

FDI policy statement on dental bleaching materials

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FDI World Dental Federation

FDI World Dental Federation, Geneva, Switzerland.

INTRODUCTION

For the purpose of this Statement, dental bleaching materials are peroxide-containing materials that are intended to remove intrinsic and/or extrinsic tooth discolorations. Professional in-office tooth bleaching products have been used in dentistry for more than a century. In contrast, at-home tooth bleaching products intended for patient use under limited professional supervision were introduced in 1989. There are two types of professional bleaching systems currently available for treating natural teeth: (1) in-office bleaches prescribed by dentists; (2) products that are issued to patients for in-home use under the dentists' supervision. Currently, the most commonly used professional formulations are gel preparations of hydrogen peroxide or carbamide (urea) peroxide.

In recent years a variety of over-the-counter products, formulations and delivery systems have been introduced to the profession and general public. There is ongoing controversy and confusion as to whether bleaching products should be regulated as cosmetic or therapeutic devices, or if dental bleaches should be sold over-the-counter or used without direct professional supervision.

STATEMENT

FDI supports the appropriate use of dentist-prescribed and -supervised tooth bleaching procedures. Dentists must complete a comprehensive examination to assess the patient's oral health conditions, treatment needs and desires before initiating any tooth-bleaching treatment. Peer-reviewed studies indicate that peroxide-containing tooth bleaching products are safe and effective when used under the supervision of a dentist

and according to the professional directions for use. This technique is the practice of dentistry and should not be performed by those who are not dental professionals. On the grounds of public safety, the over-the-counter sales of these products is not supported

Dentists and patients should consider the following:

- Products vary in formulation, concentration, dosage and the method of treatment
- To maximize benefits and minimize risks, individuals should seek professional guidance to determine if bleaching is suitable for their specific condition(s)
- The most common side-effects from tooth bleaching are transient tooth sensitivity and soft tissue irritation during or immediately following treatment
- High-concentration hydrogen peroxide products should not be used without gingival protection
- For nightguard home vital bleaching, the use of minimal amounts of low-dose hydrogen/carbamide peroxide is preferred, which is facilitated by the use of custom-made trays which reduce both the amount used and swallowed
- Activation of bleaching agents by heat, light or laser remains controversial and dentists should continue to review the evidence base for these procedures, as they may have an adverse effect on pulpal tissue
- The long-term effects from higher concentrations (> 6% H₂O₂ or equivalent) of bleaching agents on the dental pulp, dentine, enamel and oral soft tissues are not fully understood. They have the potential to cause harm and should be used with caution and only in the dental surgery.

REFERENCES

1. Buchalla W, Attin T. External bleaching therapy with activation by heat, light or laser – a systematic review. *Dent Mater* 2007 23: 586–596.
2. Dahl JE, Pallesen U. Tooth bleaching – a critical review of the biological aspects. *Crit Rev Oral Biol Med* 2003 14: 292–304.

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3. Joiner A. The bleaching of teeth: a review of the literature. *J Dent* 2006 34: 412–419.
4. Tredwin CJ, Naik S, Lewis NJ, Scully C. Hydrogen peroxide tooth-whitening (bleaching) products: review of adverse effects and safety issues. *Br Dent J* 2006 200: 371–376.
5. Scientific Committee on Consumer Products. SCCP OPINION ON Hydrogen peroxide, in its free form or when released, in oral hygiene products and tooth whitening products. 2007, Brussels.

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