



## 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](http://www.cdc.gov/ConcussionInYouthSports)  
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[www.cdc.gov/ConcussionInYouthSports](http://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.<sup>1</sup> 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.<sup>2</sup>

### 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](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*.<sup>4,5</sup> 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](http://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.***



## A QUIZ FOR COACHES, ATHLETES, AND PARENTS

*Review the "Heads Up: Concussion in Youth Sports" materials and test your knowledge of concussion.*

### Mark each of the following statements as True (T) or False (F)

1. A concussion is a brain injury.
2. Concussions can occur in any organized or unorganized recreational sport or activity.
3. You can't see a concussion and some athletes may not experience and/or report symptoms until hours or days after the injury.
4. Following a coach's rules for safety and the rules of the sport, practicing good sportsmanship at all times, and using the proper sports equipment are all ways that athletes can prevent a concussion.
5. Concussions can be caused by a fall or by a bump or blow to the head or body.
6. Concussion can happen even if the athlete hasn't been knocked out or lost consciousness.
7. Nausea, headaches, sensitivity to light or noise, and difficulty concentrating are some of the symptoms of a concussion.
8. Athletes who have a concussion should not return to play until they are symptom-free and have received approval from a doctor or health care professional.
9. A repeat concussion that occurs before the brain recovers from the first can slow recovery or increase the likelihood of having long-term problems.

**ANSWER KEY:** 1. True; 2. True; 3. True; 4. True; 5. True; 6. True; 7. True; 8. True; 9. True

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

For more information and to order additional materials **free-of-charge**, visit:

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## 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

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## 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.

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### 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.*

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### SYMPTOMS REPORTED BY ATHLETE

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Sensitivity to noise
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Concentration or memory problems
Confusion
Does not "feel right"

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## SIGNS AND SYMPTOMS

### SIGNS OBSERVED BY PARENTS OR GUARDIANS

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## 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.
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**For immediate attention, CALL 911**

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