# FLIP & TWIST: PARENT'S 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 occur in any sport C) Seeing stars often is a result of a concussion | , |
|   |   |

## **Identifying Concussions**

One of the most difficult tasks for a parent 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

- 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

#### Symptoms reported by the athlete

- 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 your 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 recognizes people or places
- Loss of consciousness (even for a brief moment)

To prepare yourself in the event your child sustains a concussion, every parent should be aware of their league and state policies on concussions before a season begins as policies and regulations can change from year to year. Contact your league or visit this website to learn more about your state concussion laws.

#### 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. $^{\circ}$ 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   |
| Grade and View Next Section  |

## **Dealing with a Suspected Concussion**

If you think or are told your child may have sustained a concussion take these steps:

- 1. Have your child removed from the activity. If you or your child's coach recognize any signs or symptoms of a concussion being displayed by your child following a bump or blow to the head, immediately have the coach remove your child from the activity. Players or coaches might get upset about the removal, but always keep in mind that your child's safety is your Number 1 priority so it is always best to remove the child and seek further evaluation from the sideline. It is also important that you do not let your child return to the activity/game if you believe they have sustained a concussion.
- 2. Evaluating your child. Once your child has been removed from the playing area the coach or athletic trainer present should be trained to 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. If a coach or trainer is not available or equipped to ask these questions you would be the next best person in line to evaluate your child. These simple questions will help you assess your child's condition immediately following the incident so that you can inform the doctor regarding the severity of the concussion.
- 3. Visit a doctor trained in concussion management. As you know, even doctors have certain qualifications and fields of expertise, so as a result not all doctors are equipped to evaluate your child for a concussion. Your league or primary health care provider should be able to supply you with a list of doctors in the area that are qualified in evaluating concussions. A properly trained doctor will be able to determine the severity of the concussion and when it is safe for your child to return to the activity.

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.

Most states now have concussion laws requiring coaches to receive written doctor approval before allowing players back on the field. Therefore, you will need to obtain clearance from the doctor before your child can begin any activities. Doctors will often recommend having a training regimen that your child must complete before returning to action. Such regimens are discussed in the next section.

## **QUESTIONS FOR THIS SECTION**

| If you suspect that your child has suffered a concussion what should you do?                            |
|---|
| A) Allow your child to continue playing and ask them to tough it out B) Ask the coach to                |
| immediately remove the athlete from the activity C) Only evaluate your child for a concussion           |
| after the game or activity D) None of the above   |
| 2 Which of the following questions is NOT helpful if you suspect your child 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?   |

## **Steps to Recovery**

Athletes are typically anxious to get back on the field; and even coaches are often eager to have their players back out on the field, but as parents you need to be cautious and make sure your child has taken the proper steps before returning to play. Never allow yourself or the coach to pressure your child to return to play if they do not feel comfortable enough to return.

After extensive research, doctors have found that there is no set timetable 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 coach's word or the word of your child that they feel fine and that they have healed and/or recovered. For years coaches have been making the mistake of sending players back into the game before the player has fully recovered and by doing so they are putting the child at increased risk of sustaining an even more serious injury.

If the athlete returns to play before they have fully recovered and experience a repeat concussion it is frequently 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.

Parents should monitor their children for the next few days following a suspected concussion and even after doctor visits as additional symptoms can take several days to appear. Athletes should never return to games or practices if they are still experiencing concussion related symptoms. It's also important to note that children don't recover quicker

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.

#### 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 your child relax throughout the day. Having your 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 child's recovery. Resting is not just recommended for physical activity but for cognitive activities as well. Returning to school or having to concentrate on an activity at home, such as playing video games or watching television, can cause symptoms to remain, reappear or even get worse.

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

- Discuss the situation with them.
- 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.

Always consult with your health care professional trained in concussion management to find the proper way for your child to return to normal activities. If your child sustains a concussion make

sure coaches, teachers, school nurses, athletic trainers, other school administrators, and anyone else involved in the daily life of your child know that they have sustained a concussion. All those adults should be able to help monitor and watch for any lingering signs of a concussion. Below are recommended guidelines for your child to return to school, daily life, and sports.

#### **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 child must receive written permission from a health care professional with concussion management experience before returning to play. Your doctor should also provide an action plan to get your child 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. Coaches and athletic trainers should be aware of the injury and any



symptoms that your child has experienced so they can be on the lookout for any recurring symptoms.

#### Sample Plan

This sample plan should take approximately one week to complete once your child has stopped experiencing concussion symptoms. Each step should take one day to complete if your child 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. Make sure that you, your child and your child's coach follow the doctor's instructions carefully throughout each step.

