Prevention of dental trauma in contact sports  Ayse Diljin Kececi Süleyman  
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In contact sports, players physically interact with each other, trying to prevent the opposing team or person from winning. Contact sports such as rugby, hockey, boxing, basketball or martial arts belong to the high-risk sports. A blow or kick from the rival most often causes injury to one tooth, while a fall or blow from a hard object often results in injuring more than one tooth. Enamel fracture, crown fracture with or without pulp exposure, root fracture, luxation injuries, avulsion and fracture of the alveolar process are types of dental trauma. Dental damage following these injuries is usually irreversible and can cause functional, esthetic and psychological impairment. Prevention of these injuries must be the prime emphasis of sports dentistry. With the introduction of mouthguards at about the turn of the century and their widespread use, there has been a reduction in sports-related dental injuries. Mouthguards have a significant role in absorbing and dissipating very important part of the energy in the impact zone. Its main functions are reduction of the impact of direct and indirect contacts resulting in the orofacial injuries, soft tissue lacerations, temporomandibular joint damage, concussion, and mandible fractures. It must be kept in mind that various mouthguards have, to some degree, an injury-preventing effect. Many sports-related dental and orofacial injuries can still occur regardless of whether a mouthguard is worn or not. The obvious cause of injury in mouthguard-wearing cases is when the impact force far exceeds the protective capability of a mouthguard. However, the ordinal impact power in sports is estimated to be smaller than that found in traffic accidents and mouthguards are found to be the most effective way of preventing dental injuries. It is usually found difficult to wear the stock or boil-and-byte type of mouthguards, because of oral dryness, nausea, instability, difficulties in breathing and speaking. New studies report that such kind of problems and the performance of the athlete are not negatively affected, when a custom-made type of mouthguard is used. Over the recent years, there has been an increasing interest in studies related to the protective properties of mouthguards like reinforcement by various techniques for better shock absorption, better adaptation and some other details for athletes' satisfaction, which will be focused on in this lecture. Besides the importance of sports dentistry and the role of sports institutions on increasing the awareness of mouthguard use will be emphasized.