

ACT 314

Louisiana Youth Concussion Act

During the 2011 Legislative session ACT 314, “Louisiana Youth Concussion Act”, was signed into law. ACT 314 has three major requirements.

1. Prior to beginning of each athletic season, provide pertinent information to all coaches, officials, volunteers, youth athletes, and their parents or legal guardian which informs of the nature and risk of concussion and head injury, including the risks associated with continuing to play after a concussion or head injury.
2. Require each coach, whether such coach is employed or a volunteer, and every official of a youth activity that involves interscholastic play to complete an annual concussion recognition education course.
3. Requires as a condition of participation in any athletic activities that the youth athlete and the youth athlete’s parent or legal guardian sign a concussion and head injury information sheet which provides adequate notice of the statutory requirements which must be satisfied in order for an athlete who has or is suspected to have suffered a concussion or head injury to return to play.

ACT 314 gives the responsibility of compliance of the act to the governing authority of each public and nonpublic elementary school, middle school, junior high school, and high school. As a result of many requests from our member schools, the LHSAA Sports Medicine Advisory Committee met and came up with some suggestions that may help our member schools to be

in compliance with this law. We have included the following documents to help you in your responsibility. The LHSAA is not named in this law, so **DO NOT SEND THIS DOCUMENTATION TO THE LHSAA**; keep it on file at your school for your own protection of compliance.

General Information

- LHSAA Concussion Policy/Rule (Adopted in 2010)
- Suggested Return-to-Play Healthcare Provider Release
- Suggested Step-wise Return-to-Play Progression
- LHSAA Suggested Home Instruction Sheet
- LHSAA Return-to-Competition Form
- Pocket SCAT2 Evaluation Tool

Coaches/Officials Information

- A Fact Sheet for Coaches (Center for Disease Control and Prevention or CDC)
- A Coaches Concussion Statement (LHSAA Sports Medicine Committee)
- A Sideline Sheet for Coaches (Center for Disease Control and Prevention or CDC)
- An Officials Concussion Statement (LHSAA Sports Medicine Committee)

Student-Athletes/Parents Information

- A Fact Sheet for Athletes (Center for Disease Control and Prevention or CDC)
- A Fact Sheet for Parents (Center for Disease Control and Prevention or CDC)
- A Parent's Guide to Concussion in Sports (National Federation of State High School Association or NFHS)
- A Parent and Student-Athlete Concussion Statement (LHSAA Sports Medicine Committee)
- A Home Instruction Sheet (LHSAA Sports Medicine Committee)

To help meet the education course aspect of ACT 314, the LHSAA recommends that individuals go to the NFHS website, www.nfhslearn.com, and click the link [Concussion in Sports: What you need to Know](#), under **Great Free Courses**.

LHSAA BASIC CONCUSSION RULE

Any player who exhibits signs, symptoms or behaviors consistent with a concussion (such as loss of consciousness, headache, dizziness, confusion or balance problems) shall be immediately removed from the contest and shall not return to play until cleared by an appropriate health-care professional.

A concussion is a traumatic brain injury that interferes with normal brain function. An athlete does not have to lose consciousness to have suffered a concussion.

Common Symptoms of Concussion include:

headache, fogginess, difficulty concentrating, easily confused, slowed thought processes, difficulty with memory, nausea, lack of energy, dizziness or poor balance, blurred vision, sensitive to light and sounds, mood changes—irritable, anxious, or tearful

LHSAA Adopted Concussion Management Protocol:

1. No athlete shall return to play (RTP) or practice on the same day of a concussion.
2. Any athlete suspected of having a concussion shall be evaluated by an appropriate health-care professional that day. If one is not available, the Head Coach shall make the determination.
3. Any athlete diagnosed with a concussion shall be medically cleared by a Medical Doctor or a Doctor of Osteopathic medicine, each of which must be licensed to practice in Louisiana, prior to resuming participation in any practice or competition.
4. After medical clearance, RTP should follow a step-wise protocol with provisions as determined by a Medical Doctor or Doctor of Osteopathic Medicine, each licensed to practice in Louisiana, for delayed RTP based upon return of any signs or symptoms.

Name: _____

Date of Concussion (head trauma): _____

Loss of Consciousness: Yes No

Date of Private Physician Clearance: _____

Stage	Asymptomatic (no signs or symptoms of a concussion) Date & Initials of Examiner
Stage 1A: Rest (physical & mental)	Pass (P) Fail (F): Reason for failure: Initials: _____
Stage 1B: Return to class/academics	P F Date _____ P F Date _____ P F _____ Reason for failure: Initials: 1. _____ 2. _____ 3. _____
Stage 2: Light aerobic activity (e.g. walking, jogging, stationary bike)	P F Date _____ P F Date _____ P F _____ Reason for failure: Initials: 1. _____ 2. _____ 3. _____
Stage 3: Sport-specific training	P F Date _____ P F Date _____ P F _____ Reason for failure: Initials: 1. _____ 2. _____ 3. _____
Stage 4: Non-contact training drills (start light-resistance training)	P F Date _____ P F Date _____ P F _____ Reason for failure: Initials: 1. _____ 2. _____ 3. _____
Stage 5: Full-contact training after medical clearance by the school physician	P F Date _____ P F Date _____ P F _____ Reason for failure: Initials: 1. _____ 2. _____ 3. _____
Stage 6: Return to competition (game play)	District Physician signature & date

