



## A Nurse's Guide to Sports Concussions

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Written by Julia Tortorice



Any nurse that regularly interacts with student-athletes needs to be aware of how to identify a concussion. School nurses are especially important when it comes to evaluating and treating head injuries that occur on the playing field. Student-athletes are at risk for many injuries. However, a broken arm or sprained ankle typically heals quickly. An untreated concussion carries lifelong risks for the student. Part of properly protecting students involves continuing education for nurses so that they know how to best care for their students. This includes how to spot and treat concussions.

#### **Sports-Related Concussions**

How often do concussions occur among high school students? In 2017, two and a half million high schoolers said they had suffered a concussion due to school sports or other school-related physical activity during the last year. Out of that group, around 5% had experienced more than one concussion. Kids who participated in team sports were the most likely to report they had experienced multiple concussions. Kids on sports teams had an almost 17% chance of having had a concussion. Kids on two teams had an almost 23% chance. Kids on more than two teams had a slightly more than 30% chance of experiencing a concussion.

Some sports are more dangerous for athletes than others. Researchers studied 2,004 concussions suffered by high school athletes across almost 150 different schools. Football players represented 1,020 of those concussions. Boys wrestlers only reported 137. That was the next highest sport. Girls' basketball had 128. These numbers show why it's important that athletes be carefully watched and evaluated.

- Sports-Related Concussions (PDF)
- Sport-Related Concussion: Evaluation, Treatment, and Future Directions
- Concussion in Athletes
- · Sports-Related Head Injury
- Concussions in Sports
- · Concussions Facts and Statistics

- Self-Reported Concussions from Playing a Sport or Being Physically Active Among High School Students - United States, 2017
- · Which Youth Sports Cause the Most Concussions?

### **Concussion Signs and Symptoms**

Concussion symptoms can be very obvious or very subtle and the range of symptoms is one reason why diagnosing concussions can be difficult. Very few people with a concussion pass out. Slightly more might vomit after the injury. Most symptoms are much more difficult to spot. The student might seem out of sorts. They might zone out when spoken to, and grades might start to slip as the student struggles with subjects and concepts they previously had problems understanding. Education for nurses should include how to spot very subtle symptoms of concussions in children and adolescents.

- · Concussion: Symptoms and Causes
- What is a Concussion?
- · Concussion Symptoms: Causes, How Long They Last, and When to Get Help
- Symptoms of Mild TBI and Concussion
- · Traumatic Brain Injury
- 8 Common Misconceptions About Concussions
- Top 3 Signs of a Concussion
- · Diagnosing Concussion
- NFL Concussion Diagnosis and Management Protocol (PDF)

#### **Concussion Treatment**



Medical professionals, school staff, families, and the injured student all have a hand in treating and managing a concussion. The school nurse helps coordinate between the healthcare professionals, coaches, and teachers. The nurse regularly assesses the student's progress and talks to the student about their symptoms and feelings. The school social worker or therapist might regularly meet with the child to evaluate their emotional condition. Educators should work with the nurse and the parents to modify expectations and school work as needed. Teachers should also watch for new symptoms and report them immediately. The school's athletic staff is responsible for the student's safe and appropriate return to the sport. The family should support the child and advocate for their best interests. The student's medical care team monitors their progress and created the timeline and protocol for the student's return to normal activity. The medical staff must clear the student before the student can return to any sport.

- · Concussion: A New Approach to Treatment
- Concussion Treatment
- · Concussion Treatment and Recovery
- Concussion Video Series
- · Concussion Awareness, Diagnosis & Treatment
- Supporting an Athlete's Recovery from a Concussion
- · Sports and Concussions
- Mind, Body, and Sport: Post-Concussion Syndrome

# Concussion Helmets: How Head Protection Has Changed with Healthcare Advances



High school, college, and professional football players experience concussions at higher rates than any other athletes playing any other sports. There's been a big push to protect both the children and adults who play the game to protect them from concussions in the present and longer-term neurological issues in the future. New helmets are a big part of this initiative. It's also important to stress to coaches and student-athletes how important it is to always correctly wear protective. Education for nurses should address how to communicate this knowledge with all stakeholders.

Helmets have changed with advancing technology all through football's history. At the turn of the twentieth century, they were simply soft leather caps. By the 1920s helmets had evolved into hardened leather headgear. The first plastic helmet was introduced in 1939, but it wasn't until 1955 that the first helmet with a face bar was used. Helmets with inner padding around the skull came out in 1971, just four years before the first helmet that featured a full-face mask. The first helmet designed to protect players against concussions premiered in 2002. Since 2014 people have worked to create a better, more protective helmet.

- · Football Helmets and Concussion: Equaling the Playing Field
- New Helmet Design Can Deal with Sports' Twists and Turns
- NFL Concussion Prevention: Could New Helmet Save Football?
- Headgear Reduces Concussions in High School Girls
- · Study Showing Helmet Design Can Reduce Concussion Risk Leaves Many Questions
- Inadequate Helmet Fit Increases Concussion Severity In High School Athletes
- Why Is It So Hard to Stop Sports Concussions?
- There's More Than Rules in Regulating Concussions