

## Teacher's Guide

This guide includes:

- Standards
- Related Links
- Discussion Questions
- Activities for Students
- Reproducible Materials

## Standards

This guide correlates with the following National Health Education Standards:

Students will:

- Comprehend concepts related to health promotion and disease prevention to enhance health.
- Analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
- Demonstrate the ability to access valid information and products and services to enhance health.
- Demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
- Demonstrate the ability to use decision-making skills to enhance health.
- Demonstrate the ability to use goal-setting skills to enhance health.
- Demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.
- Demonstrate the ability to advocate for personal, family, and community health.

National Health Education Standards: <http://www.cdc.gov/healthyschools/sher/standards/index.htm>



## Grades 6 to 8 • Health Problems Series

# Concussions

The brain's soft tissue is cushioned by blood and spinal fluid. A blow to the head – while riding a bike or playing football, for example – can make the brain suddenly shift and knock against the skull. This can cause a concussion – a temporary change in the way the brain works. Symptoms of a concussion can last for hours, days, weeks, or longer. Students should know how to prevent concussions, how to recognize the symptoms of a concussion, and what they should do in case of a concussion.

## Related KidsHealth Links

### Articles for Kids:

#### Concussions

[KidsHealth.org/en/kids/concussion.html](http://KidsHealth.org/en/kids/concussion.html)

#### Five Ways to Avoid Sports Injuries

[KidsHealth.org/en/kids/sport-safety.html](http://KidsHealth.org/en/kids/sport-safety.html)

#### Your Brain and Nervous System

[KidsHealth.org/en/kids/brain.html](http://KidsHealth.org/en/kids/brain.html)

### Articles for Teens:

#### Concussions minisite

[TeensHealth.org/en/teens/center/concussions-ctr.html](http://TeensHealth.org/en/teens/center/concussions-ctr.html)

#### Sports and Exercise Safety

[TeensHealth.org/en/teens/sport-safety.html](http://TeensHealth.org/en/teens/sport-safety.html)

#### Bike Safety

[TeensHealth.org/en/teens/bike-safety.html](http://TeensHealth.org/en/teens/bike-safety.html)

#### Brain and Nervous System

[TeensHealth.org/en/teens/brain-nervous-system.html](http://TeensHealth.org/en/teens/brain-nervous-system.html)

### Resources for educators:

#### Concussions Special Needs Factsheet

[KidsHealth.org/en/parents/concussions-factsheet.html](http://KidsHealth.org/en/parents/concussions-factsheet.html)

#### Concussions: What Parents and Coaches Say

[KidsHealth.org/en/parents/concussion-survey.html](http://KidsHealth.org/en/parents/concussion-survey.html)

## Discussion Questions

*Note: The following questions are written in language appropriate for sharing with your students.*

1. What is a concussion? Does a person have to lose consciousness (be “knocked out”) in order to have had a concussion?
2. A person who gets a head injury should be examined by a physician. What are some of the steps a doctor will take to check the patient for a concussion? What can a CT scan reveal about a head injury?
3. Why is it important to stop playing a sport or other recreational activity if you've knocked your head or have signs of a concussion? What could happen if you keep playing?
4. Name some ways to avoid concussions.



## Activities for Students

*Note: The following activities are written in language appropriate for sharing with your students.*

### Concussions Factsheet

#### Objectives:

Students will:

- Identify the signs and symptoms of a concussion
- Write a concussion factsheet about prevention, symptoms, and treatment, including the recommendation from the U.S. Centers for Disease Control and Prevention (CDC): “Assess the situation. Be alert for signs and symptoms. Contact a health care professional.”

#### Materials:

- Computer with Internet access
- KidsHealth.org concussion and sports safety articles, CDC.gov resources ([www.CDC.gov/headsup/highschoolsports/athletes.html](http://www.CDC.gov/headsup/highschoolsports/athletes.html))
- “Concussions Factsheet” handout, or posterboard and markers

#### Class Time:

- 1 hour

#### Activity:

Today we’ll be helping out our school nurse, as well as our PE teachers and sports coaches, by creating a factsheet that informs students about concussions. After reading the concussion and sports safety-related KidsHealth.org articles, and doing further research at the website of the U.S. Centers for Disease Control and Prevention (CDC) about the ABCs of concussions, create a factsheet with brief, clear, and easy-to-read phrases or sentences that can be posted in the nurse’s office, gym, and lockers rooms. Be sure to cover:

- Basics (what a concussion is, what can cause it, how long it can last)
- Symptoms (possible signs of a concussion)
- Prevention (how to avoid getting a concussion)
- Treatment (what to do if you think you or a classmate might have had a concussion)

#### Extension:

Have your students listen to this CDC podcast for kids:

“A Bump on the Head” [www2c.cdc.gov/podcasts/player.asp?f=5539757](http://www2c.cdc.gov/podcasts/player.asp?f=5539757)

Then, discuss ways your class can create a public service announcement about concussions for elementary students. The PSA can be posters, brief audio recordings or podcasts for morning announcements (see “Baseline Testing Podcast” on the next page), videos for school assemblies, or presentations to elementary classes.