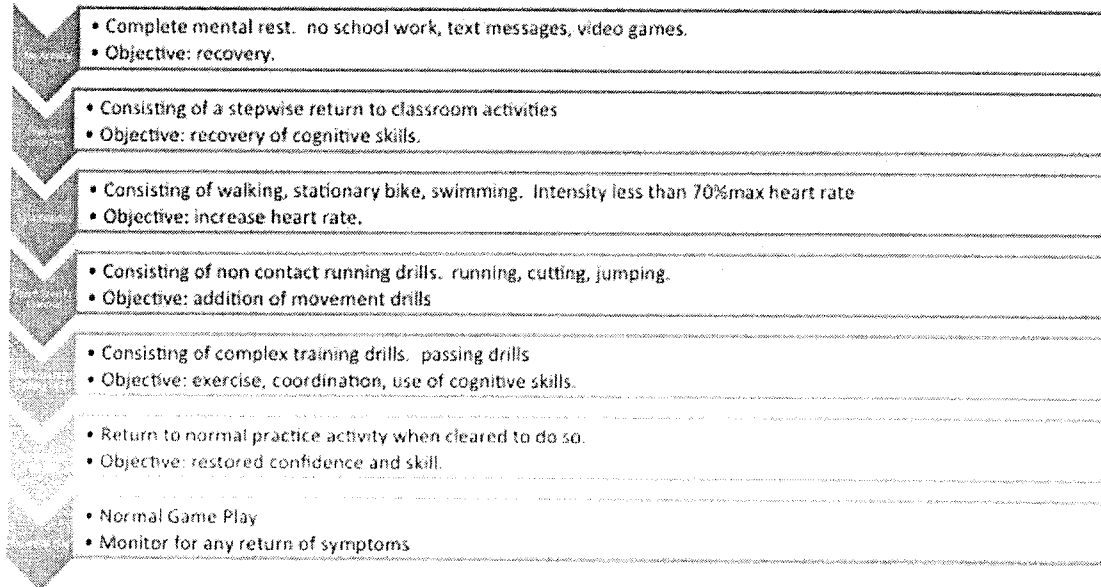
Signs & symptoms of a post-concussion syndrome

1. Seizure/convulsion
2. amnesia
3. headache
4. "pressure in head"
5. neck pain
6. nausea
7. dizziness
8. blurred vision
9. balance problems
10. sensitivity to light or noise
11. feeling slowed down
12. feeling like "in a fog"
13. "don't feel right"
14. difficulty concentrating or remembering
15. fatigue or low energy
16. confusion, drowsiness
17. more emotional irritability
18. sadness
19. nervous or anxious

Step-wise Approach Return-to-Play Progression

Rules:

1. Monitor symptoms closely.
2. Do not progress to the next step until symptom free for about 24 hours.
3. If symptoms occur the athlete should return to Step 1.



**Louisiana High School Athletic Association
Concussion Information: Home Instruction Sheet**

Name: _____

Date: _____

You have had a head injury or concussion and need to be watched closely for the next 24-48 hours.

It is OK to:	There is no need to:	DO NOT:
Use Tylenol (acetaminophen)	Check eyes with a light	Drink Alcohol
Use an ice pack to head/neck for comfort	Wake up every hour	Eat spicy foods
Eat a light meal	Stay in bed	Drive a car
Go to sleep		Use aspirin, Aleve, Advil or other NSAID products

Special Recommendations: _____

WATCH FOR ANY OF THE FOLLOWING PROBLEMS:

Worsening headache	Stumbling/loss of balance
Vomiting	Weakness in one arm/leg
Decreased level of Consciousness	Blurred Vision
Dilated Pupils	Increase irritability
Increased Confusion	

If any of these problems develop, call your athletic trainer or physician immediately.

Athletic Trainer: _____

Phone: _____

Physician: _____

Phone: _____

You need to be seen for a follow-up examination at _____ AM/PM at: _____

Recommendations provided to _____

Recommendation provided by _____



LOUISIANA HIGH SCHOOL ATHLETIC ASSOCIATION

12720 Old Hammond Highway
Baton Rouge, LA 70816
(225) 296-5882 Fax: (225) 296-5919

RETURN TO COMPETITION

LHSAA rules require a written statement from a physician in order for an athlete to return to competition who apparently had a concussion.

“If a competitor is determined to have a concussion, he/she shall not be permitted to continue practice or competition the same day. Written approval of a physician shall be required for the athlete to return to competition. If a physician recommends an athlete not continue, he/she shall not be overruled”.

The undersigned physician has examined the student athlete identified below and gives permission for the student athlete to return to competition on the date and in the event identified.

