



POSITION STATEMENT REGARDING MOUTHGUARD USE IN SPORTS

**National Federation of State High School Associations (NFHS)
Sports Medicine Advisory Committee (SMAC)**

The NFHS mandates the use of mouthguards in football, field hockey, ice hockey, lacrosse and wrestling (for wrestlers wearing braces). Multiple studies by the American Dental Association, the American Academy of Pediatric Dentistry, and the American Academy for Sports Dentistry have shown a significant reduction of orofacial injuries with the use of a properly fitted mouthguard. The Sports Medicine Advisory Committee (SMAC) of the NFHS recommends that athletes consider the use of a properly fitted, unaltered mouthguard for participation in any sport that has the potential for orofacial injury from body or playing apparatus (stick, bat, ball, etc) contact. Research currently does not support the theory that the use of a mouthguard minimizes the risk or severity of a concussion.

A properly fitted mouthguard should separate the biting surfaces of the teeth, protect the lips, gums and teeth, and fully cover all of the upper teeth. Mouthguards which cover the lower, rather than the upper, teeth are preferred if the lower row of teeth protrudes farther out (are the leading edge) than the upper teeth. It is strongly recommended that mouthguards be properly fitted and not be altered in any manner which decreases the effective protection. Proper fit is insured by: (1) being constructed from a model made from an impression of the individual's teeth or (2) being constructed and fitted to the individual by impressing the teeth into the mouthguard itself.

A properly fitted and unaltered mouthguard has been shown to not impede communication, breathing, or create any hazards to the airway or oral cavity. Types of mouthguards which comply with NFHS rules and the relative advantages and disadvantages of each are listed below:

<u>TYPE OF MOUTHGUARD</u>	<u>ADVANTAGES</u>	<u>DISADVANTAGES</u>
Mouth-formed	Inexpensive Form-fitted	Deteriorates over time May not last entire season Pressure on cheeks and gums if not fitted well
Custom	Accurate fit Comfortable May offer superior protection	Most expensive Several trips to dentist may be required
Stock	Easily fits over braces	Poor fit and easily dislodged Can disrupt normal breathing and make intelligible speech very difficult

References:

American Dental Association. Using mouthguards to reduce the incidence and severity of sports-related oral injuries. ADA Council on Access, Prevention and Interprofessional Relations. *Journal of the American Dental Association* 2006;137(12):1712-20.

Collins CL, McKenzie LB, Ferketich AK, Andridge R, Xiang H, Comstock RD. Dental injuries sustained by high school athletes in the United States, from 2008/2009 through 2013/2014 academic years. *Dental traumatology*. 2016 Apr;32(2):121-7.

Daneshvar, DH Baugh CM, Nowinski CJ, et al. Helmets and mouth guards: the role of personal equipment in preventing sports-related concussions. *Clinics in Sports Medicine* 2011;30:145-163.

Ferreira GB, Guimaraes LS, Fernandes CP, Dias RB, Coto NP, Antunes LA, Antunes LS. Is there enough evidence that mouthguards do not affect athletic performance? A systematic literature review. *International dental journal*. 2019 Feb 1;69(1):25-34.

Green JI. The role of mouthguards in preventing and reducing sports-related trauma. *Primary dental journal*. 2017 Jun;6(2):27-34.

Lloyd JD, Nakamura WS, Maeda Y, et al. Mouthguards and their use in sports: Report of the 1st International Sports Dentistry Workshop, 2016. *Dent Traumatol*. 2017 Dec;33(6):421-426.

Mills S, Canal E. Prevention of athletic dental injuries: the mouthguard. *Modern Sports Dentistry*. 2018:111-33.

Rowson S, Bland ML, Campolettano ET, et. al. Biomechanical Perspectives on Concussion in Sport. *Sports Med Arthrosc Rev*. 2016 Sep;24(3):100-7.

Spinas E, Mameli A, Gianetti L. Traumatic Dental Injuries Resulting from Sports Activities; Immediate Treatment and Five Years Follow-Up: An Observational Study. *Open Dent J*. 2018 Jan 15;12:1-10.

Young EJ, Macias CR, Stephens L. Common dental injury management in athletes. *Sports health*. 2015 May;7(3):250-5.

October 2025

October 2022

October 2018

October 2014

October 2011

October 2008

DISCLAIMER – NFHS Position Statements and Guidelines

The NFHS regularly distributes position statements and guidelines to promote public awareness of certain health and safety-related issues. Such information is neither exhaustive nor necessarily applicable to all circumstances or individuals and is no substitute for consultation with appropriate health-care professionals. Statutes, codes or environmental conditions may be relevant. NFHS position statements or guidelines should be considered in conjunction with other pertinent materials when taking action or planning care. The NFHS reserves the right to rescind or modify any such document at any time.