



Mouthguard Position Statement

November 20, 2015

The OAPHD's position is that any type of mouthguard wear be mandatory for all organized and non-organized recreational sports where the chance of an injury to the mouth exists by contact with an object or other person. A properly fitted mouthguard is the best available protective device for reducing the incidence and severity of orofacial sports related injuries.

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Issue:

Sport plays an integral part in many Canadians lives. Approximately 23%-54% of Canadians participate regularly, to some extent, in sport.¹

Every individual involved in contact sport has at least a 10% chance, each season, of sustaining an orofacial injury.^{2 3}The risk not only exists in contact sports such as hockey, football and rugby but in other sports traditionally considered non-contact, such as basketball, soccer and baseball. Many other activities such as skateboarding and rollerblading also present a risk. Injuries to the teeth and surrounding tissues can be an unexpected, negative consequence of participation in these sports and activities. In sports where face shields or cages are mandated, it is still recommended that mouthguards be worn as the teeth and jaws could collide together on impact and cause injury.

Methodology:

OAPHD conducted a literature review of position papers and peer reviewed journals dated from 1995-2013.

Background Information:

The incentive for the OAPHD to bring forth a position statement around mouthguard use arose when it came to light that some sports teams in an Ontario community decided mouthguards were no longer required since evidence has shown that mouthguards do not prevent concussions. While mouthguards do not prevent concussions, they are an essential part of an athlete's protective gear to prevent hard and soft dental injuries.

A single blow to the mouth or jaw can cause serious trauma to the teeth or surrounding tissues of the mouth that can be very painful and expensive to treat. Damage to the front teeth is a relatively common occurrence. It was observed in 18.5% of Grade 8 children in a survey of six Ontario communities.⁹

The damage resulting from a blow to the jaw and mouth can also have lasting impact on a person's life. Research shows that orofacial injury in sport is prevalent and carries significant medical, financial, cognitive, psychological and social costs.⁴⁵ In light of this research, a number of health and dental organizations (Canadian Dental Association, Canadian Dental Hygiene Association, Ontario Dental Hygienists Association, Ontario Dental Association, Health Canada, Canadian Academy of Sports Medicine, American Medical Association, American Academy of Pediatrics) consider orofacial injury to be an important public health issue and have adopted position statements on injury prevention and the use of mouthguards.

Mouthguards are a good investment because they may prevent injuries that would incur both financial and personal costs to the individual. It has been reported that athletes who do not wear mouthguards are 60 times more likely to damage their teeth and surrounding tissues of the mouth.⁶ The total rehabilitation costs for a single avulsed tooth (a tooth that has been knocked out or pushed into an abnormal position) are more than 20 times the cost of a quality, professionally fabricated mouthguard. Lifetime dental rehabilitation costs can exceed \$15,000 per avulsed tooth.⁷ The cost implications are more than just monetary. Consideration must also be given to pain suffered, lost time from school and work, as well as the time spent in a dental chair.

Injuries to teeth are the most common type of orofacial injury with crown fractures being the most common injury to the permanent dentition.⁶

Treatment to repair cracked, fractured or avulsed teeth may include root canal therapy, crown, bridge, implants or dentures. An athlete has a 10% chance of receiving an orofacial injury every season of play. In addition, athletes have a 33-56% chance of receiving an orofacial injury during their playing career.⁸

Wearing a properly fitted, protective mouthguard can help prevent or reduce damage to the teeth and help protect intraoral tissues, such as lips, cheeks and gums from lacerations and bruising.

Mouthguards are effective by providing a resilient, protective barrier that distributes and dissipates forces on impact, thereby minimizing the severity of traumatic injury to the hard and soft tissues of the mouth.

There are generally three different types of mouthguards available. Stock mouthguards, mouth-formed mouthguards and custom fabricated mouthguards. When selecting a mouthguard, comfort, durability, and the ability to breathe and speak are importance considerations and can affect user compliance.

Stock mouthguards are commercially available in stores and are worn without any modifications by the user. Since these mouthguards are available in predetermined sizes, the user may find the mouthguard uncomfortable due to poor fit. The mouthguard may also restrict breathing and limit speech as the user has to clench on mouthguard to hold it in place. Commercial mouth-formed mouthguards are formed to the mouth by warming the mouthguard material (usually by boiling in water) and molding it around the teeth and gums. These tend to be better fitting and provide superior comfort as compared to the stock mouthguards but are inferior to fit and comfort compared to the custom fabricated type. Custom fabricated mouthguards are considered to provide superior comfort; retention and protection compared with the other mouthguard types.¹⁰ Custom fabricated mouthguards are made from a mold or impression taken by a dental professional. The mouthguard is made from the cast and is then trimmed and polished for optimal adaptation around the hard and soft tissues. Custom fabricated mouthguards are generally the most expensive of the different types of mouthguards.

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