ATHLETE	_____
SCHOOL	_____
SPORT	_____
	RTC DATE _____

PHYSICIAN SIGNATURE (MUST BE M.D. OR D.O.)

DATE SIGNED

(Duplicate as needed)

This form shall be completed in its entirety and kept on file at the school.

Pocket SCAT2



FIFA®



Concussion should be suspected in the presence of any one or more of the following: symptoms (such as headache), or physical signs (such as unsteadiness), or impaired brain function (e.g. confusion) or abnormal behaviour.

1. Symptoms

Presence of any of the following signs & symptoms may suggest a concussion.

- Loss of consciousness
- Seizure or convulsion
- Amnesia
- Headache
- "Pressure in head"
- Neck Pain
- Nausea or vomiting
- Dizziness
- Blurred vision
- Balance problems
- Sensitivity to light
- Sensitivity to noise
- Feeling slowed down
- Feeling like "in a fog"
- "Don't feel right"
- Difficulty concentrating
- Difficulty remembering
- Fatigue or low energy
- Confusion
- Drowsiness
- More emotional
- Irritability
- Sadness
- Nervous or anxious

2. Memory function

Failure to answer all questions correctly may suggest a concussion.

"At what venue are we at today?"

"Which half is it now?"

"Who scored last in this game?"

"What team did you play last week / game?"

"Did your team win the last game?"

3. Balance testing

Instructions for tandem stance

"Now stand heel-to-toe with your non-dominant foot in back. Your weight should be evenly distributed across both feet. You should try to maintain stability for 20 seconds with your hands on your hips and your eyes closed. I will be counting the number of times you move out of this position. If you stumble out of this position, open your eyes and return to the start position and continue balancing. I will start timing when you are set and have closed your eyes."

Observe the athlete for 20 seconds. If they make more than 5 errors (such as lift their hands off their hips; open their eyes; lift their forefoot or heel; step, stumble, or fall; or remain out of the start position for more than 5 seconds) then this may suggest a concussion.

Any athlete with a suspected concussion should be IMMEDIATELY REMOVED FROM PLAY, urgently assessed medically, should not be left alone and should not drive a motor vehicle.



HEADS UP CONCUSSION IN YOUTH SPORTS

A Fact Sheet for **COACHES**

To download the coaches fact sheet in Spanish, please visit www.cdc.gov/ConcussionInYouthSports
Para descargar la hoja informativa para los entrenadores en español, por favor visite:
www.cdc.gov/ConcussionInYouthSports

THE FACTS

- A concussion is a **brain injury**.
- All concussions are **serious**.
- Concussions can occur **without** loss of consciousness.
- Concussions can occur **in any sport**.
- Recognition and proper management of concussions when they **first occur** can help prevent further injury or even death.

WHAT IS A CONCUSSION?

A concussion is an injury that changes how the cells in the brain normally work. A concussion is caused by a blow to the head or body that causes the brain to move rapidly inside the skull. Even a “ding,” “getting your bell rung,” or what seems to be a mild bump or blow to the head can be serious. Concussions can also result from a fall or from players colliding with each other or with obstacles, such as a goalpost.

The potential for concussions is greatest in athletic environments where collisions are common.¹ Concussions can occur, however, in **any** organized or unorganized sport or

recreational activity. As many as 3.8 million sports- and recreation-related concussions occur in the United States each year.²

RECOGNIZING A POSSIBLE CONCUSSION

To help recognize a concussion, you should watch for the following two things among your athletes:

1. A forceful blow to the head or body that results in rapid movement of the head.

-and-

2. Any change in the athlete’s behavior, thinking, or physical functioning. (See the signs and symptoms of concussion listed on the next page.)

It’s better to miss one game than the whole season.



SIGNS AND SYMPTOMS

SIGNS OBSERVED BY COACHING STAFF

- 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 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"

Adapted from Lovell et al. 2004

Athletes who experience any of these signs or symptoms after a bump or blow to the head should be kept from play until given permission to return to play by a health care professional with experience in evaluating for concussion. Signs and symptoms of concussion can last from several minutes to days, weeks, months, or even longer in some cases.

Remember, you can't see a concussion and some athletes may not experience and/or report symptoms until hours or days after the injury. If you have any suspicion that your athlete has a concussion, you should keep the athlete out of the game or practice.

PREVENTION AND PREPARATION

As a coach, you can play a key role in preventing concussions and responding to them properly when they occur. Here are some steps you can take to ensure the best outcome for your athletes and the team:

- **Educate athletes and parents about concussion.** Talk with athletes and their parents about the dangers and potential long-term consequences of concussion. For more information on long-term effects of concussion, view the following online video clip: http://www.cdc.gov/ncipc/tbi/Coaches_Tool_Kit.htm#Video.

Explain your concerns about concussion and your expectations of safe play to athletes, parents, and assistant coaches. Pass out the concussion fact sheets for athletes and for parents at the beginning of the season and again if a concussion occurs.

