
GUIDELINES FOR MANAGEMENT OF HYPERSENSITIVITY: EFFICACY OF PROFESSIONALLY AND SELF-ADMINISTERED AGENTS

GUIDANCE FOR DENTIST AND DENTAL HYGIENIST

These guidelines are the product of the XI European Workshop in Periodontology (the 'Prevention Workshop'), which took place in November 2014 in La Granja de San Ildefonso (Segovia), Spain. For further information, please see the Prevention Workshop website (prevention.efp.org). The full proceedings of the workshop were published in April 2015 in the Journal of Clinical Periodontology and can be downloaded (in pdf format) free of charge from: <http://onlinelibrary.wiley.com/doi/10.1111/jcpe.2015.42.issue-S16/issuetoc>. In addition, a podcast is available for viewing (at <http://efp.stream-congress.com>) in which the four co-chairmen of the Prevention Workshop discuss its conclusions and guidelines.

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DENTINE HYPERSENSITIVITY IS DEFINED AS THE SHORT, SHARP PAIN ARISING FROM EXPOSED DENTINE IN RESPONSE TO STIMULI, TYPICALLY THERMAL, EVAPORATIVE, TACTILE, OSMOTIC AND CHEMICAL, WHICH CANNOT BE ASCRIBED TO ANY OTHER FORM OF DENTAL DEFECT OR PATHOLOGY. IN ITS AETIOLOGY THE DENTINE SURFACE NEEDS TO BE EXPOSED, TOGETHER WITH THE PRESENCE OF OPENED DENTINAL TUBULES, WHICH ARE PATENT FROM THE DENTINE SURFACE TO THE PULP.

Dentine hypersensitivity is associated with gingival recession, traumatic toothbrushing and/or frequent acidic dietary challenge to the hard tissue.

Two modes of action are commonly applied in the treatment of dentine hypersensitivity: (1) dentine tubule occlusion with resistance to removal by acidic challenges; (2) modification or blocking of pulpal nerve response. Dentifrices with active agents that have shown an effect on pain reduction are: arginine, calcium sodium phosphosilicate, stannous fluoride and strontium. There are, however, other available self-applied agents with minimal evidence of effectiveness. Professionally applied products are effective in the treatment of dentine hypersensitivity; however, there is insufficient evidence that one specific agent is superior to another.

RECOMMENDATIONS

- Before implementing any specific treatment, the oral-healthcare professional should first confirm the diagnosis of dentine hypersensitivity.

Following this, the potential aetiological factors should be addressed:

- Recording a diet and medical history to assess frequency of exposure to acid. Appropriate advice should be given and referral may be required.

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RECOMMENDATIONS

- Appropriate instruction in self-performed plaque control, including techniques, frequency and timing (avoid brushing straight after an acidic challenge).
- Avoid factors contributing to gingival recession (such as traumatic toothbrushing).

The next step should be the management of the dentine hypersensitivity and depending on its severity:

- Use of self-applied agents with proven efficacy.
- Use of professionally applied agents with proven efficacy.
- When appropriate the treatment of gingival recession by root-coverage surgical procedures.