## Baseline Testing Podcast

### Objectives:

Students will:

- Learn about the importance of baseline (pre-injury) testing for student-athletes

### Materials:

- Computer with Internet access, microphone (USB microphone is preferable to a computer's built-in microphone; contact your school's IT specialist for more information)
- "Baseline Testing Podcast" handout and pens or pencils, computer word-processing program
- KidsHealth.org articles, CDC.gov resources (such as [www.cdc.gov/headsup/basics/baseline\\_testing.html](http://www.cdc.gov/headsup/basics/baseline_testing.html) and [www.cdc.gov/headsup/highschoolsports/athletes.html](http://www.cdc.gov/headsup/highschoolsports/athletes.html))

### Class Time:

- 2 hours (can be done in two parts)

### Activity:

[Note to teacher: If necessary, arrange to get help from your school IT specialist to create the podcasts and upload one of them to the school website.] To raise awareness about concussions among student-athletes, we're going to create podcasts that explain why kids and teens who play sports need to get concussion baseline testing before the season begins. The podcast should cover how testing a student's balance and brain function before an injury (also called the student's baseline) can be compared with follow-up test results after a head injury. By comparing baseline and post-injury results, an expert can tell whether a student may have had a concussion. Working in small groups, we'll research concussions at KidsHealth.org and CDC.gov. When you have the facts, work with your group to write a podcast script that provides accurate and detailed information about concussions and the importance of baseline testing. Make sure it's appealing to kids and teens. Then we'll edit the script and record the podcast. I'll choose one to upload, with a PDF of the transcript, to our school website.

### Extension:

Have students write a list of questions and record an interview with a health care professional with expertise in concussions (try contacting a local physician or the public relations department of a nearby hospital). Edit the podcast to include parts or all of the interview, or create a new podcast based on the interview.

## Reproducible Materials

### Handout: Concussions Factsheet

[KidsHealth.org/classroom/6to8/problems/conditions/concussions\\_handout1.pdf](http://KidsHealth.org/classroom/6to8/problems/conditions/concussions_handout1.pdf)

### Handout: Baseline Testing Podcast

[KidsHealth.org/classroom/6to8/problems/conditions/concussions\\_handout2.pdf](http://KidsHealth.org/classroom/6to8/problems/conditions/concussions_handout2.pdf)

### Quiz: Concussions

[KidsHealth.org/classroom/6to8/problems/conditions/concussions\\_quiz.pdf](http://KidsHealth.org/classroom/6to8/problems/conditions/concussions_quiz.pdf)

### Quiz Answers: Concussions

[KidsHealth.org/classroom/6to8/problems/conditions/concussions\\_quiz\\_answers.pdf](http://KidsHealth.org/classroom/6to8/problems/conditions/concussions_quiz_answers.pdf)



Name:

Date:

# Concussions Factsheet

**Basics**

**Prevention**

**Symptoms**

**Treatment**





Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Quiz

1. Name at least four symptoms of a concussion:

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2. Which of the following is *not* a good way to prevent sports injuries?

- a) Wearing protective gear, such as helmets and protective pads
- b) Warming up before play and cooling down afterward
- c) “Playing through” a minor pain in your body to see if it will go away on its own
- d) Obeying the rules of the game
- e) Watching out for others

3. List two tips about bicycle helmets:

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4. Your brain has many different parts that work together. Name at least three major parts of the brain:

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5. The biggest part of the brain, which does your thinking and holds both short-term and long-term memory, is called the \_\_\_\_\_.

6. True or false: People who have head injuries can have long-term or permanent brain damage if they try to return to practice or play too quickly after a concussion.

7. True or false: If you don’t lose consciousness, you don’t have a concussion.

8. True or false: If you (or a friend or teammate) think you might have had a concussion, you should tell a coach or parent immediately.

9. Student-athletes should get \_\_\_\_\_ before their sports seasons start.

- a) haircuts
- b) professional sports contracts
- c) sneaker advertising deals
- b) concussion baseline testing

10. When it comes to a head injury in sports, the best thing to remember is:

- a) “No pain, no gain!”
- b) “When in doubt, sit out!”



## Quiz Answer Key

1. Name at least four symptoms of a concussion:

Any four of the following: seeing stars and feeling dazed, dizzy, or lightheaded; memory loss, such as trouble remembering things that happened right before and after the injury; nausea or vomiting; headaches; blurred vision and sensitivity to light; slurred speech or saying things that don't make sense; difficulty concentrating, thinking, or making decisions; difficulty with coordination or balance (like being unable to catch a ball or other easy tasks); feeling anxious or irritable for no apparent reason; feeling overly tired.

2. Which of the following is **not** a good way to prevent sports injuries?

- a) Wearing protective gear, such as helmets and protective pads
- b) Warming up before play and cooling down afterward
- c) "Playing through" a minor pain in your body to see if it will go away on its own
- d) Obeying the rules of the game
- e) Watching out for others

3. List two tips about bicycle helmets:

Any two of the following: the straps should always be fastened when you are riding; the helmet should never be worn over a bandana, baseball cap, or anything else that could cause it to shift in a crash; it should sit level and firmly but comfortably on your head and not be tilted forward, backward, or sideways; it should be replaced if it takes a serious hit, even if it looks undamaged.

4. Your brain has many different parts that work together. Name at least three major parts of the brain:

Any three of the following: cerebrum, cerebellum, brain stem, pituitary gland, hypothalamus

5. The biggest part of the brain, which does your thinking and holds both short-term and long-term memory, is called the cerebrum.

6. True or false: People who have head injuries can have long-term or permanent brain damage if they try to return to practice or play too quickly after a concussion.

7. True or false: If you don't lose consciousness, you don't have a concussion.

8. True or false: If you (or a friend or teammate) think you might have had a concussion, you should tell a coach or parent immediately.

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- a) haircuts
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- c) sneaker advertising deals
- b) concussion baseline testing

10. When it comes to a head injury in sports, the best thing to remember is:

- a) "No pain, no gain!"
- b) "When in doubt, sit out!"