

## Athletic Mouthguards

As summer comes to an end, children and adults alike eagerly anticipate the beginning of school and organized sports. It is important to recognize that sports have the potential to cause traumatic injuries to our teeth. According to the U.S. Centers for Disease Control, sports-related dental injuries account for more than 600,000 emergency room visits each year. The American Dental Association Councils have confirmed that numerous surveys of sports-related dental injuries have documented that participants of all ages, genders and skill levels are at risk of sustaining dental injuries in sporting activities, including organized and unorganized sports at both recreational and competitive levels. Whenever there is a possibility of contact with other players or hard surfaces, it is recommended that a mouthguard be used. Anybody who participates in basketball, volleyball, softball, football, wrestling, soccer, lacrosse, rugby, hockey, martial arts, or skateboards or bikes competitively should wear mouthguards while competing. Using a properly fitted mouthguard is the best protective device we have for reducing the incidence and severity of sports-related dental injuries. It is estimated by the American Dental Association that mouthguards prevent approximately 200,000 injuries each year in high school and collegiate football alone.

A mouthguard is a flexible soft appliance that is worn over the teeth. Mouthguards can prevent serious injuries such as broken teeth, jaw fractures, concussions and neck injuries by helping to avoid situations where the lower jaw gets jammed into the upper jaw. Mouthguards are also effective in keeping soft tissues in the mouth away from the teeth, preventing laceration and bruising of the lips and cheeks. The three basic types of mouthguards are stock mouthguards, mouth-formed mouthguards and custom-made mouthguards. Stock mouthguards are the lowest cost option. They are ready-made, stock items and offer the least protection because the fit adjustment is limited. They may interfere with speech and breathing because this mouthguard requires that the jaw to be closed to hold it in place. A stock mouthguard is not considered acceptable for adequate protection. The second type is a mouth-formed mouthguard. Mouth-formed mouthguard come in two types. The first is a shell-liner mouthguard that is made with an acrylic material that is poured into an outer shell, where it forms a lining. When placed in an athlete's mouth, the protector's lining material molds to the teeth and is allowed to set. Another type is a thermoplastic, or "boil-and-bite," mouthguard. This mouthguard is softened in hot water and then placed in the mouth and shaped around the teeth by using finger, tongue and sometimes biting pressure. These options may not result in a mouthguard which offers adequate protection as there are many variables depending on how the material is manipulated. The best option is to have a mouthguard custom-made by your dentist. It offers the best protection, fit and comfort level because it is made from a cast to fit your teeth.

It is important to care for your mouthguard. It has been documented that mouthguards can harbor bacteria. If it is stored with sweaty gear and never cleaned it can harbor significant bacteria which have the potential to cause infectious and inflammatory diseases. After using, clean your mouthguard by washing it with soap and cool (not hot) water. Store your mouthguard in a well-ventilated, plastic storage box when not in use. Make sure the box has several holes so the mouthguard will dry out completely. Because heat can deform a mouthguard do not leave it in direct sunlight or in a closed automobile. It is important to not handle or wear someone else's mouthguard.

Mouthguards have been shown to prevent injuries and should always be used while participating in sports. The loss of one tooth has the potential to cost over a lifetime \$10,000 - \$15,000 per tooth, hours in the dentist's chair and complications involving other teeth. See your dentist and have a custom made mouthguard fabricated to protect your teeth and your smile.

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