- **Insist that safety comes first.**
 - > Teach athletes safe playing techniques and encourage them to follow the rules of play.
 - > Encourage athletes to practice good sportsmanship at all times.
 - > Make sure athletes wear the right protective equipment for their activity (such as helmets, padding, shin guards, and eye and mouth guards). Protective equipment should fit properly, be well maintained, and be worn consistently and correctly.
 - > Review the athlete fact sheet with your team to help them recognize the signs and symptoms of a concussion.

Check with your youth sports league or administrator about concussion policies. Concussion policy statements can be developed to include the league's commitment to safety, a brief description of concussion, and information on when athletes can safely return to play following a concussion (i.e., an athlete with known or suspected concussion should be kept

from play until evaluated and given permission to return by a health care professional). Parents and athletes should sign the concussion policy statement at the beginning of the sports season.

- **Teach athletes and parents that it's not smart to play with a concussion.** Sometimes players and parents wrongly believe that it shows strength and courage to play injured. Discourage others from pressuring injured athletes to play. Don't let athletes persuade you that they're "just fine" after they have sustained any bump or blow to the head. Ask if players have ever had a concussion.
- **Prevent long-term problems.** A repeat concussion that occurs before the brain recovers from the first—usually within a short period of time (hours, days, or weeks)—can slow recovery or increase the likelihood of having long-term problems. In rare cases, repeat concussions can result in brain swelling, permanent brain damage, and even death. This more serious condition is called *second impact syndrome*.^{4,5} Keep athletes with known or suspected concussion from play until they have been evaluated and given permission to return to play by a health care professional with experience in evaluating for concussion. Remind your athletes: "It's better to miss one game than the whole season."

ACTION PLAN

WHAT SHOULD A COACH DO WHEN A CONCUSSION IS SUSPECTED?

- 1. Remove the athlete from play.** Look for the signs and symptoms of a concussion if your athlete has experienced a bump or blow to the head. Athletes who experience signs or symptoms of concussion should not be allowed to return to play. When in doubt, keep the athlete out of play.
- 2. Ensure that the athlete is evaluated right away by an appropriate health care professional.** Do not try to judge the severity of the injury yourself. Health care professionals have a number of methods that they can use to assess the severity of concussions. As a coach, recording the following information can help health care professionals in assessing the athlete after the injury:
 - Cause of the injury and force of the hit or blow to the head
 - Any loss of consciousness (passed out/knocked out) and if so, for how long
 - Any memory loss immediately following the injury
 - Any seizures immediately following the injury
 - Number of previous concussions (if any)

- 3. Inform the athlete's parents or guardians about the possible concussion and give them the fact sheet on concussion.**

Make sure they know that the athlete should be seen by a health care professional experienced in evaluating for concussion.

- 4. Allow the athlete to return to play only with permission from a health care professional with experience in evaluating for concussion.** A repeat concussion that

occurs before the brain recovers from the first can slow recovery or increase the likelihood of having long-term problems. Prevent common long-term problems and the rare *second impact syndrome* by delaying the athlete's return to the activity until the player receives appropriate medical evaluation and approval for return to play.

REFERENCES

1. Powell JW. Cerebral concussion: causes, effects, and risks in sports. *Journal of Athletic Training* 2001; 36(3):307-311.
2. Langlois JA, Rutland-Brown W, Wald M. The epidemiology and impact of traumatic brain injury: a brief overview. *Journal of Head Trauma Rehabilitation* 2006; 21(5):375-378.
3. Lovell MR, Collins MW, Iverson GL, Johnston KM, Bradley JP. Grade 1 or "ding" concussions in high school athletes. *The American Journal of Sports Medicine* 2004; 32(1):47-54.
4. Institute of Medicine (US). Is soccer bad for children's heads? Summary of the IOM Workshop on Neuropsychological Consequences of Head Impact in Youth Soccer. Washington (DC): National Academy Press; 2002.
5. Centers for Disease Control and Prevention (CDC). Sports-related recurrent brain injuries-United States. *Morbidity and Mortality Weekly Report* 1997; 46(10):224-227. Available at: www.cdc.gov/mmwr/preview/mmwrhtml/00046702.htm.

If you think your athlete has sustained a concussion... take him/her out of play, and seek the advice of a health care professional experienced in evaluating for concussion.

Louisiana High School Athletic Association
Coaches Concussion Statement

- I have read and understand the LHSAA Concussion Management Protocol.
- I have read and understand the Concussion Fact Sheet.

After reading the Concussion Fact Sheet, and reviewing the LHSAA Concussion Management Protocol, I am aware of the following information:

Initial:

_____ A concussion is a brain injury which athletes should report to the medical staff.

_____ A concussion can affect the athlete's ability to perform everyday activities, and affect reaction time, balance, sleep, and classroom performance. You cannot always see a concussion, but you might notice some of the symptoms right away. Other symptoms can show up hours or days after the injury.

_____ I will not knowingly allow the athlete to return to play in a game or practice if he/she has received a blow to the head or body that results in concussion-related symptoms.

