

FLIP & TWIST: STAFF GUIDE TO CONCUSSION

What is a Concussion?

A concussion is a traumatic injury to the brain that alters mental status or changes the way the brain normally works. It is caused by a blow to the head or body that forces the brain to move rapidly inside the skull. Many people, including parents and coaches, assume if the player has not been knocked unconscious then he or she has not experienced a concussion. This type of thinking is entirely wrong. Studies have shown that even when a player experiences having their "bell rung" or is "seeing stars" that they have often experienced a concussion. Although concussions occur more often in contact sports they can happen in any sport or recreation activity.

Review these statistics to see the ever-increasing danger concussions pose in youth sports:



- The CDC estimates between 1.6 million to 3.8 million concussions occur each year in sports-related activities
- 5-10% of all athletes will experience a concussion in any given sport season
- Fewer than 10% of sport-related concussions involve a loss of consciousness
- Football is the most common sport with concussion risk for males at a 75% chance
- Soccer is the most common sport with concussion risk for females at a 50% chance
- 78% of all concussions occur during games and only 22% during practice
- Headaches (85%) and dizziness (70-80%) are the most common symptoms athletes report experiencing immediately following concussions
- An estimated 47% of athletes do not report feeling any symptoms after a concussive blow

QUESTIONS FOR THIS SECTION

1 Which of the following activities can a concussion occur in?

- A) Football B) Cheerleading C) Biking D) All of the above

2 Which of the following statements regarding concussions is true?

- A) Youngsters can suffer one without being knocked unconscious B) Concussions can occur in any sport C) Seeing stars often is a result of a concussion D) All of the above
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Identifying Concussions

One of the most difficult tasks for a coach is recognizing when a concussion has occurred, especially in younger players. As a PAYS parent you have a responsibility to ensure the safety and well-being of your child at all times, so it is imperative that you are always closely watching them and if any of the following signs are observed, or symptoms are reported, that you immediately alert the coach to remove your child from the activity since it may signal that a concussion has been sustained:



- A forceful blow to the head or body that results in rapid movement of the head.
- Any changes in your child's behavior, thinking or physical functioning.

Below are some common signs that parents should be on the lookout for that may indicate that your child has suffered a concussion. Also listed are symptoms your child might report to you or their coach during or after a game that may also indicate a concussion. All of these warning signs and symptoms should be taken very seriously:

Signs observed by parents or guardians	Symptoms reported by the athlete
<ul style="list-style-type: none"> • Appears dazed or stunned • Is confused about assignment or position • Forgets sports plays • Is unsure of game, score or opponent • Moves clumsily • Answers questions slowly • Loses consciousness (even briefly) • Shows behavior or personality changes • Can't recall events prior to hit or fall • Can't recall events after hit or fall 	<ul style="list-style-type: none"> • Headache or "pressure" in head • Nausea or vomiting • Balance problems or dizziness • Double or blurry vision • Sensitivity to light • Sensitivity to noise • Feeling sluggish, hazy, foggy or groggy • Concentration or memory problems • Confusion • Does not "feel right"

Important: You can't see a concussion and some athletes may not experience and/or report symptoms until hours or days after the injury.

Step 1 is you have to have the index of suspicion. You have to realize that an event just happened - they hit their head, they fell to the floor, something happened that could cause a brain injury. Part 2 is they have to actually take the time and the effort to interact and communicate with the kid. It's a real natural for the kid to immediately bounce up, try to be tough, try to play it off and in doing so they don't want to appear weak. They want to please; they're there to please their coach, they're there to please their parents so they may maintain eye contact, they may focus on you, they may do everything they can except communicate, and that's not good enough. The critical point is you have to test their processing speed because at the end of the day the subtle little things like their speech, their memory, their interaction and their awareness - where are they, who are they, what are they doing, what position were they playing; what just happened? "I don't remember Coach" - those are all really pivotal signs and symptoms of concussions and it's not hard to recognize if you ask anything but you have to assess the brain performance.

