

Classification and Importance of Mouthguards in Sports

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Description

Mouthguards, also known as mouth protectors, reduce the chance of broken teeth and injuries to your lips, tongue, face, or jaw by helping from a blow to the face. They are an enormous way to safeguard the soft tissues of your tongue, lips, and cheek lining and generally cover the uppermost teeth. The ideal mouthguard is one that your dentist has manufactured just for your mouth. However, you should still use a stock mouthguard or a boil-and-bite mouthguard from the drugstore if you can't afford a custom-made mouthguard. A properly fitted mouth guard may be especially critical for people who wear braces or have fixed bridge work because a facial injury could harm those braces. Your dentist or orthodontist can choose the mouthguard that will provide the optimum protection for your specific dental or orthodontic needs. Participating in athletic and leisure pursuits, especially collision, contact, or fast-paced sports, might increase a person's chance of suffering dental trauma or orofacial injury. Use of a mouthguard has been found to lower the risk of dental injuries caused by sports. The American Dental Association (ADA) advises to use a mouthguard that is properly fitted to prevent oral injuries during sports or recreational activities, especially those that carry a high risk of dental trauma or orofacial injuries. A mouthguard's retention should be sufficient to provide a durable, protective surface on the dental arch that is thought to be most susceptible to damage (usually the maxilla) and to protect the lips and cheeks from soft tissue injuries.

Classification of Mouthguards

Mouthguards can be classified into three different categories: Ready-made or in-stock mouthguards, boil and bite or Mouth Formed mouthguards, and custom mouthguards (made by a dentist).

In-Stock (Ready-Made)

The sort of mouthguard that is most widely accessible and least expensive is in-stock (or ready-made) mouthguard. In-stock mouthguards are sold at various departments and sports goods stores. However, they come in a small range of sizes, prefabricated without being customised for the wearer's mouth, and must be kept in place by closing the mouth. Due to its generic form, poor fit, and insufficient retention (requiring repeated repositioning during sporting activities), the in-stock mouthguard is deliberated as the least effective mouthguard type.

Mouth Formed (Boil-and-Bite)

These self-adapting mouthguards are made to soften for around 15 seconds when submerged in hot water, after which

they are cooled and fitted precisely into the mouth. By applying bite pressure and manipulating the product with the tongue, fingers, and lips, the user can customise it to fit their mouth. Boil-and-bite mouthguards are commonly available at sports goods stores and are often meant to be fitted by the user at home. A dental expert may offer support with the final shaping, particularly if the user has orthodontic appliances. The thermoplastic copolymers used in boil-and-bite mouthguards, including EVA, can be easily moulded and heated to promote the production of a stable dental impression. Boil-and-bite mouthguard adaptation should be carried out in accordance with manufacturer recommendations in order to ensure adequate heating and moulding of the thermoplastic material and to avoid inaccurate or superficial contouring of the mouthguard to the wearer's bite, which can result in a poorly fitted device,

Custom Made

Individual patient impressions are used to create custom mouthguards at a dental office or lab using thermoforming processes, which commonly use vacuum-forming or pressure-forming techniques. Polyolefin, polystyrene-polyolefin copolymer, and ethylene vinyl acetate are among the materials utilised to make personalised mouthguards. These mouthguards can be altered to meet the needs or preferences of the wearer. A recent study suggested that in order to lower the risk of mouthguard displacement due to an impact force during athletic activity, personalised mouthguards with balanced occlusion and the greatest possible number of contacts with mandibular anterior teeth should be created. While offering players the best fit, adaptability, and effectiveness, completely personalised mouthguards are the most expensive alternative and also need dental visits for fitting and modification. While many believe that personalised mouthguards offer the best level of protection, but an ordinary mouthguards can also be just as protective if made properly and worn regularly.

Conclusion

The mouthguard needs to be properly taken care of. Before and after each usage, rinse your mouthguard with cold water or mouthwash, or use a toothbrush and mild soap to clean it. In cool, soapy water, thoroughly rinse the mouth guard. To keep or travel with the mouth guard, put it in a sturdy, perforated container. This enables airflow and lessens the chance of harm. If the mouth guard is made of acrylic, keep it in fresh, clean water. To prevent the mouth guard from losing its shape, keep it away from hot surfaces, hot water, and direct sunlight. Check the mouth guard from time to time for normal wear. Replace it if you detect any tears or holes in it, if it gets loose or is uncomfortable. Bring the mouthguard to your routine dental appointment so that your dentist can examine it.