_____ Athletes shall not return to play in a game or practice on the same day that they are suspected of having a concussion.

_____ If I suspect one my athletes has a concussion, it is my responsibility to have that athlete see the medical staff.

_____ I will encourage my athletes to report any suspected injuries and illnesses to the medical staff, including signs and symptoms of concussions.

_____ Following concussion the brain needs time to heal. Concussed athletes are much more likely to have a repeat concussion if they return to play before their symptoms resolve. In rare cases, repeat concussions can cause permanent brain damage, and even death

_____ I am aware that athletes diagnosed with a concussion must be assessed by an appropriate healthcare provider. Athletes will begin a graduated return to play protocol following full recovery of neurocognition and balance.

Signature of Coach

Date

Printed Name of Coach





SIGNS AND SYMPTOMS

These signs and symptoms may indicate that a concussion has occurred.

SIGNS OBSERVED BY COACHING STAFF	SYMPTOMS REPORTED BY ATHLETE
Appears dazed or stunned	Headache or "pressure" in head
Is confused about assignment or position	Nausea or vomiting
Forgets sports plays	Balance problems or dizziness
Is unsure of game, score, or opponent	Double or blurry vision
Moves clumsily	Sensitivity to light
Answers questions slowly	Sensitivity to noise
Loses consciousness (even briefly)	Feeling sluggish, hazy, foggy, or groggy
Shows behavior or personality changes	Concentration or memory problems
Can't recall events prior to hit or fall	Confusion
Can't recall events after hit or fall	Does not "feel right"

ACTION PLAN

If you suspect that a player has a concussion, you should take the following steps:

1. Remove athlete from play.
2. Ensure athlete is evaluated by an appropriate health care professional. Do not try to judge the seriousness of the injury yourself.
3. Inform athlete's parents or guardians about the known or possible concussion and give them the fact sheet on concussion.
4. Allow athlete to return to play **only** with permission from an appropriate health care professional.

IMPORTANT PHONE NUMBERS

FILL IN THE NAME AND NUMBER OF YOUR LOCAL HOSPITAL(S) BELOW:

Hospital Name: _____

Hospital Phone: _____

Hospital Name: _____

Hospital Phone: _____

For immediate attention, CALL 911

If you think your athlete has sustained a concussion... take him/her out of play, and seek the advice of a health care professional experienced in evaluating for concussion.

For more information and to order additional materials **free-of-charge**, visit:
www.cdc.gov/ConcussionInYouthSports

LOUISIANA HIGH SCHOOL ATHLETIC ASSOCIATION

OFFICIALS CONCUSSION STATEMENT

After reading the Concussion Fact Sheet, and reviewing the LHSAA Concussion Management Protocol, I am aware of the following information:

Initial:

_____ A concussion is a brain injury which athletes should report to the medical staff.

_____ A concussion can affect the athlete's ability to perform everyday activities, and affect reaction time, balance, sleep, and classroom performance. You cannot always see a concussion, but you might notice some of the symptoms right away. Other symptoms can show up hours or days after the injury.

_____ I will not knowingly allow the athlete to return to play in a game if he/she has received a blow to the head or body that results in concussion-related symptoms.

_____ Athletes shall not return to play in a game on the same day that they are suspected of having a concussion.

_____ If I suspect an athlete has suffered a concussion, it is my responsibility to take that athlete to the sideline to the Head Coach.

_____ I will encourage the athlete to report any suspected injuries and illnesses to the medical staff, including signs and symptoms of concussions.

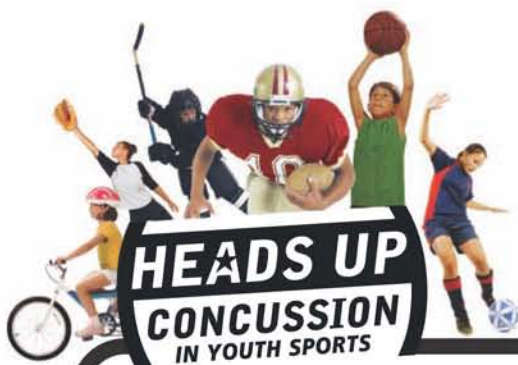
_____ Following concussion the brain needs time to heal. Concussed athletes are much more likely to have a repeat concussion if they return to play before their symptoms resolve. In rare cases, repeat concussions can cause permanent brain damage, and even death.

_____ I am aware that athletes diagnosed with a concussion must be assessed by an appropriate healthcare provider. Athletes will begin a graduated return to play protocol following full recovery of neurocognition and balance.

Printed Name of Official

Signature of Official





A Fact Sheet for **ATHLETES**

WHAT IS A CONCUSSION?

A concussion is a brain injury that:

- Is caused by a bump or blow to the head
- Can change the way your brain normally works
- Can occur during practices or games in any sport
- Can happen even if you haven't been knocked out
- Can be serious even if you've just been "dinged"

WHAT ARE THE SYMPTOMS OF A CONCUSSION?

