerstone of concussion management is physical and cognitive rest until symptoms resolve and then a graduated program of exertion prior to medical clearance and return to play. The recovery and outcome of this injury may be modified by a number of factors that may require more sophisticated management strategies.

No athlete should be returned to athletics until they are returned to school without accommodations. In the days or weeks following a concussion the student may require modifications of homework, deadline extensions, rest-breaks throughout the day, changes in classes that would require the use of computers or videos, etc.

An active return-to-play progression is started when the athlete is symptom-free for at least 24 hours. There are several factors (age, previous concussion history, etc) that could prolong the initial requirement of remaining symptom-free up to 7 days.

Step 1: Light exercise. At this point the athlete may begin 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. Must be cleared by physician before returning to full-contact practice.

Step 5: Play in competition.

The athlete should spend 1 to 2 days at each step before advancing to the next. If post-concussion symptoms occur at any step, the athlete must stop the activity and the treating physician must be contacted. Depending upon the specific type and severity of the symptoms, the athlete may be told to rest for 24 hours and then resume activity at a level one step below where he or she was at when the symptoms occurred.