

# Helmet fit critical to preventing concussion, say researchers

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Concussions and the issues that can occur following one, continue to be a serious problem for football players. However, one simple game strategy: proper helmet fit, may be one of the easiest game winners for prevention, say researchers presenting their study at the American Orthopaedic Society for Sports Medicine's Specialty Day in San Francisco.

"Athletes wearing properly fitted helmets, as reported by team certified athletic trainers, were 82% less likely to experience [loss of consciousness](#) (LOC) with a concussion. Helmet age and condition, (new vs. reconditioned) were not significant predictors of amnesia or LOC," said one of the paper's authors, Joseph Torg, MD of Temple University in Philadelphia, PA.

Researchers looked at reports from 1,398 concussion events collected by the National High School Sports-Related Injury Surveillance System using High School RIOTM. They used loss of consciousness (LOC) and amnesia as end points to determine concussion severity. Out of those studied, 44 individuals experienced LOC and 267 experienced some form of amnesia. Odds ratios for LOC were calculated based on helmet fit, inner helmet padding systems, athlete age and helmet condition (new vs. reconditioned.)

There is no definitive data that advanced football helmet technology and design is more protective against concussion or intracranial hemorrhage. In fact, current data indicates that helmet fit and air bladder lining may

be associated with both [concussion](#) and intracranial [hemorrhage](#).

"As we look at preventing concussions and minimizing risk, it is important to realize that it is the responsibility of the athletic director and head football coach to have policies that: Insure that each player has a properly fitted helmet and that a responsible adult supervises and oversees proper helmet air bladder inflation on a weekly basis," said Torg.

Provided by American Orthopaedic Society for Sports Medicine

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