- Headache or "pressure" in head
- Nausea or vomiting
- Balance problems or dizziness
- Double or blurry vision
- Bothered by light
- Bothered by noise
- Feeling sluggish, hazy, foggy, or groggy
- Difficulty paying attention
- Memory problems
- Confusion
- Does not "feel right"

WHAT SHOULD I DO IF I THINK I HAVE A CONCUSSION?

- **Tell your coaches and your parents.** Never ignore a bump or blow to the head even if you feel fine. Also, tell your coach if one of your teammates might have a concussion.

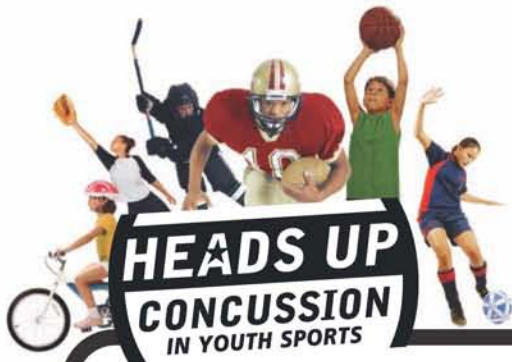
- **Get a medical check up.** A doctor or health care professional can tell you if you have a concussion and when you are OK to return to play.
- **Give yourself time to get better.** If you have had a concussion, your brain needs time to heal. While your brain is still healing, you are much more likely to have a second concussion. Second or later concussions can cause damage to your brain. It is important to rest until you get approval from a doctor or health care professional to return to play.

HOW CAN I PREVENT A CONCUSSION?

Every sport is different, but there are steps you can take to protect yourself.

- Follow your coach's rules for safety and the rules of the sport.
- Practice good sportsmanship at all times.
- Use the proper sports equipment, including personal protective equipment (such as helmets, padding, shin guards, and eye and mouth guards). In order for equipment to protect you, it must be:
 - The right equipment for the game, position, or activity
 - Worn correctly and fit well
 - Used every time you play

It's better to miss one game than the whole season.



HEADS UP CONCUSSION IN YOUTH SPORTS

A Fact Sheet for PARENTS

WHAT IS A CONCUSSION?

A concussion is a brain injury. Concussions are caused by a bump or blow to the head. Even a “ding,” “getting your bell rung,” or what seems to be a mild bump or blow to the head can be serious.

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. If your child reports any symptoms of concussion, or if you notice the symptoms yourself, seek medical attention right away.

WHAT ARE THE SIGNS AND SYMPTOMS OF A CONCUSSION?

Signs Observed by Parents or Guardians

If your child has experienced a bump or blow to the head during a game or practice, look for any of the following signs and symptoms of a concussion:

- Appears dazed or stunned
- Is confused about assignment or position
- Forgets an instruction
- 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 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”

HOW CAN YOU HELP YOUR CHILD PREVENT A CONCUSSION?

Every sport is different, but there are steps your children can take to protect themselves from concussion.

- Ensure that they follow their coach’s rules for safety and the rules of the sport.
- Encourage them to practice good sportsmanship at all times.
- Make sure they wear the right protective equipment for their activity (such as helmets, padding, shin guards, and eye and mouth guards). Protective equipment should fit properly, be well maintained, and be worn consistently and correctly.
- Learn the signs and symptoms of a concussion.

WHAT SHOULD YOU DO IF YOU THINK YOUR CHILD HAS A CONCUSSION?

- 1. Seek medical attention right away.** A health care professional will be able to decide how serious the concussion is and when it is safe for your child to return to sports.
- 2. Keep your child out of play.** Concussions take time to heal. Don’t let your child return to play until a health care professional says it’s OK. Children who return to play too soon—while the brain is still healing—risk a greater chance of having a second concussion. Second or later concussions can be very serious. They can cause permanent brain damage, affecting your child for a lifetime.
- 3. Tell your child’s coach about any recent concussion.** Coaches should know if your child had a recent concussion in ANY sport. Your child’s coach may not know about a concussion your child received in another sport or activity unless you tell the coach.

It’s better to miss one game than the whole season.



SUGGESTED GUIDELINES FOR MANAGEMENT OF CONCUSSION IN SPORTS

National Federation of State High School Associations (NFHS)
Sports Medicine Advisory Committee (SMAC)

Introduction

A concussion is a type of traumatic brain injury that interferes with normal function of the brain. It occurs when the brain is rocked back and forth or twisted inside the skull as a result of a blow to the head or body. What may appear to be only a mild jolt or blow to the head or body can result in a concussion.

The understanding of sports-related concussion by medical professionals continues to evolve. We now know that young athletes are particularly vulnerable to the effects of a concussion. Once considered little more than a “ding” on the head, it is now understood that a concussion has the potential to result in a variety of short- or long-term changes in brain function or, in rare cases, even death.

What is a concussion?

