

Preventing Dental Trauma: The Importance of Mouthguards in High-Risk Activities

Ursala Fischer*

Department of Medicine, University of Lagos, Idi-Araba, Nigeria

Short Communication

Received: 27-Nov-2024, Manuscript No. JDS-24-156522; **Editor assigned:** 29-Nov-2024, PreQC No. JDS-24-156522 (PQ); **Reviewed:** 13-Dec-2024, QC No. JDS-24-156522; **Revised:** 20-Dec-2024, Manuscript No. JDS-24-156522 (R); **Published:** 27-Dec-2024, DOI: 10.4172/2320-7949.12.4.001.

***For Correspondence:**

Ursala Fischer, Department of Medicine, University of Lagos, Idi-Araba, Nigeria

E-mail: fshur@hotmail.com

Citation: Fischer U. Preventing Dental Trauma: The Importance of Mouthguards in High-Risk Activities. RRJ Dental Sci. 2024;12:001

Copyright: © 2024 Fischer U. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution and reproduction in any medium, provided the original author and source are credited.

ABOUT THE STUDY

Dental trauma is a common and often preventable consequence of sports and high-risk activities. From fractures to avulsions, injuries to teeth can have long-term effects on oral health, aesthetics and functionality. One of the most effective ways to minimize the risk of dental trauma is by using mouthguards. Despite their proven benefits, their adoption remains inconsistent across high-risk activities. This short communication highlights the importance of mouthguards in preventing dental trauma and the need for increased awareness and compliance among individuals engaged in such activities.

Sports and recreational activities are among the leading causes of dental trauma. Contact sports like football, hockey and boxing carry an especially high risk due to the physical nature of the games. Similarly, activities like skateboarding, cycling and gymnastics can also result in dental injuries due to falls or collisions. Children and adolescents, in particular, are at greater risk, as their developing dentition is more susceptible to damage. Dental trauma can range from minor injuries, such as enamel fractures, to severe conditions like tooth avulsion or root fractures. The consequences of such injuries can include pain, loss of function, psychological distress and the need for extensive dental treatments, which are often costly and time-consuming^[1-4].

Mouthguards are protective devices designed to absorb and distribute the forces of impact, thereby reducing the risk of dental and oral injuries. Their use has been endorsed by dental associations and sports organizations worldwide as a critical preventive measure. Mouthguards are especially effective in preventing tooth fractures, dislodgements and soft tissue injuries, such as lacerations to the lips or tongue.

Despite their proven effectiveness, the use of mouthguards remains suboptimal in many sports and activities. Common barriers to adoption include discomfort, speech and breathing difficulties and the perception that mouthguards are unnecessary. Additionally, the cost of custom-made mouthguards can be a deterrent for some individuals [5-8].

Another significant factor is the lack of awareness and enforcement of mouthguard use. While some sports mandate their use, others do not, leaving the decision to athletes, parents, or coaches. This lack of regulation contributes to inconsistent usage patterns and increased risk of dental trauma.

To increase the adoption of mouthguards, targeted educational campaigns are essential. Schools, sports organizations and healthcare providers should emphasize the benefits of mouthguards and address common misconceptions. Highlighting real-life examples of dental trauma and its consequences can drive home the importance of prevention [9,10].

Sports associations should also consider making mouthguard use mandatory for high-risk activities. Providing subsidies or insurance coverage for custom-made mouthguards can make them more accessible, encouraging wider usage.

Parents, coaches and educators play a vital role in fostering a culture of safety. Encouraging children and athletes to wear mouthguards consistently can establish lifelong habits that prioritize oral health.

Mouthguards are a simple yet highly effective tool in preventing dental trauma during high-risk activities. By reducing the severity of injuries and protecting oral structures, they play an important role in maintaining oral health and well-being. Increased awareness, accessibility and enforcement of mouthguard use are essential to ensure that individuals, particularly children and adolescents, are adequately protected. As dental trauma remains a prevalent issue, adopting preventive measures like mouthguards is a responsibility that cannot be overlooked.

REFERECES

1. Sharan J, et al. Applications of nanomaterials in dental science: A review. *J Nanosci Nanotech.* 2017;4:2235-55.
2. Rasouli R, et al. A review of nanostructured surfaces and materials for dental implants: Surface coating, patterning and functionalization for improved performance. *Biomater Sci.* 2018;6:1312-38.
3. Dorozhkin SV. Dental applications of calcium orthophosphates (CaPO₄). *J Dent Res.* 2019;2:1007.
4. Florez FL, et al. Orally delivered nanoparticle drug-delivery systems for dental applications and their systemic toxicity. *Nanobiomat Clin Dent.* 2019;595-616.
5. Khatami M. Laser nano surface texturing for enhancing of physical and chemical properties of dental implants. *Nanomed Research J.* 2023;1:1-5.
6. Fischer NG, et al. Harnessing biomolecules for bioinspired dental biomaterials. *J Mater Chem B.* 2020;38:8713-47.
7. Zhong LP, et al. Long-term results of a randomized phase III trial of TPF induction chemotherapy followed by surgery and radiation in locally advanced oral squamous cell carcinoma. *Oncotarget.* 2015;6:18707-18714.
8. Fury MG, et al. Phase II study of saracatinib (AZD0530) for patients with recurrent or metastatic Head and Neck Squamous Cell Carcinoma (HNSCC). *Anticancer Res.* 2011;31:249-253.

9. Haddad RI, et al. Induction chemotherapy in locally advanced squamous cell carcinoma of the head and neck: Role, controversy, and future directions. *Ann Oncol.* 2018;29:1130-1140.
10. Bar-Ad V, et al. Current management of locally advanced head and neck cancer: The combination of chemotherapy with locoregional treatments. *Semin Oncol.* 2014;41:798-806.