Danger Signs

If concussion symptoms become more severe on the field or at home you need to consider it a medical emergency. Call 9-1-1 or take the child to the emergency room at the closest hospital immediately. Athletes who have sustained a concussion can have blood clots form on the brain and squeeze the brain against your child's skull which can cause serious damage. The following danger signs represent a medical emergency:

- Headache that does not go away or worsens
- Weakness or numbness
- Repeated vomiting or nausea
- Slurred speech
- One pupil larger than the other
- Loss or decrease in coordination
- Drowsiness or the inability to wake up
- Restlessness or unusual behavior
- Increasing confusion or agitation
- Convulsions or seizures
- Inability to recognize people or places
- Loss of consciousness (even for a brief moment)

QUESTIONS FOR THIS SECTION

1 When it comes to concussions it's important to remember:

- A) It's unlikely that your child will ever suffer one B) A concussion can be caused by a forceful blow to the head or body that results in rapid movement of the head. C) If your child mentions he or she is experiencing any symptoms of a concussion simply tell them to tough it out until they can be evaluated after the game. D) An emergency room visit for a concussion is never needed.


2 Which concussion symptoms should result in calling 9-1-1 or visiting the emergency room?

- A) A headache that will not go away B) Repeated vomiting or nausea C) Restlessness or unusual behavior D) All of the above

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Limiting the Risk of Concussions

As a coach, it is impossible to eliminate the chances of concussions occurring, but there are steps you can take to limit the potential risk, which are outlined below.

- **Educate parents** - Take time before the season to go over concussion education with your players' parents. Monitoring all of your players at every practice and game can be a little overwhelming at times so it is a good idea to have the parents of your players always on the lookout for any signs and symptoms of a concussion. Parents can reinforce that their children are following your rules and playing safely. They can also make sure their child is wearing the proper protective equipment and that it is secured correctly before games and practices. If your league does not provide parents any educational material on concussions, [click here](#) for a sample handout that you can print and distribute to your parents before the season begins.
- **Educate athletes** - Before the season, provide your players with a list of symptoms they might experience during a practice or game as a result of a concussion. These symptoms, such as dizziness, headaches or other similar conditions, should never be hidden for fear of being pulled out of the game or being punished. The symptoms they experience after a bump or blow to the head should be reported to you right away. Instruct your players to let you know if they experienced a bump or blow to the head, even if they feel fine, so you can evaluate that player for a concussion. It is often best to remove that player from the competition just as a precaution. The common saying "when in doubt, sit them out" often applies in situations such as these. [Click here](#) for a sample handout for your players. 
- **Teach safe play and good sportsmanship** - You should always educate your athletes to play by the rules and show good sportsmanship toward the opposition; rules are in place to help prevent injuries. Whenever rough or dangerous play is allowed this increases the chances of concussions and other injuries occurring. Playing the game correctly, such as always using the proper tackling technique in football, for example, is also recommended by doctors to prevent the risk of concussions.
- **Wear the right protective gear** - It is also important to teach your players to wear their protective equipment properly, make sure it fits well, and that it is used every time they play. In sports such as football and hockey, properly secured helmets and other gear can often be the difference between a hard hit and serious brain injury. Take a few minutes before each practice or game to check each player's equipment.
- **Strengthen the neck** - This is a relatively new concept in youth sports to prevent concussions and it is believed by some that strengthening the neck will help prevent a player's head from moving rapidly during a hard hit or from a blow to the head. Studies are ongoing and if you decide to do any sort of neck strengthening exercises with your players please consult a physical trainer before beginning. As a coach you must take into consideration the age of your players before performing any type of strengthening activity.

