

MEETING NEWS


 American Orthopaedic Society for Sports Medicine  
Annual Meeting Review session

# has ended. High school football concussion risk greater for young athletes and on turf

August 25, 2019



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BOSTON — Concussion risk in high school football is greater for younger players and on practices on turf-based surfaces, according to a study presented at the American Orthopaedic Society for Sports Medicine Annual Meeting. The epidemiological study examined high school football concussion data in male players aged 14 to 18 years at 1,999 U.S. high schools. **Scott Burkhart, PsyD**, and colleagues collected data between 2012 to 2017 using the Rank One Health Injury Surveillance Database, a software used for mandatory and voluntary student-athlete injury documentation.

“While concussion prevention efforts like education and safe tackling appear to be working in high school football, it may be advantageous to provide more sports medicine coverage at more vulnerable time points like freshman and JV football,” Burkhart told *Orthopedics Today*. “Further, data supports reducing practice exposures on turf-based surfaces may lead to lower concussion incidence.”

The study included nearly one million male athletes who played football. Researchers recorded a total of 14,103 concussions in this group, accounting for 6% of all injuries in high school sports and making this the largest epidemiological high school football concussion study to date.

Rates of injury decreased from 2012 to 2016 in both practices and games. Burkhart noted injury proportion ratios decreased by year from 2012 to 2016 with an increase in 2017. He added that more concussions occurred in games (51.8%) than during practices (48.2%).

“No matter how we looked at this – whether it was injury proportion rates, overall incidence rates or risk ratios – you can see significant difference from games to practices,” he said at a presentation at the ASSOM meeting.

Turf outweighed all other mechanisms of injury, including helmet-to-helmet and