



Standard Practice for Care and Use of Athletic Mouth Protectors¹

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1. Scope

1.1 This practice covers the care and use of intraoral mouth protectors as protective equipment for sports. Mouth protectors includes what are commonly termed mouth guards.

1.2 Mouth protectors, as described herein, refer to either Type I, Type II, or Type III mouth protectors as classified in Section 3.

1.3 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.*

2. Terminology

2.1 *Definitions of Terms Specific to This Standard:*

2.1.1 *mouth protector*—a resilient device or appliance placed inside the mouth (or inside and outside), to reduce mouth injuries, particularly to teeth and surrounding structures.

3. Classification

3.1 Mouth protectors covered by this practice shall be of the following types and classes:

3.1.1 *Type I—Thermoplastic Type:*

3.1.1.1 *Class 1a*—Vacuum-formed.

3.1.1.2 *Class 1b*—Vacuum-formed adjusted.

3.1.1.3 *Class 1c*—Mouth-formed.

3.1.1.4 *Class 2a*—Pressure laminated.

3.1.1.5 *Class 2b*—Pressure laminated adjusted.

3.1.2 *Type II—Thermosetting Type:*

3.1.2.1 *Class 1*—Mouth-formed.

3.1.3 *Type III*—Stock type.

4. Significance and Use

4.1 Intra-oral mouth protectors have been found usable and effective in all physical sports activities where mouth hazard exists.

4.2 Considerable evidence indicates that the use of mouth protectors reduces forces on dentition and can potentially mitigate orofacial injuries.

5. Design Considerations

5.1 For maximum protection, cushioning, and retention (that is, to reduce the chance of dislodgement), the protector should cover all the remaining teeth of one arch, customarily the upper, less the third molar (except with a prognathic lower jaw). The borders of the mouth protector should cover as much of the alveolus and extend to the depth of the vestibule intraorally, without interfering with the movement of the intra-oral tissues.

5.2 The use of both a separate maxillary (upper) and mandibular (lower) mouth protector is seldom recommended due to no demonstrated benefit, reduced comfort with lack of compliance from individuals. The use of a combined (dual arch) maxillary and mandibular mouthguard is an acceptable design.

5.3 Consideration needs to be given to how the mouth protector occludes with the opposing teeth. The mouth protector needs to have contact with as many teeth in the opposing arch and contact evenly on as many teeth as possible.

5.4 Mouth protectors that attach to headgear via a strap should be adjusted to fit as described above (for non-strap attached).

6. Special Limitations

6.1 The fitting of mouth protectors is best accomplished under the supervision of trained athletic, medical, or dental staff familiar with the specific mouth protector to be used.

6.2 Players wearing orthodontic appliances or having mouth malformations (abnormalities) should be provided with a mouth protector only under the supervision of a dentist.

6.3 Players wearing removable partial dentures should remove them before being provided with a mouth protector.

6.4 Players wearing complete dentures should be fitted with a mouth protector (with or without the denture in place) as decided and supervised by a dentist.

6.5 If the changing dentition, due to the age of the player, is judged to be a problem, the use of a thermally moldable mouth

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protector, which can be repeatedly reformed, is recommended, or a new custom protector made.

7. General Recommendations

7.1 *Cleaning*—The mouth protector manufacturer guidelines for cleaning should be followed. In instances where the manufacturer does not offer cleaning guidelines, the following can be applied as a general guideline: Always wash daily in cold or lukewarm water. The use of a cleaning agent containing an antimicrobial agent is recommended. The use of commercially available daily cleansing agents available for dentures can be used to effectively clean the mouth protector.

7.2 *Storage and Shipping*—Avoid excessive heat or cold. Custom-made protectors should be shipped or stored in such a way that their ability to fit and be retained on athlete's dentition is preserved. More specifically, they should be protected from temperatures and forces that could alter their shape and extent

of coverage of dentition. Antimicrobial storage cases can be used to store mouth protectors between instances of use.

7.3 *Mouth-Forming*—For forming the thermally moldable variety, have the protector wet (do not insert in the mouth dry).

7.4 *Use*—Players should be instructed to use mouth protectors when engaged in any physical sport activity where the hazard of mouth injury exists, including sports where helmets with face protection are mandated.

7.5 *Replacement*—Mouth protectors should be replaced when tearing appears or resiliency is lost. Mouth protectors should be replaced when there is any obvious or suspected damage to the protector. Mouth protectors should be replaced or refitted, or both, when the protector no longer fits as a result of long term use and wear or changes in the athlete's dentition.

8. Keywords

8.1 care and use; mouth guard; mouth protector; oral appliance; protective equipment; protective head gear

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