



**USA Lacrosse Sports Science and Safety Committee  
Position Statement on the Use of Mouthguards in Lacrosse**

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**USA Lacrosse Sports Science and Safety Committee recommend the following:**

1. Properly fitted and properly worn mouthguards should be used by lacrosse players at any level during all practices and games.
2. Advise that mouthguards should meet the guidelines for proper fit as outlined by the Academy for Sports Dentistry.  
<https://www.academyforsportsdentistry.org/athletes#mouthguards>
3. Educate athletes and parents on the importance of a properly fitted and properly worn mouthguard.
4. Strongly encourage coaches, officials, and athletic trainers to perform routine equipment checks to ensure proper mouthguard use.

**Background:**

Several studies by the American Academy of Pediatric Dentistry, American Academy for Sports Dentistry, American Dental Association and the British Journal of Sports Medicine have shown a reduction of orofacial injuries with mouthguard use. In sports that do not require mouthguards (basketball, baseball, soccer) dental injuries comprise 3%-38% of sporting related injury (1). Additionally, sporting activities contribute to nearly one third of dental and orofacial injury in youth (2). The degree of risk varies significantly between the type and level of sport. In a study involving high school lacrosse players, it was estimated that 32% of injuries in competition were categorized as orofacial injuries (3). A systematic review completed in 2019 showed that mouthguards reduced the risk of orofacial injuries, particularly in sports where there is increased risk of injury to the face and mouth (2). When properly fitted and properly worn mouthguards cover and protect the teeth, gums, and other soft tissue structures, as well as redistribute and absorb forces generated from impact (4). Redistribution of forces helps to protect against tooth or bone fractures, avulsion injuries, tooth displacement, soft tissue lacerations and bruising, jaw dislocations and endodontic injuries (5, 6). Children and adolescents who have orthodontia, such as braces, are at increased risk for soft tissue injury, making mouthguards a critical piece of protective equipment.



### Types of Mouthguards:

Given the increased risk for orofacial injury from contact with another body or equipment (ball, lacrosse stick, helmet, etc.), the USA Lacrosse Sports Science and Safety Committee recommends mouthguards be properly fitted (adapted to the athlete’s individual oral structures) and worn appropriately during practices and games. An ideal mouth guard covers and fits securely against the teeth on one arch, prevents destructive contact between the maxillary and mandibular dentition, and remains securely and safely in the mouth with a high degree of comfort during sports play. Studies consistently show that airway and oxygen intake are not compromised with *properly fitted and properly worn mouthguards* and their use does not impede communication (8). The box below shows the general types of mouthguards available and the advantages and disadvantages of each.

MOUTHGUARD	ADVANTAGES	DISADVANTAGES
<b>Custom Made</b>	<ul style="list-style-type: none"> <li>Most protection</li> <li>Most comfortable</li> <li>Improved airway</li> <li>Most effective</li> </ul>	<ul style="list-style-type: none"> <li>Most expensive</li> <li>Multiple trips to dentist may be required</li> </ul>
<b>Mouth-formed (boil and bite)</b>	<ul style="list-style-type: none"> <li>Easily accessible</li> <li>Inexpensive</li> <li>Form-fitted</li> <li>Removable strap</li> </ul>	<ul style="list-style-type: none"> <li>Deteriorates over time</li> <li>May not last entire season</li> <li>Pressure on cheeks and gums</li> <li>Potential airway obstruction if not properly fitted</li> </ul>
<b>Stock (ready-made)</b>	<ul style="list-style-type: none"> <li>Easily accessible</li> <li>Most affordable</li> <li>Fits over braces</li> </ul>	<ul style="list-style-type: none"> <li>Does not fit as well with limited range of sizes</li> <li>Easily dislodges</li> <li>Makes intelligible speech difficult</li> <li>Potential airway obstruction if not properly fitted</li> <li>Least effective</li> <li>Poor compliance</li> </ul>

### Education:

Properly educating athletes about the benefits of mouthguard use is important. It is important to highlight that a properly fitted mouthguard does not afford any protection when not worn in the appropriate manner. For younger athletes whose mouths are continually developing, it is important to routinely inspect for fit and retention to accommodate for tooth growth, alignment changes and eruption. Noncompliance and/or alterations to mouthguards occur more frequently with improperly fitting or non-fitted mouthguards. The use of improperly fitted mouth guards are less comfortable and often inhibit communication during sports participation and should be checked regularly throughout the season to ensure a proper fit if a stock mouthguard is used.



The Sport Science & Safety Committee recommend that coaches, referees and parents of athletes require their athletes to properly fit and properly wear mouthguards to avoid injury, pain, disfigurement and potential costly financial burden dealing with damaged teeth and/or an injured mouth.

### **Mouthguards and Concussion:**

There is currently no convincing evidence regarding mouthguard use and the reduction in the incidence of concussion. While some studies have attempted to show a reduction in concussive impact or forces when using a mouthguard, to date, this association remains unclear. Further studies are needed to investigate the use of mouthguards and the ability to impact the severity of mild traumatic brain injury or sports-related concussion (9).

### **Summary:**

Mouthguards should be considered an essential piece of protective equipment and used to prevent or reduce the incidence of dental/orofacial trauma in lacrosse. Approximately 1/3 of injuries in lacrosse are dental and/or mouth related, highlighting the importance of proper mouthguard usage at all times when practicing and playing. Assuring the mouthguard is properly fitted and properly worn is imperative to maximize the protective effects of mouthguards in lacrosse.

### **References:**

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