



CDC HEADS UP
SAFE BRAIN. STRONGER FUTURE.

A FACT SHEET FOR School Nurses

This fact sheet will help school nurses protect students from concussion or other serious brain injury; know how to recognize a concussion and what to do if one occurs; support students who return to school while recovering from a concussion; and provide steps to prevent concussion in school.

The facts:

- All concussions are serious.
- Concussions can have a more serious effect on a young, developing brain.
- Most people who have concussions do not lose consciousness after the injury.
- Quick and correct response to concussions can help recovery and prevent further injury.

What is a concussion?

A concussion is a type of traumatic brain injury caused by a bump, blow, or jolt to the head or by a hit to the body that causes the head and brain to move quickly back and forth. This fast movement can cause the brain to bounce or twist within the skull, creating chemical changes in the brain and sometimes stretching and damaging brain cells.

In schools, concussions most commonly happen during activities like physical education (PE) class, playground time, or school-based sports activities. Students may also get a concussion when doing activities outside of school. For example, a student may get a concussion from a fall at home or a motor vehicle crash. No matter where a concussion occurs, it is important to properly recognize and respond to a concussion to prevent further injury and to help with recovery.

Recognizing a concussion

Ask the injured student or people who saw the injury whether there:

1. Was a bump, blow, or jolt to the head or body, and
2. Were any of the concussion signs or symptoms listed below.

Some students may not experience or report symptoms until hours or days after the injury. School nurses should check in with the student and their teachers at least once during the school day for the first two weeks back at school to see how the student is feeling.

Multiple concussions

Athletes who have had a concussion have a higher chance of getting another concussion. A repeat concussion can lead to more severe symptoms and a longer recovery.

Possible signs and symptoms

Signs (things observed by you)

- Seems confused
- Answers questions slowly
- Repeats questions
- Can't remember events before or after the hit, bump, or fall
- Loses consciousness (even for a moment)
- Has behavior or personality changes

Symptoms (things reported by the student or a witness to the injury)



Thinking/Remembering:

- Trouble thinking clearly
- Trouble concentrating
- Problems with short- or long-term memory
- Feeling slowed down
- Feeling foggy or groggy



Emotional:

- Irritable
- Sad
- More emotional than usual
- Nervous or anxious



Physical:

- Headache
- Nausea or vomiting
- Dizziness or balance problems
- Feeling tired
- Vision problems
- Bothered by light or noise
- Numbness or tingling
- Does not "feel right"



Sleep*:

- Sleeps less than usual
- Sleeps more than usual
- Trouble falling asleep

**Ask about sleep symptoms only if the injury happened the day before.*

Signs of a more serious brain injury

In rare cases, a concussion can lead to edema (brain swelling), permanent brain damage, and even death. Call 9-1-1 or take the student to an emergency department right away if a student develops:

- A headache that gets worse and does not go away;
- Significant nausea or repeated vomiting;
- Unusual behavior, increased confusion, restlessness, or agitation;
- Drowsiness or inability to wake up;
- Slurred speech, weakness, numbness, or decreased coordination;
- Convulsions or seizures (shaking or twitching); or
- Loss of consciousness (passing out)

What you can do

When a student is sent to see you after a bump, blow, or jolt to the head or body:

1. Observe the student for signs and symptoms of concussion for a minimum of 30 minutes.
2. Ask people who saw the injury occur about how the injury happened and any concussion signs they observed.
3. Complete the *Concussion Signs and Symptoms Checklist* (found at [cdc.gov/headsup/schools/nurses.html](https://www.cdc.gov/headsup/schools/nurses.html)).
4. Notify the student's parent(s) or guardian(s) that their child had a head injury.

If the student has concussion signs or symptoms:

- Tell the parent(s) or guardian(s) that the student needs to see a healthcare provider experienced in concussion management.
- Give the parent(s) or guardian(s) a copy of the completed *Concussion Signs and Symptoms Checklist* for the healthcare provider to review.
- Ask for written guidance from the student's healthcare provider about when the student can return to school and to physical activity.

If the student does not have concussion signs or symptoms:

- Have the student return to class, but do not allow him or her to return to sports or recreational activities on the same day of the injury.
- Send a copy of the completed *Concussion Signs and Symptoms Checklist* home with the student for his or her parent(s) or guardian(s) to review. Ask the parent(s) or guardian(s) to continue to observe the student for any changes.
- Tell the parent(s) or guardian(s) that if concussion signs or symptoms appear, the student should be seen right away by a healthcare provider with experience in concussion management.

Children and teens with a concussion should NEVER return to sports or recreation activities on the same day they were injured. Be sure to remind coaches and others that the student should not return to PE class, playground time, or school-based sports activities until the healthcare provider who is managing his or her concussion gives permission to do so.

Recommendation from CDC's Pediatric mTBI Guideline: Recovery

- Students recovering from concussion should receive customized instructions from their healthcare provider for returning to activities based on their symptoms.
- Most students should take no more than 2-3 days of rest before gradually returning to non-sports activities.

Helping students return to school

Most students can return to school within a few days of their injury. School nurses, healthcare providers, parents, and teachers can work together to support a student recovering from a concussion. For most students, only short-term changes or support services are needed as they recover. Before choosing the changes you will make:

- Work with the student's healthcare provider, teacher, and parents to identify the type and length of activities the student can handle. Create a plan with the student's teachers for addressing any missed schoolwork.
- Tailor the plan to each student. Take into account the student's age, types of symptoms, pre-injury academic performance, and emotional state.
- Coordinate classroom accommodations with your student's teachers and other school professionals so that the student can have the same level of support throughout the school day.

