

WELLNESS UPDATE 2002, #4

MOUTH GUARDS

In the sport of football, it's imperative all players wear mouth guards anytime they're wearing their helmet. Properly fitted mouth guards have been shown to reduce the risk of tooth injuries and concussions when worn properly. **Properly fitted mouth guards serve the following major roles in preventing injuries:**

- 1) help decrease the incidence of concussions,** and other head and neck injuries;
- 2) decrease the risk of chipping or fracturing teeth;**
- 3) protect the lips, cheeks and gums** from lacerations and bruises;
- 4) decrease the risk of jaw fractures and dislocations,** and;
- 5) protect toothless spaces** in the mouth.

In the sport of football, it's imperative all players wear mouth guards anytime they're wearing their helmet.

A properly fitted mouth guard is one that protects all the teeth, is fit according to manufacturers' instructions, and has not been altered in any way. **If a mouth guard loses its shape, thickness, or ability to stay in place it should be replaced so it continues to provide protection for the athlete.** Inexpensive mouth guards may save money initially, but they will need to be replaced more often and may not provide the same degree of protection as the more expensive, custom-fitted mouth guards.

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The American Society of Testing & Materials (ASTM) and International Academy of Sports Dentistry recommend mouth guards meet the following criteria:

- 1) provide maximal protection and cushioning** to the teeth;
- 2) retain their shape and thickness;**

- 3) **maintain proper position** in the mouth;
- 4) **cover all teeth** of one arch (either the upper or lower jaw);
- 5) **allow for speech** considerations equal to the demands of the sport;
- 6) **meet Food and Drug Administration (FDA) approval**, and;
- 7) **have a life span equal to one season** of play.

If a mouth guard loses its shape, thickness, or ability to stay in place it should be replaced so it continues to protect the teeth. Inexpensive mouth guards may save money initially, but they will need to be replaced more often and may not provide the same degree of protection as more expensive, custom-fitted mouth guards.

TYPES OF MOUTH GUARDS

There are three basic types of mouth guards available: stock, boil & bite, and custom made.

Stock Mouth Guards - purchased off the shelf and used without any modifications or forming to the mouth.

Advantages

Easy to use
Inexpensive
Acceptable properties for mouth protection

Disadvantages

Fit poorly
Cause discomfort & pain
Low user compliance due to poor fit & discomfort
Lose thickness & shape over time

Boil & Bite Mouth Guards - purchased off the shelf, then heated and placed in the mouth to allow the mouth guard to form to the teeth and mouth.

Advantages

Easy to use
Inexpensive
Less bulky than stock mouth guards
Include a strap to attach them to a helmet
Potential to fit fairly well, if heated & formed properly

Disadvantages

Lose thickness & shape over time
Deteriorate over time
If not fitted properly can cause discomfort & pain

Custom-fitted Mouth Guards - created by a dentist using a mold of the athlete's upper teeth. **Custom-fitted mouth guards provide the highest degree of comfort, protection and durability.**

Advantages

Optimal fit, comfort, & protection
Less interference with breathing & speech
More durable & longer life than other models
Maintain position in mouth without effort by the athlete

Disadvantages

More expensive than other types
Require two dental visits for fitting

Custom-fitted mouth guards provide the highest degree of comfort, protection and durability.

FIRST AID FOR A KNOCKED OUT TOOTH

If a tooth is knocked out, what happens in the first thirty (30) minutes following the incident are crucial in determining whether, or not, the tooth can be saved. The person should be taken immediately to a dentist for treatment. The following steps should be taken to preserve the tooth until arrival at the dentist's office.

- 1) Rinse the tooth with tap water;
- 2) DO NOT SCRUB THE TOOTH;
- 3) Insert the tooth back into the empty socket as quickly as possible;
- 4) if the tooth cannot be reinserted into the socket, place it in milk (1st choice) or water.

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Questions and/or comments about mouth guards, or other areas dealing with student-athlete's wellness, are welcome and encouraged. They should be directed to Alan Beste, LAT, Administrative Assistant, Iowa High School Athletic Association, PO Box 10, Boone, IA 50036. (515) 432-2011, <abeste@iah saa.org>

Sources: "IASD Position Statement for 'A Properly Fitted Mouthguard'," International Academy of Sports Dentistry, <www.acadsportsdent.org/position.htm>; "Emergency Treatment for Athletic Dental Injuries," International Academy of Sports Dentistry, <www.acadsportsdent.org/position.htm>; "Mouth Guards and Dental Emergencies," University of Maryland Medicine, www.umm.edu/oralhealth/guard.htm>; NFHS Sports Medicine Handbook, National Federation of State High School Associations, Indianapolis, IN, First Edition, 2001.