

Characteristics of the three types of mouthguards

	Type 1	Type 2	Type 3
	<i>Mass-produced mouthguard</i>	<i>Boil and bite mouthguard</i>	<i>Custom-made mouthguard (of one or more thicknesses [pressure-laminated] or injection-moulded)</i>
Stability, comfort (adjustability)	Little or none	Minimal	Appropriate
Protection (resistance)	Inadequate	Unreliable	Appropriate for contact sports
Breathing, speech	None or inadequate	Unreliable	Acceptable to superior
Price	Between \$3 and \$10	Between \$10 and \$100	Between \$100 and \$250
Advantages	Low price	<ul style="list-style-type: none"> Low price Can be adapted to an orthodontic appliance 	<ul style="list-style-type: none"> Does not hinder breathing Does not hinder speech High to optimal protection Can be adapted to an orthodontic appliance
Disadvantages	<ul style="list-style-type: none"> Unsuitable for intended use Remains in place only when mouth is closed Offers little or no protection 	<ul style="list-style-type: none"> Instability Uneven thickness of protection over all teeth 	Relatively expensive
Warning	<ul style="list-style-type: none"> Can obstruct respiratory passages Risk of swallowing 	The reduction of the thickness of the mouthguard at key spots during adjustment may considerably limit the protection it provides.	

Note: Even when a mouthguard is worn, there is still a risk of injury.

References

American Academy of Pediatric Dentistry, American Association of Oral and Maxillofacial Surgeons and American Association of Orthodontists. "A consumer's guide for selecting the right mouth guard," [online], www.braces.org.

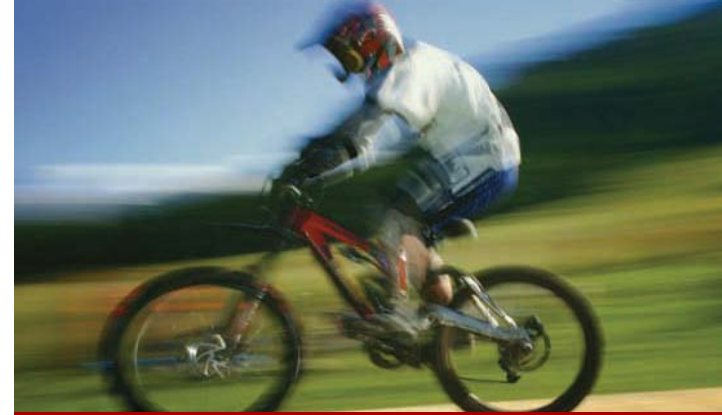
American Dental Association, www.ada.org.

Canadian Dental Association, "Dental Safety and Emergencies: Mouthguards," [online], www.cda-adc.ca.

Hamel, D., and C. Goulet. *Étude des blessures subies au cours de la pratique d'activités récréatives et sportives au Québec en 2004*. Québec: Ministère de l'Éducation, du Loisir et du Sport – Institut national de santé publique du Québec, 2006.

Ordre des dentistes du Québec. "Mouthguards," <http://www.odq.qc.ca/ProtectionofthePublic/Preventivecare/Mouthguards/tabid/225/language/en-US/Default.aspx>.

Patrick, D.G., R. Van Noort and M.S. Found. "Scale of protection and the various types of sports mouthguard," *British Journal of Sports Medicine*, vol. 39, No. 55, May 2005, 278-281.



Always wear your mouthguard!



Did you know that over 25% of unintentional injuries in Québec are related to recreational and sports activities? According to the Étude des blessures subies au cours de la pratique d'activités récréatives et sportives au Québec en 2004, every year, nearly 40 000 of these injuries are to the head, not counting the eyes.



Type 1

Mass-produced mouthguard (Type 1)

The first type of mouthguard is mass produced. It can be purchased in most sporting goods stores; indeed, it is often provided free with the purchase of specialized equipment. Although this type of mouthguard costs less than the other types, it is less effective and cannot be adjusted properly. Furthermore, it does not stand up to even moderate impact. Its instability within the mouth can be dangerous, as it can obstruct the respiratory passages if an athlete loses consciousness.

Wearing a mouthguard can reduce the severity of injuries

Mouthguards considerably reduce the severity of effects, not only on the teeth, but also on the lips, the tongues, the cheeks and the jaws (soft tissue). The mouthguard limits the risk of buccofacial lesions and absorbs shocks that can cause more serious injuries such as a fractured jaw or broken teeth.



Type 2

Boil and bite mouthguard (Type 2)

This is the most commonly used mouthguard on the market. The user immerses it in boiling water for about one minute to soften it, bites gently into it, then moulds it. This type may be appropriate for people who wear an orthodontic appliance. However, its retention is poor, it is not very effective and it is quite uncomfortable.

Wear it during training and in competition

It is advisable to wear a mouthguard in any situation involving a strong risk of contact with other participants or with hard surfaces and objects. To be effective, the mouthguard should be comfortable and should not irritate the soft tissues. Retention in the mouth must be perfect, and neither breathing nor speech should be hindered. The mouthguard should precisely mould all the structures it covers, without causing nausea. There are three types of mouthguards on the market. However, only one model fulfills all the requirements for effectiveness.



Type 3

Custom-made mouthguard (Type 3)

These mouthguards, which may be of one or more thicknesses (pressure-laminated) or may be injection-moulded, are the best on the market. They are custom fitted by the dentist using a mould of the teeth. Some parts may be reinforced in keeping with the risks involved in playing a specific sport. These are the most expensive models, but remain the only really effective form of protection against buccofacial injuries. They also make it possible to reduce the seriousness of certain injuries such as a fractured jaw or broken teeth.



Figures 1 and 3 are courtesy of the Canadian Dental Association; Ray R. Padilla, "Point of Care," *Journal of the Canadian Dental Association* (April 2005), vol. 71, no. 4, p. 270.

Figure 2 is courtesy of Dr. Jean-Luc Dion, D.M.D.