Ask the Experts

IN-OFFICE BLEACHING

Guest Editor Bruce R. Matis, DDS, MSD*

QUESTION: We are hearing so much about in-office bleaching procedures. What science-based evidence is there about their effectiveness?

ANSWER: A recent survey reported that 48% of dentists in the United States provide in-office bleaching services. Although this degree of use implies effectiveness, there is always a question of scientific support of the claims made by manufacturers for various in-office products and techniques.

In-office bleaching was the first accepted method of lightening teeth. As at-home bleaching materials were developed, they gradually supplanted in-office techniques in a high percentage of practices. Recently, however, there has been a marked increase in advertising and promotion of in-office bleaching, with particular emphasis on the application of light to enhance the procedure.

Numerous studies have indicated that the use of light activation has almost no effect on the lightening procedures with various in-office materials.^{2–4} Only one published clinical study has compared the efficacy of at-home versus in-office bleaching.⁵ It compared an in-office bleaching product with an at-home product, both of which had been accepted by the American Dental Association (ADA). The at-home product, used for 2 weeks, was significantly more effective than the in-office product, which was applied three times at three separate appointments.

In our Clinical Research Section at Indiana University School of Dentistry, we have accomplished a pilot study on eight of the most frequently used in-office products. None of the in-office products was as effective, at any point in time, as an ADA-accepted 10% carbamide peroxide at-home product used overnight for 2 weeks.

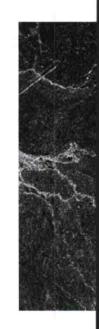
Surveys have been conducted to determine respondents' acceptance of in-office and at-home bleaching procedures. Dental practitioners surveyed responded that 73% of those who had at-home treatments were "very satisfied" with the results. In contrast, only 40%

were "very satisfied" with the results of in-office bleaching.¹

Is there a place for the in-office bleaching procedure? Of course! It is an acceptable method of bleaching for those patients who need rapid whitening of their teeth or for those who do not want to use trays, strips, or paint-on products. However, when dentists perform an in-office bleaching procedure, they should recommend the subsequent use of an ADA-accepted at-home product to boost the bleaching result and charge accordingly.

REFERENCES

- Weisman G. A bright future: a survey report. Dent Products Rep 2002; 36(11): 22–28.
- Clinical Research Associates. New generation in-office vital tooth bleaching, part 1. Newsletter 2002; 26(10):1–3.
- Clinical Research Associates. New generation in-office vital tooth bleaching, part 2. Newsletter 2003; 27(3):1–3.



- Kugel G, Papathanasiou A, Williams AJ III, Anderson C. Clinical evaluation of two different in-office tooth whitening systems. J Dent Res 2003; 82(SI-B)B125. (Abstr 897)
- Zekonis R, Matis BA, Cochran MA, Al Shethri SE, Eckert GJ, Carlson TJ. Clinical evaluation of in-office and at-home bleaching treatments. Oper Dent 2003; 28:114–121.

Editor's Note: If you have a question on any aspect of esthetic dentistry, please direct it to the associate editor, Edward J. Swift Jr, DMD, MS. We will forward questions to appropriate experts and print the answers in this regular feature.

Ask the Experts
Edward J. Swift Jr, DMD, MS
Department of Operative Dentistry
University of North Carolina, CB #7450, Brauer Hall
Chapel Hill, NC, USA 27599-7450
Telephone: 919-966-2770; Fax: 919-966-5660

E-mail: Ed_Swift@dentistry.unc.edu

^{*}Professor, Department of Restorative Dentistry, Indiana University School of Dentistry, Indianapolis, IN, USA ©2004 BC Decker Inc

Copyright of Journal of Esthetic & Restorative Dentistry is the property of B.C. Decker Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.