

Recommendations on prevention in guidelines from the International Association of Dental Traumatology

LETTER TO THE EDITOR

Recently, the International Association of Dental Traumatology (IADT) has published the third update to the guidelines for management of traumatic dental injuries (1,2). Those guidelines as well as the online dental trauma guide are of utmost importance in helping dentists, as well as other healthcare providers and laypersons, to deal with various trauma-related dental conditions. While these guidelines provide updated and mostly evidence-based protocol, which is accepted worldwide (3), it should be remembered that management of an existed injury is often too late and requires complex and expensive treatment (4).

Despite the unquestionable importance of *secondary prevention*, that is the immediate or urgent diagnosis and treatment of existed condition before significant morbidity occurs, obviously the *primary prevention*, that is the primary avoidance of injury, is preferred, both clinically and economically. While protective measures are not mandatory and mostly are not in routine use, even by professional sportspersons (5,6) and other high-risk populations (7–9), it is important that the future set of IADT guidelines will include recommendations regarding primary prevention of traumatic dental injuries. The same way we are familiar with preventive guidelines regarding dental-related bacterial endocarditis (10,11), prevention of bisphosphonate-related osteonecrosis of the jaw (12) and other conditions, prevention of dental trauma should be a major concern in which official guidelines are needed. Thus, official recommendations of this group of world's leading experts will hopefully become the gold standard in prevention, as well.

These official guidelines would have a role in education of high-risk populations and their supervisors and healthcare providers. In a recent primary survey that we conducted among 61 dental surgeons, three-quarters of participants reported of a regular investigation for risk factors for dental trauma of their patients. Only about half of the dentists recommend the high-risk patients to use mouthguard, however – most commonly custom-made (Y. Zadik, and L. Levin, unpublished data). Those are, obviously, undesirably and even unacceptable results. As the duty of providing the

public with measures for the maintenance of proper oral health is of the dental profession, the responsibility of providing primary and secondary prevention of dental trauma is of dentists, dental hygienists and dental nurses (13). This role includes providing of knowledge and motivation to patients and communities, promotion of preventive measures such as mouthguard and face masks.

Our profession sometimes too busy dealing with improving our *treatment* results and abandon the *prevention* interventions, whereas the later should be the profession's main goal. Each and every patient entering our clinic should be engaged in a comprehensive and well-organized prevention program (14). Just as the dental profession has moved from mechanically *treating* established dental caries lesions toward *managing* the individual's risk factors for this disease, the new challenges of the profession are the recognizing high-risk individuals for dental trauma and manage risk factors. Publication of official evidence-based guidelines for primary prevention is a timely and important step in the right direction.

References

1. Diangelis AJ, Andreasen JO, Ebeleseder KA, Kenny DJ, Trope M, Sigurdsson A et al. International Association of Dental Traumatology guidelines for the management of traumatic dental injuries: 1. Fractures and luxations of permanent teeth. *Dent Traumatol* 2012;28:2–12.
2. Andersson L, Andreasen JO, Day P, Heithersay G, Trope M, Diangelis AJ et al. International Association of Dental Traumatology guidelines for the management of traumatic dental injuries: 2. Avulsion of permanent teeth. *Dent Traumatol* 2012;28:88–96.
3. Zadik Y, Marom Y, Levin L. Dental practitioners' knowledge and implementation of the 2007 International Association of Dental Traumatology guidelines for management of dental trauma. *Dent Traumatol* 2009;25:490–3.
4. Schwartz-Arad D, Levin L. Post-traumatic use of dental implants to rehabilitate anterior maxillary teeth. *Dent Traumatol* 2004;20:344–7.
5. Farrington T, Onambele-Pearson G, Taylor RL, Earl P, Winwood K. A review of facial protective equipment use in sport and the impact on injury incidence. *Br J Oral Maxillofac Surg* 2012;50:233–8.

6. Levin L, Friedlander LD, Geiger SB. Dental and oral trauma and mouthguard use during sport activities in Israel. *Dent Traumatol* 2003;19:237–42.
7. Matalon V, Brin I, Moskovitz M, Ram D. Compliance of children and youngsters in the use of mouthguards. *Dent Traumatol* 2008;24:462–7.
8. Zadik Y, Levin L. Orofacial injuries and mouth guard use in elite commando fighters. *Mil Med* 2008;173:1185–7.
9. Zadik Y, Levin L. Oral and facial trauma among paratroopers in the Israel Defense Forces. *Dent Traumatol* 2009;25:100–2.
10. Zadik Y, Findler M, Livne S, Levin L, Elad S. Dentists' knowledge and implementation of the 2007 American Heart Association guidelines for prevention of infective endocarditis. *Oral Surg Oral Med Oral Pathol Oral Radiol Endod* 2008;106:e16–9.
11. Wilson W, Taubert KA, Gewitz M, Lockhart PB, Baddour LM, Levison M et al. Prevention of infective endocarditis: guidelines from the American Heart Association: a guideline from the American Heart Association Rheumatic Fever, Endocarditis, and Kawasaki Disease Committee, Council on Cardiovascular Disease in the Young, and the Council on Clinical Cardiology, Council on Cardiovascular Surgery and Anesthesia, and the Quality of Care and Outcomes Research Interdisciplinary Working Group. *Circulation* 2007;116:1736–54.
12. Ruggiero SL, Dodson TB, Assael LA, Landesberg R, Marx RE, Mehrotra B. American Association of Oral and Maxillofacial Surgeons position paper on bisphosphonate-related osteonecrosis of the jaws – 2009update. *J Oral Maxillofac Surg* 2009;67:S2–12.
13. Levin L, Zadik Y. Education on and prevention of dental trauma: it's time to act! *Dent Traumatol* 2012;28:49–54.
14. Levin L. Prevention – the (sometimes forgotten) key for success. *Quintessence Int* 2012. In Press.

Liran Levin^{1,2}, Yehuda Zadik^{3,4}

¹Department of Periodontology, School of Graduate Dentistry, Rambam Health Care Campus, Haifa, Israel; ²Faculty of Medicine, Technion – Israel Institute of Technology, Haifa, Israel; ³Department of Oral Medicine, Hebrew University-Hadassah School of Dental Medicine, Jerusalem, Israel; ⁴Department of Oral Medicine, Oral and Maxillofacial Center, Medical Corps, Israel Defense Forces, Tel Hashomer, Israel

Thank you for your Letter to the Editor. The IADT guidelines have over the years focused on assisting colleagues in the emergency treatment of traumatic dental injuries and served that purpose very well for the emergency situation. You have very valid points on prevention of trauma and initiatives like yours guiding the society in the best ways for prevention of dental trauma are also very important. We need more research in this field and articles that can guide us how to best prevent dental trauma. So far there are numerous published articles on different types of mouth guards but getting people to use mouth guards more in various sports situations is apparently not that easy.

Often, this is very much an attitude problem that makes the research approach more complex. Research and review articles in this field are welcome, and your initiative of guidelines based on literature and best practice is interesting. I suggest you make a proposal to the IADT board to form a group working with prevention issues.

Lars Andersson
Editor in Chief

This document is a scanned copy of a printed document. No warranty is given about the accuracy of the copy. Users should refer to the original published version of the material.