

ORTHODONTICS

SPORTS-FLEX™ ATHLETIC MOUTHGUARDS

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Intraoral mouthguards are an important part of any total program of dental care. An athletic mouthguard should be employed in any athletic activity where contact can be made or a fall can occur.

Protect Your Patients Oral Health

Designed to protect against injuries to the teeth and lips, mouthguards have been shown to reduce forces that may cause concussions, cerebral haemorrhage, neck injuries and jaw fractures - forces and injuries that arise during participation in sports and athletic activities of any type. They accomplish this by separating the jaws, preventing the condyles from being displaced upward and backward against the wall of the glenoid fossa.

A report in *Pediatric Dentistry* magazine clearly indicates the importance of wearing mouthguards. Interviews involving 2,470 U.S. junior and senior high school athletes suffering sports-related injuries revealed that nine percent of all players suffered some form of oral injury while another 3 percent reported loss of consciousness. Seventy-five percent of injuries occurred while not wearing mouthguards. It has been estimated in other studies that millions of teeth are lost annually across North America during sporting activities. These injuries can occur at any age: child, teenager or adult.

Why Sports-Flex Mouthguards Versus Other Alternatives?

Unlike ready made, store bought

tooth protectors or directly formed, thermoplastic mouthguards, the Sports-Flex Family is individually custom-crafted using heat and pressure. This results in dramatically improved patient compliance as they are comfortable, do not impede breathing and allow for normal speech.

While stock mouthguards are often made from one sheet of plastic, each Sports-Flex is constructed with multiple layers of vinyl material. Mouthguards can be formed to fit either the individual's upper or lower arch utilizing an air pressure vacuum forming machine. A palatal brace of hardened plastic supplies added support for high risk upper anteriors, transmitting shear forces away from the teeth.

Maximum Protection For Every Activity Level

Choose from a full range of mouthguards, scientifically designed to meet the particular needs of each patient:

- **Sports-Flex "Super"**
(for high contact activities)
- **Sports-Flex "Regular"**
(for moderate contact activities)
- **Pro-form™ Multi-Purpose**
(for a wide variety of contact levels)
- An optional helmet strap is also available

Mouthguards are available in a wide range of colours (clear, bright red, green, black, dark yellow, bright yellow, hot pink, dark red, purple, light blue, orange, dark blue, white) to allow individual choice. Multiple colour combinations are also available.

A Great Practice-Building Opportunity

Every practice has athletically active patients of all ages. Offering mouth protection to these patients will open up many treatment opportunities for you. Patient who need a mouthguard should have:

- a comprehensive dental examination
- all caries and restorative work completed
- an orthodontic evaluation which can provide you with the opportunity to do minor treatment (e.g., retract protruding upper anteriors)

Contraindications & Concerns:

1. Mouthguards are most commonly made for the maxillary arch. For the athlete with a prognathic mandible, it is recommended that a custom mouthguard be made to cover the mandibular arch.
2. All new or recurrent caries should be treated prior to the fabrication of a mouthguard. The decay process could be accelerated if the mouthguard is worn over carious lesions.
3. New restorations seated after the mouthguard is placed could affect the fit of the guard.
4. Special care needs to be taken when designing mouthguards for the edentulous patient. Please consult with your closest Space Maintainers laboratory for further information.
5. Removable prosthodontic devices (appliances) should be removed prior to taking impressions for the mouthguard. The patient must be instructed to remove these appliances while wearing the mouthguard.
6. Third molars - the most frequent site of mandibular fracture is in the area of unerupted third molars. Each athlete should have

his or her third molars evaluated for possible extraction.

7. Erupting teeth - the area of tooth eruption should be blocked out on the dental model to allow a guard to be made which will allow for its normal eruption.
8. Orthodontics - mouthguards should be modified to allow for the anticipated changes over a 3-month period. Patients in fixed appliances should be wearing either separate mouthguards on both the upper and lower arches, or a bimaxillary mouthguard to prevent the possibility of severe soft tissue trauma.

Treatment Procedure:

1. Ask your existing and new patients what type of athletic activities they (and their family) participate in. Their answers will help identify those patients that would benefit from the Sports-Flex Family and which type would be best for them.
2. For the Sports-Flex "Super" or "Regular" styles, upper and lower models and an accurate bite registration are required.
3. For Pro-form mouthguards, the laboratory will require a set of accurate working models poured in dental stone and an accurate bite registration.
4. Send the appropriate models, bite registration and a prescription indicating the type and colour of mouthguard desired to the laboratory.
5. The laboratory can design a mouthguard to allow for on-going orthodontic treatment or for normal growth and development changes.
6. Upon delivery, discuss how to wear, clean and store the appliance.

Patient Mouthguard Care Instructions:

1. With proper care, a Laminated

Athletic Mouthguard will provide several years of use.

2. Inform the patient that mouthguards should be replaced every two years as they lose their resiliency and flexibility over time. Up to age 16, mouthguards should be replaced every year.
3. It is important that the patient keep the mouthguard moist in its container to allow it to maintain its flexibility and resilience. After use, instruct the patient to scrub the mouthguard with a toothbrush and place it in its case for protection.
4. The patient should be instructed to avoid exposing the appliance to heat and pressure as it may permanently deform. This may occur if the mouthguard is squashed in the bottom of a sports bag, left in a hot car or out in direct sunlight.

Recommended Auxiliary Materials:

For Impressions

- Replica or Kromopan 100 Alginate
- Mixing Bowl and Spatula
- Water
- Dental Stone (Snap-Stone)
- Impression Trays (Master Trays)

For Bite Registrations

- Futar® occlusion Bite Registration Material

References:

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3. McNutt, T. : Oral Trauma in Adolescent Athletes. PEDIATRIC DENTISTRY, Vol. 11 Number 3, pp. 209, Sept. 1989.
4. Lee-Knight, C.T. : Protective Mouthguards in Sports Injuries. JOURNAL OF CANADIAN DENTAL ASSOCIATION, Vol. 57 number 1, pp. 39-41, Jan. 1991.

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