You’ve probably heard the terms “ding” and “bell-ringer.” These terms were previously used to refer to minor head injuries and thought to be a normal part of collision sports. Research has now shown us that there is no such thing as a minor brain injury. Any suspected concussion must be taken seriously. The athlete does not have to be hit directly in the head to injure the brain. Any force that is transmitted to the head in any matter may cause the brain to literally bounce around or twist within the skull, potentially resulting in a concussion.

It used to be believed that a player had to lose consciousness or be “knocked-out” to have a concussion. This is not true, as the vast majority of concussions do not involve a loss of consciousness. In fact, less than 5% of players actually lose consciousness with a concussion.

What exactly happens to the brain during a concussion is not entirely understood. It appears to be a very complex process affecting both the structure and function of the brain. The sudden movement of the brain causes stretching and tearing of brain cells, damaging the cells and creating chemical changes in the brain. Once this injury occurs,

the brain is vulnerable to further injury and very sensitive to any increased stress until it fully recovers.

Common sports injuries such as torn ligaments and broken bones are structural injuries that can be detected during an examination, or seen on x-rays or MRI. A concussion, however, is primarily an injury that interferes with how the brain works. While there is damage to brain cells, the damage is at a microscopic level and cannot be seen on MRI or CT scans. Therefore, the brain looks normal on these tests, even though it has been seriously injured.

Recognition and Management

If an athlete exhibits any signs, symptoms, or behaviors that make you suspicious that he or she may have had a concussion, that athlete must be removed from all physical activity, including sports and recreation. 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. That is the role of an appropriate health-care professional. However, everyone involved in athletics must be aware of the signs, symptoms and behaviors associated with a concussion. If you suspect that an athlete may have a concussion, then he or she must be immediately removed from all physical activity.

Signs Observed by Coaching Staff

- Appears dazed or stunned
- Is confused about assignment or position
- Forgets an instruction
- Is unsure of game, score or opponent
- Moves clumsily
- Answers questions slowly
- Loses consciousness (even briefly)
- Shows mood, behavior or personality changes
- Can't recall events prior to hit or fall
- Can't recall events after hit or fall

Symptoms Reported by Athlete

- Headaches 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” or is “feeling down”

When in doubt, sit them out!

When you suspect that a player has a concussion, follow the “Heads Up” 4-step Action Plan.

1. Remove the athlete from play.
2. Ensure that the athlete is evaluated by an appropriate health-care professional.
3. Inform the athlete’s parents or guardians about the possible concussion and give them information on concussion.
4. Keep the athlete out of play the day of the injury and until an appropriate health-care professional says he or she is symptom-free and gives the okay to return to activity.

The signs, symptoms, and behaviors associated with a concussion are not always apparent immediately after a bump, blow, or jolt to the head or body and may develop over a few hours or longer. An athlete should be closely watched following a suspected concussion and should never be left alone.

Athletes must know that they should never try to “tough out” a suspected concussion. Teammates, parents and coaches should never encourage an athlete to “play through” the symptoms of a concussion. In addition, there should never be an attribution of bravery to athletes who do play despite having concussion signs and/or symptoms. The risks of such behavior must be emphasized to all members of the team, as well as coaches and parents.

If an athlete returns to activity before being fully healed from an initial concussion, the athlete is at greater risk for a repeat concussion. A repeat concussion that occurs before the brain has a chance to recover from the first can slow recovery or increase the chance for long-term problems. In rare cases, a repeat concussion can result in severe swelling and bleeding in the brain that can be fatal.

What to do in an Emergency

Although rare, there are some situations where you will need to call 911 and activate the Emergency Medical System (EMS). The following circumstances are medical emergencies:

1. Any time an athlete has a loss of consciousness of any duration. While loss of consciousness is not required for a concussion to occur, it may indicate more serious brain injury.
2. If an athlete exhibits any of the following:
 - decreasing level of consciousness,
 - looks very drowsy or cannot be awakened,
 - if there is difficulty getting his or her attention,
 - irregularity in breathing,
 - severe or worsening headaches,
 - persistent vomiting, or

- any seizures.

Cognitive Rest

A concussion can interfere with school, work, sleep and social interactions. Many athletes who have a concussion will have difficulty in school with short- and long-term memory, concentration and organization. These problems typically last no longer than 2-3 weeks, but for some these difficulties may last for months. It is best to lessen the student's class load early on after the injury. Most students with concussion recover fully. However, returning to sports and other regular activities too quickly can prolong the recovery.

The first step in recovering from a concussion is rest. Rest is essential to help the brain heal. Students with a concussion need rest from physical and mental activities that require concentration and attention as these activities may worsen symptoms and delay recovery. Exposure to loud noises, bright lights, computers, video games, television and phones (including texting) all may worsen the symptoms of concussion. As the symptoms lessen, increased use of computers, phone, video games, etc., may be allowed, as well as a gradual progression back to full academic work.

Return to Learn

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 student'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 longer, if necessary. Decreasing the stress on the brain early on after a concussion may lessen symptoms and shorten the recovery time.

Return to Play

After suffering a concussion, **no athlete should return to play or practice on that same day.** In the past, 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.

