Mouthguard Protection

Submitted by: Brett H. Taylor, D.D.S.



As quickly as a fall or an elbow to the face can happen while playing sports, you may be wishing you or your child had worn a mouthguard. Many sports and other recreational activities have a high risk of trauma to the face that can lead to fractured or lost teeth as well as injuries to the bone and soft tissue that can be costly to repair.

Fortunately, a properly fitted mouthguard is an easy, cost-effective way to reduce the severity or completely prevent traumatic injuries to the mouth. Mouthguards work by absorbing the impact energy that otherwise would be delivered to the teeth, bone, soft tissue, and the temporomandibular joint (TMJ).

According to studies reported by the American Dental Association, an athlete who doesn't wear a mouthguard is 60 times more likely to cause damage to their teeth. However, still over 60% of parents admit that their children do not wear a mouthguard when playing sports that have the potential for injury to the face.

Mouthguards should be worn when there is a possibility of body-to-body or body-to-equipment contact. Even sports that traditionally do not mandate the use of mouthguards for participation, such as gymnastics, basketball, softball, skiing, biking, and skateboarding can pose a significant risk to face and mouth injuries.

There are three basic types of mouthguards available (listed below). Although all three types provide some level of protection, they differ in comfort, fit, and durability. A mouth guard must be well-fitting, tear-resistant, comfortable, and not interfere with speaking or breathing.

Types of Mouthguards (listed in order of least to most protective):

- Stock mouthguards (Store Purchased) No customization is possible and they come in limited sizes. As a result, they easily fall out and the bulkiness in certain areas can be irritating. The material typically used in these mouthguards is inferior in terms of its durability and ability to absorb force. Most dentists do not recommend these guards, and most athletes find them uncomfortable.
- **Boil-and-bite mouthguards** (Store Purchased) These guards are heated and then formed directly in the mouth. As a result, they provide a more customized fit at a cheaper price than a custom-made mouthguard. However, retention can still be an issue with these guards. Lab impact tests show less cushioning, retention, and absorption of force than the custom-made guard. These guards can be a good option for children and young adults in braces, where multiple mouthguards may need to be purchased during the course of orthodontic treatment.
- Custom-made mouthguards (Dentist Made) By far the most protective, comfortable, and durable mouthguard available. The improved fit provides the least interference while speaking and studies have shown it does not negatively affect breathing. These guards are typically more costly than the other options. However, when compared to the price of other protective equipment worn in sports as well as the dental fees associated with unprotected oral trauma, the custom-made mouthguard is a cost-effective option.

Protection from traumatic injuries to the face can be greatly reduced or prevented with the use of a well-fit mouthguard. Ask your dentist about which mouthguard would be best suited for you.