- **Step 1** Increase your child'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 your child'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 your child 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 become more intense the session can last between 45-60 minutes.
- **Step 4** Reintroduce your child into a controlled practice experience and allow for full contact. Make sure the other players are aware that your child has experienced a concussion so they are not too rough during the activity.
- **Step 5** Allow your child 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 your child'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 your child 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 your child'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.

#### **Returning to School**

Your child's health care professional will help you evaluate when your child can return to school. Shortened or half days might be in order at first as cognitive and mental activities can be just as stressful on your child's brain as physical activities. Your child's teacher, school counselor, administrators and nurse should be aware that your child has sustained a concussion and has experienced certain symptoms. School personnel should be monitoring the following school-related symptoms and accommodate your child's in-school needs.

#### **School personnel can watch for:**

- Trouble paying attention.
- Struggles remembering or learning new information.
- Needs more time to complete assignments. •
- Has trouble coping with stress or becomes irritable more easily.
- Additional symptoms like headaches or vision worsens doing schoolwork.

### Your child may need to:

- Take multiple breaks during the day.
- Be given more time to complete schoolwork.
- Receive help or support with assignments.
- Spend less time reading, writing, or using a computer.
- Avoid loud noises and bright lights.
- Refrain from participating in recess and P.E. related activities.

#### **Returning to Daily Life**

Returning to daily activities should not be overlooked after a concussion has been sustained. Your child's health care professional will give recommendations on what you can do for your child over the next few days. Those steps will include making sure your child gets plenty of rest throughout the day and adequate sleep at night. Plan a strict bedtime for every day of the week and on weekends. Allow daytime naps or even breaks from daily activity if your child feels exhausted or tired. You will need to instruct your child to stay away from homework, reading, video games, cell phone or computer use, television and board games as well.

Your child should not perform any physical activities that could potentially cause another injury or might cause physical exhaustion, which can trigger an increase in concussion related symptoms. Your child might become bored or irritated with the lack of activity so be sure to explain what is going on and that it is a necessary precaution to adhere to these guidelines to make sure they get better as soon as possible. Don't forget to have your child eat properly and stay well hydrated. Good nutrition and hydration are key components of the healing process.

Have your doctor evaluate your child's concussion symptoms throughout the recovery period to make any necessary changes and help guide your family through the crucial recovery process.

#### QUESTIONS FOR THIS SECTION

| QUESTIONS FOR THIS SECTION  |
|---|
| 1 How long must your child sit out after suffering a concussion before being allowed to return?                                       |
| A) 24 to 48 hours B) About a week C) Until your child says he or she feels fine D) Until your child's doctor says it's safe to return |
| 2 Which of the following statements is NOT accurate?  |

A) Children recover quicker from concussions than adults 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) All of the above

# **Education for Athletes to Help Prevent Concussions**

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

Educate your child - Before the season, provide and discuss with your child 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 listed in the Indentify Concussions section of this training, 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 the coach and to you right away. Instruct your child to let the coach know if they experience a bump or blow to the head, even if they feel fine. The coach should pull them



out of the game as a precaution and begin the evaluation process. The common saying "when in doubt, sit them out" often applies in situations such as these.

**Teach safe play and good sportsmanship** - You should always educate your child 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 and make certain your child is wearing their protective equipment properly, that 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 simply a hard hit that occurs during the course of play and a serious brain injury. Take a few minutes before each practice or game to check that their equipment is fitting properly and it is in good condition.

We hope this information will help you during your child's season and sports career to limit any potential injury risks; assist you in indentifying concussions and recognizing the symptoms associated with them; educating your child about the serious nature of concussions and the importance of speaking up when symptoms are present; and prepare you for the proper steps to follow once you suspect that your child has sustained a concussion.

| QUESTIONS FOR THIS SECTION   |
|--|
| 1 Before the season or game begins what should you do to help promote concussion safety?                   |
| A) Teach your child how to wear their protective equipment properly and make sure it is                    |
| secure before any practice or game. B) Talk to your child about the symptoms associated                    |
| with concussions and the importance of never hiding them to stay in the game $^{igcap}$ C) Both A and      |
| B <sup>O</sup> D) None of the above  |
| 2 How can you minimize the chances of concussions occurring?   |
| A) By making sure your child only uses proper techniques for the respective sport B) By                    |
| emphasizing safety and abiding by the rules of the sport at all times C) Both A and B D) None of the above |
|  |