If symptoms do not worsen during an activity, then this activity is OK for the student. If symptoms do worsen, the student should cut back on time spent engaging in that activity and may need additional support at school. If there are any symptoms that concern you or seem to be getting worse, notify the student's parent(s) or guardian(s) that the student should be seen by a healthcare provider as soon as possible.

Recommendation from CDC's Pediatric mTBI Guideline: Returning to school

To help students returning to school after a concussion:

- Medical and school-based teams should counsel the student and family about the process of gradually increasing the duration and intensity of academic activities as tolerated, with the goal of increasing participation without significantly exacerbating symptoms.
- The student, family, healthcare provider, and school teams should monitor symptoms and academic progress to decide together the modifications that are needed to maintain an academic workload without making symptoms worse.
- School teams should monitor and adjust educational supports until the student's academic performance has returned to pre-injury levels.

What to watch for

School professionals should watch for students who have problems with:

- Paying attention,
- Remembering or learning new information,
- Inappropriate or impulsive behavior during class,
- Irritability,
- Handling stress, and/or
- Organizing tasks.

Students who return to school after a concussion may need to:

- Take rest breaks;
- Spend fewer hours at school;
- Be given more time to take tests or complete assignments;
- Receive help with schoolwork; and/or
- Reduce time spent on the computer, reading, or writing.

As the student's symptoms decrease, you can gradually remove these changes.

Offer support and encouragement

A student may feel frustrated, sad, angry, or lonely while recovering from a concussion. Talk with the student and offer support and encouragement. It is important to allow students recovering from a concussion to stay in touch with friends during their recovery and to get emotional support from family and other loved ones.

When symptoms are ongoing

Most students with a concussion will feel better quickly and have a good recovery. But for some, concussion symptoms can last for months or longer. If a student already had a medical condition at the time of the concussion (like migraine headaches), it may take longer to recover. Anxiety and depression may also make it harder for the student to adjust.

A variety of formal support services may be available to help students who are experiencing a longer or more difficult recovery. These support services can vary widely among states and school districts. The type of support will differ depending on the specific needs of each student. Support services may include the following:

- Response to Intervention (RTI) protocol
- Section 504 plan
- Individualized Education Plan (IEP)

Be sure to check what support services are available in your school or district and whether your school or district has a policy to help students recovering from a concussion succeed when they return to school. If not, think about working with your school administration to create one.

Recommendation from CDC's Pediatric mTBI Guideline: Prolonged symptoms

For students with prolonged symptoms and academic difficulties:

- School-based teams should determine the student's need for additional educational supports, including those described under federal statutes.
- Healthcare providers should refer the child for a formal evaluation by a specialist in pediatric mTBI.

Prevent and prepare for concussion

Here are some steps you can take to prevent concussion in your school and ensure the best outcome for your students:

Prepare a concussion action plan

Have an action plan in place before the start of the school year. This plan can be included in your school or district's concussion policy. To assist with this, the Centers for Disease Control and Prevention developed an [online action plan](#) for sports and recreation activities. Be sure that appropriate school and athletic staff know about the plan and have been trained to use it.

Educate parents, teachers, coaches, and students about concussion

Parents, teachers, coaches, and other students may be the first to notice when a student is not acting normally. Encourage them to:

- Learn about the potential long-term effects of concussion and the dangers of returning to activity too soon;
- Look out for the signs and symptoms of concussion; and
- Send students to talk with you if they observe, or even think, that a concussion happened.

Be aware of repeat concussions

Students who have had a previous concussion have a greater chance of sustaining another one. Students who get a repeat concussion may have a longer recovery or worsening symptoms. If a student sustains a repeat concussion before the previous one has healed—usually within a short period of time (hours, days, or weeks)—it can also slow recovery or increase the likelihood of having long-term problems. It can even be fatal.



Create safe school environments

The best way to protect students from concussions is to prevent them from happening in the first place. Talk with school staff and administrators, and encourage them to keep the physical space safe by:

- Keeping stairs and hallways clear of clutter,
- Securing rugs to the floor,
- Checking the surfaces of all areas where students are physically active, and
- Having proper supervision of students.

Monitor the health of your student athletes

Make sure that your athletes pass a preseason medical exam and are in good condition to participate in sports. During a preseason exam, healthcare providers can identify students at increased risk for concussion by asking about their concussion history and other medical conditions that may affect concussion recovery (such as learning difficulties and headache disorders).

The preseason exam is also an opportunity to discuss concussion prevention tips. Some schools conduct preseason baseline testing (or neurocognitive tests) as part of an overall preseason medical exam. These tests assess brain function, such as learning and memory skills, ability to pay attention or concentrate, and how quickly a student can think and solve problems. If an athlete has a possible concussion later in the season, these tests may help identify the effects of the injury.

It may be useful to keep track of athletes who sustain concussions during the school year. This will help you to monitor injured athletes who participate in multiple sports and to communicate with coaches about any concussions sustained prior to the start of a new sports season.

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To learn more,
go to cdc.gov/HEADSUP

