



A USACHPPM/DENCOM Initiative

Sink Your Teeth Into Injury Prevention With Mouthguards!

When you play sports, do you wear a mouthguard? Do you encourage your children to do so? If not, you should! Here's why.

Prior to 1962, half of all high school football injuries were to the mouth and face. Today, mouth and face injuries account for only 1.4% of all high school football injuries. This remarkable reduction in mouth and face injuries is due to a simple preventive device--the mouthguard--along with a change in official game rules mandating their use and enforcement of the rule. Mouthguards do more than protect the teeth from being knocked out or fractured and the lips, cheeks, and tongue from being cut or bruised. They also reduce the likelihood of jaw bone fractures by absorbing the energy of blows to the face. Yet, despite this demonstrated success, only four other sports mandate the use of mouthguards at the amateur level--boxing, ice hockey, lacrosse, and women's field hockey. Further, a recent study on mouthguard use by the National Institute of Dental Research found that only 7% of young athletes who played the nation's two most popular sports--baseball and soccer--wore mouthguards most or all of the time.

The American Academy for Sports Dentistry lists 40 sports for which it recommends the use of mouthguards, including acrobatics, baseball, basketball, bando, cycling, discus, shot put, horseback riding, gymnastics, handball, racquetball, squash, judo, karate, roller-blading, rugby, motorcross, parachuting, skiing, soccer, surfing, skateboarding, ice skating, trampoline, tennis, volleyball, wrestling, weight lifting, and water polo. Today, these are the sporting activities where mouth or dental injuries are seen most frequently, not in organized football or hockey. The National Youth Sports Foundation for the Prevention of Athletic Injuries estimates that during any sports season, athletes have a 10% chance of sustaining an injury to the face or mouth. However, because of the mandatory use of mouthguards and helmets, this chance is only 0.45% for football. Mouthguards are estimated to prevent 100,000-200,000 oral injuries to high school and college football players annually.

Why don't more amateur athletes use mouthguards? One reason is that many athletes don't know of the benefits that a mouthguard provides. Another is that their coaches don't encourage them to do so. Yet another reason is that mandatory mouthguard use is not part of the official rules for many sports. Some athletes object to mouthguard use because they complain that mouthguards are uncomfortable, fit poorly, or impair breathing or speech. Many of the complaints about mouthguards are attributable to improper design or fit and can be easily overcome by a professionally, custom-made mouthguard.

There are three types of mouthguards available. Although all three types provide some protection, they differ in comfort, fit, and cost. Ready-to-wear *stock* mouthguards are the least expensive, but they are also the least retentive and the least protective. They are often bulky and uncomfortable and interfere with breathing and speech because they must be held in position by clenching the teeth together. *Boil and bite* mouthguards are immersed in hot water and then formed in the mouth using one's finger, tongue, and biting pressure. Both stock and boil and bite mouthguards are readily available in most sporting goods stores. However, neither is as protective, retentive, comfortable, or non-interfering with speech and breathing as a professionally, *custom-made* mouthguard. Custom-made mouthguards are vacuum formed over a dental model of the arch. They must be made by a dentist.

An estimated 5 million teeth are knocked out annually at sporting events. Unless mouthguard use is adopted by more sports, this number is sure to rise as more Americans become athletically active. Athletes of all ages are prone to these injuries, not just children. And these injuries are costly. The total costs for replacing a single knocked-out tooth can be more than 20 times the preventive cost of a professionally, custom-made mouthguard. So, before you play, see your dentist. Protect yourself and your children. Play hard and play smart! Sink your teeth into a mouthguard!

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