QUESTIONS FOR THIS SECTION

1 Before the season or game begins what should you do to help promote concussion safety?

- A) Meet with the players' parents to educate them on concussions and signs to watch for that a child has sustained one
- B) Talk to your players about the symptoms associated with concussions and the importance of never hiding them to stay in the game
- C) Both A and B
- D) None of the above

2 How can you minimize the chances of concussions occurring?

- A) By only teaching proper techniques for the respective sport
- B) By making sure players are wearing protective equipment properly
- C) By emphasizing safety and abiding by the rules of the sport at all times
- D) All of the above

Dealing With a Suspected Concussion

If you think a youngster may have sustained a concussion take these steps:

1. **Immediately remove the athlete from play.** If you or your coaches recognize any signs or symptoms of a concussion displayed by an athlete following a bump or blow to the head immediately remove that player from the activity. Players or parents might get upset about the removal, but always keep in mind that the youngster's safety is your No. 1 priority so it is always best to evaluate the player from the sideline.
2. **Have the athlete evaluated by a medical professional.** Once the player has been removed from the playing area ask him/her short-term memory questions such as the score of the game, the last meal they had, or the play they just made. Long-term memory questions can also be asked such as: their name, their birth date or their place of birth.

Once the index of suspicion is there and there is the presence that this kid may be concussed he needs to be evaluated by a concussion expert, whether it be an athletic trainer or a sports medicine doctor or family practice doctor trained in concussion management. They need to be evaluated for signs, symptoms and objective findings that would tell you this kid is concussed. How long they are going to stay out of sport is complicated and is unique to each kid and each situation and only a trained concussion expert really can make those subtle distinctions because it is a little bit nebulous.

3. **Inform the athlete's parents.** Following the activity, alert the parents or guardians of the possibility of a concussion and report any signs or symptoms you believe the child has experienced. Make sure the parents know that the athlete needs to be seen by a health care professional to be evaluated further. Parents should monitor their children for the next few days as additional symptoms can often take several days to appear. It's also important to note that children don't recover quicker than adults from concussions, as Dr. Masson explains below.

Well there's a huge myth that kids for concussions, just like everything else, will heal faster than adults. Concussions are one of the few sports injuries where that is entirely false. Children's brains are not well formed yet. They are a little immature, they don't have the same protective sheaths around all the little brain cells and so consequently it takes less injury, less severe momentum or impact to cause a more severe injury so kids take longer to heal and it takes less to cause a bad problem and kids need more special attention than anybody.

QUESTIONS FOR THIS SECTION

1 If you suspect that a player has suffered a concussion what should you do?

- A) Allow the player to continue playing and evaluate him or her after the game or practice
- B) Immediately remove the athlete from the activity C) Ask the child's parents if it's okay to remove him or her from the game or practice D) None of the above

2 Which of the following questions is NOT helpful if you suspect a player has sustained a concussion?

- A) What is the score of the game? B) When is your birthday? C) Do you have a concussion? D) What is the last meal you had?
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Allowing Children Back In Class

Athletes are typically anxious to get back on the field; and even parents are often eager to have their children back out on the field, but as coaches we need to be cautious and make sure that the player has written permission from a health care professional with experience in evaluating concussions before they can return to play. In the event of a concussion have the parents of the child consult the league or have them ask the player's primary health care provider for a list of experienced medical professionals in the area who are trained to evaluate concussions. Not all doctors have the right kind of expertise when dealing with young athletes and brain injuries.

After extensive research, doctors have found that there is no set time-table for recovery following a concussion. Symptoms can last minutes, hours, days, weeks or even months before the brain has properly healed. It is never acceptable to just take the word of the player or parent that they feel fine and that they have healed and/or recovered. For years coaches have been making the mistake of sending players back out on the field or court before the player is ready to go and by doing so they are often risking a more serious injury.

If the athlete returns to the field before they have fully recovered and experience a repeat concussion it is often much more severe and can even be fatal. Those athletes who return too soon can suffer a rare condition called *second impact syndrome*. This condition is more common in young athletes and can often be avoided by getting the proper evaluation from a health care professional. Once an athlete has suffered an initial concussion, his or her chances of a second one are 3 to 6 times greater than an athlete who has never sustained a concussion.

