# Talking with Patients

## **In-office Tooth Bleaching**

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#### WHAT IS IT?

Tooth whitening (or tooth bleaching) has become increasingly popular in the last 15 years because of the introduction of simple, conservative, and effective ways for treating stained and/or yellowed teeth. Talking with Patients has addressed tooth whitening in general and over-the-counter tooth whitening in previous issues (JERD 13-1 and 15-3, respectively). The term *in-office* tooth bleaching refers to tooth whitening procedures that are completed in a dental office under close supervision of a dentist. In-office bleaching is done by applying a concentrated bleaching agent, typically a gel, to the affected teeth for several minutes. The application can be repeated a few times at the same visit, and several visits are usually required to achieve the desired result, depending on the nature and severity of the discoloration.

### WHEN IS IT NEEDED?

In-office tooth bleaching can be used as a tooth whitening treatment modality for teeth that are naturally yellow, for root canal-treated teeth that darken or discolor, for teeth that have yellowed or darkened because of aging, and for teeth stained as a result of the use of various medications (such as for mild tetracycline-stained teeth). All of these conditions can also be treated with other tooth whitening techniques, but in-office bleaching is especially recommended for patients that prefer a more immediate result, and for those who prefer not to use a bleaching device (such as a bleaching tray) at home. However, in-office bleaching is much more expensive, costing as much as three to five times more than athome tray bleaching and 30 to 50 times more than the cost of overthe-counter whitening strips or paint-on whiteners.

In-office bleaching is generally accomplished using stronger bleaching agents than those used for home bleaching. Therefore, the risks for tooth sensitivity are higher with in-office bleaching. Also, because the strong bleaching agents can be caustic to the gums, the soft tissues must be protected with either a rubber dam or a special isolation material to avoid contact of the bleaching agent with the gum tissues.

Special lights (including lasers) and other heat-generation devices are marketed as accessory tools for inoffice bleaching. They may expedite treatment; however, to date, there is no credible scientific evidence that shows that these devices significantly improve the final bleaching results.

#### CONCLUSIONS

In-office bleaching is a tooth whitening treatment modality performed in the dental office under the supervision of a dentist. Most dental discolorations that are treated with home bleaching can also be treated with in-office bleaching. The advantages of inoffice bleaching include more immediate results independent of patient compliance. However, inoffice bleaching is not necessarily more effective than home bleaching, is far more costly, and the strong bleaching agents used can cause tooth sensitivity and gum irritation.

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(The following pictures illustrate a clinical case where in-office bleaching was done on the upper front teeth. Note that the whitening in the postbleaching picture is enhanced by slight dehydration, which is common immediately after in-office bleaching [Figures 1 and 2].)



Figure 1. Before in-office bleaching (courtesy of Dr. Ed Swift, University of North Carolina-Chapel Hill).



Figure 2. After in-office bleaching (courtesy of Dr. Ed Swift, University of North Carolina-Chapel Hill).

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