An athlete should never be allowed to resume physical activity following a concussion until he or she is symptom free and given the approval to resume physical activity by an appropriate health-care professional.

Once an athlete no longer has signs, symptoms, or behaviors of a concussion **and is cleared to return to activity by an appropriate health-care professional**, he or she should proceed in a step-wise fashion to allow the brain to re-adjust to exercise. In most cases, the athlete will progress one step each day. The return to activity program schedule **may** proceed as below, **following medical clearance:**

Progressive Physical Activity Program (ideally under supervision)

- Step 1:* Light aerobic exercise- 5 to 10 minutes on an exercise bike or light jog; no weight lifting, resistance training, or any other exercises.
- Step 2:* Moderate aerobic exercise- 15 to 20 minutes of running at moderate intensity in the gym or on the field without a helmet or other equipment.
- Step 3:* Non-contact training drills in full uniform. May begin weight lifting, resistance training and other exercises.
- Step 4:* Full contact practice or training.
- Step 5:* Full game play.

If symptoms of a concussion reoccur, or if concussion signs and/or behaviors are observed at any time during the return-to-activity program, the athlete must discontinue all activity and be re-evaluated by his or her health-care provider.

Suggested Concussion Management

- 1. No athlete should return to play (RTP) or practice on the same day of a concussion.**
- 2. Any athlete suspected of having a concussion should be evaluated by an appropriate health-care professional that day.**
- 3. Any athlete with a concussion should be medically cleared by an appropriate health-care professional prior to resuming participation in any practice or competition.**
- 4. After medical clearance, RTP should follow a step-wise protocol with provisions for delayed RTP based upon return of any signs or symptoms.**

References:

American Medical Society for Sports Medicine position statement: concussion in sport. Harmon KG, Drezner J, Gammons M, Guskiewicz K, Halstead M, Herring S, Kutcher J, Pana A, Putukian M, Roberts W; American Medical Society for Sports Medicine. Clin J Sport Med. 2013 Jan;23(1):1-18.

McCrory P, Meeuwisse WH, Aubry M, et al. Consensus statement on concussion in sport: the 4th International Conference on Concussion in Sport held in Zurich, November 2012 J Athl Train. 2013 Jul-Aug;48(4):554-75.

Returning to Learning Following a Concussion. Halstead M, McAvoy K, Devore C, Carl R, Lee M, Logan K and Council on Sports Medicine and Fitness, and Council on School Health. *Pediatrics*, October 2013. American Academy of Pediatrics.

Additional Resources:

Brain 101 – The Concussion Playbook.

<http://brain101.orcasinc.com/5000/>

Concussion in Sports- What you need to know.

<http://www.nfhslern.com/electiveDetail.aspx?courseID=15000>

Heads Up: Concussion in High School Sports

http://www.cdc.gov/concussion/headsup/high_school.html

NFHS Sports Medicine Handbook, 4th Ed, 2011.

REAP Concussion Management Program.

<http://www.rockymountainhospitalforchildren.com/sports-medicine/concussion-management/reap-guidelines.htm>

Sport Concussion Library

<http://www.sportconcussionlibrary.com/content/concussions-101-primer-kids-and-parents>

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DISCLAIMER – NFHS Position Statements and Guidelines

The NFHS regularly distributes position statements and guidelines to promote public awareness of certain health and safety-related issues. Such information is neither exhaustive nor necessarily applicable to all circumstances or individuals, and is no substitute for consultation with appropriate health-care professionals. Statutes, codes or environmental conditions may be relevant. NFHS position statements or guidelines should be considered in conjunction with other pertinent materials when taking action or planning care. The NFHS reserves the right to rescind or modify any such document at any time.

**Louisiana High School Athletic Association
Parent and Student-Athlete Concussion Statement**

- I understand that it is my responsibility to report all injuries and illnesses to my coach, athletic trainer and/or team physician.
- I have read and understand the Concussion Fact Sheet.

After reading the Concussion Fact Sheet, I am aware of the following information:

Parent Initial	Student Initial	
_____	_____	A concussion is a brain injury, which I am responsible for reporting to my coach , athletic trainer, or team physician.
_____	_____	A concussion can affect my ability to perform everyday activities, and affect reaction time, balance, sleep, and classroom performance
_____	_____	You cannot see a concussion, but you might notice some of the symptoms right away. Other symptoms can show up hours or days after the injury.
_____	_____	If I suspect a teammate has a concussion, I am responsible for reporting the injury to my coach, athletic trainer, or team physician.
_____	_____	I will not return to play in a game or practice if I have received a blow to the head or body that results in concussion-related symptoms.
_____	_____	Following concussion the brain needs time to heal. You are much more likely to have a repeat concussion if you return to play before your symptoms resolve.
_____	_____	In rare cases, repeat concussions can cause permanent brain damage, and even death.

_____	_____
Signature of Student-Athlete	Date

Printed name of Student-Athlete	
_____	_____
Signature of Parent/Guardian	Date

Printed name of Parent/Guardian	