Resting

Doctors will always recommend an athlete who has sustained a concussion get as much rest as possible in the days and weeks following the incident. Rest helps the brain recover and heal itself. Rest is not just referred to as getting plenty of sleep, it also means having the player relax throughout the day. Having the child return to play too soon will cause their brain to divert the energy it needs to heal into energy needed for the activity. Ignoring concussion symptoms or trying to "tough it out" will often make symptoms worse and can prolong your player's recovery. Resting is not just recommended for physical activity but for cognitive activities as well. The player's at home activities, such as watching television, playing video games or even homework can cause symptoms to remain, reappear or even get worse. For those players who have sustained a concussion, they should consult with their doctor before any at home activities and school routines are begun.

Also, be prepared for your player to try and resist the doctor's and their parent's orders. They might see their friends playing in games and want to join them but you should:

- Speak with the parent first and find out what diagnosis the doctor gave the player
- Discuss the situation with the player and his or her parents.
- Talk about the risks of them playing too soon.
- Offer support and encouragement that they will get better each and every day if they follow the proper recovery procedures outlined by their doctor.

Returning to Play

All athletes recover differently following a concussion and when it is safe to return to play differs for each player. Recovery often varies depending on which sport they are participating in, too. Your players must receive written permission from a health care professional with concussion management experience before returning to play. Your player's doctor should also provide an action plan to get your player ready to compete again, which you can find a sample of below. Players should be symptom



free at rest, as well as while doing any physical or cognitive activities, before attempting a comeback.

Sample Plan

This sample plan should take approximately one week to complete once the player has stopped experiencing concussion symptoms. Each step should take one day to complete if the player experiences no symptoms during or after these steps. This plan should only be performed with the written approval and guidance of a health care professional and in the presence of the player's parent/guardian. Some steps may be completed prior to your player attending practice again so be sure to check with the player's parents/guardian before beginning any plan. Make certain that you and the parent or guardian have the player follow the doctor's instructions carefully throughout each step.

Step 1 - Increase the player's heart rate with some light aerobic exercises - for just 5-10 minutes - with limited head or body movement. These can include walking, light jogging and riding an exercise bike. It is important that no physical contact is involved.

Step 2 - Increase the player's heart rate a little more with exercises that incorporate limited head or body movement. This can include moderate jogging or stationary biking, light calisthenics and even brief sprinting. This step can last between 20-30 minutes.

Step 3 - Now the player can begin heavy non-contact activity. Sprinting or running, intense exercise biking, agility exercises, jumping or weightlifting drills and non-contact sports-specific drills can be attempted. As the exercise becomes more intense the session can last between 45-60 minutes.

Step 4 - Reintroduce the player into a controlled practice experience and allow for full contact. Make sure the other players are aware that the player has experienced a concussion so they are not too rough during the activity.

Step 5 - Allow the player to return to game activity - as long as he or she has not experienced any setbacks during any of the preceding steps.

Remember, this is only a recommended action plan and the player's health care professional should be consulted before any activities are begun. Keep your eyes open for any physical or cognitive symptoms that might occur during each step. During these steps it is crucial that the player understands the importance of providing honest feedback on how they are feeling after completing a step. Any new or previously experienced symptoms should be reported to the player's health care professional and you will need to have the child drop back to the previous step that they feel comfortable with after the symptoms have subsided. Also keep in mind that some kids will want to return to their practices and games so badly that they will, despite your repeated warnings on the importance of being completely honest about how they are feeling, attempt to hide any lingering symptoms they may be experiencing. So be vigilant and carefully observe their body language and mannerisms as they are going through these steps - their health and well-being depends upon it.

We hope this information will help you during your season to limit any potential injury risks; assist you in identifying concussions and recognizing the symptoms associated with them; and prepare you for the proper safety steps to follow once you suspect that a player has sustained a concussion.

QUESTIONS FOR THIS SECTION

1 How long must a player sit out after suffering a concussion before being allowed to return?

- A) 24 to 48 hours B) About a week C) Until the child says he or she feels fine D) Until the child's doctor says it's safe to return

2 Which of the following statements is NOT accurate?

- A) Concussion symptoms only last a few minutes
- B) Athletes who return from a concussion too soon are at risk of "second impact syndrome"
- C) Resting is one of the key components to recovering from a concussion
- D) At home activities can cause concussion symptoms to remain