

Concussions Among High School Athletes Reported at 15%

Self-reports by students suggest many concussions are missed, says the CDC

- by Judy George, Contributing Writer, MedPage TodayJune 21, 2018

About 15% of the U.S. high school population -- 2.5 million students -- self-reported having at least one concussion related to sports or physical activity over a 1-year period, according to the CDC.

This prevalence is higher than [emergency department](#) estimates (622.5 visits per 100,000 population ages 10-14) and [athletic trainer reports](#) (1.8 per 100 high school and college athletes for an average season), according to the CDC's Lara DePadilla, PhD, and co-authors.

"Emergency department data miss concussions treated elsewhere, and athletic trainer reports miss concussions sustained outside of school-based sports; both sources miss medically untreated concussions," the researchers wrote in [Morbidity and Mortality Weekly Report](#).

Overall, 9.1% of high school students reported having one concussion and 6.0% reported having two or more concussions in the 12-month period.

Concussion prevalence was significantly higher among males and among all students who played team sports. Concussion odds also grew with the number of team sports played.

The findings are part of the [Youth Risk Behavior Survey](#) (YRBS), a cross-sectional study of 14,765 public and private school students in grades 9 through 12. In 2017, the CDC included a question about concussions on the national YRBS questionnaire for the first time.

The survey results have clear limitations -- the concussions were reported by students and not validated through medical record review -- but point toward the need to expand education about concussion prevention and management, DePadilla and colleagues observed.

But while increased awareness might result in higher rates of reported concussions, underreporting among student athletes remains a concern. A recent study found that 40% of high school athletes who experienced concussions said their [coach was unaware](#) of their symptoms.

"Students might not always recognize or remember that they have experienced a concussion, or they might not want to report having experienced a concussion," DePadilla and co-authors noted. "In this study, the opportunity to anonymously self-report a concussion, without negative consequences such as a loss of playing time, might have aided in including concussions missed by other data sources."

However, this survey might overestimate the prevalence of sports-related concussion if students reported injuries that occurred before the 12-month reference period, or if they mistakenly thought they had a concussion because symptoms like headache occurred.

In 2013, a [National Academies \(Institute of Medicine and National Research Council\) report](#) concluded that better estimates of youth sports concussions were needed. In response, the CDC is working toward developing a [National Concussion Surveillance System](#).

The authors reported no conflicts of interest.

- **Primary Source**

Morbidity and Mortality Weekly Report

Source Reference: [DePadilla L, et al "Self-reported concussions from playing a sport or being physically active among high school students -- United States, 2017" MMWR Morb Mortal Wkly Rep 2018; 67: 677-696.](#)

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