

## TOOTH BRIGHTENING

### PROBLEM/SOLUTION

A prosthodontist is a specialized dentist with advanced training in oral health issues such as whitening teeth. There are many products to consider when choosing a tooth brightening agent. We are experts in helping patients choose the appropriate bleaching method for them.

Tooth whitening products are available in many forms. The two major groups are peroxide-containing bleaching agents and whitening toothpastes. In general, the higher concentration of bleach and the longer the bleaching agent is on the tooth surface, the more brightening.

Carbamide peroxide is used in many bleaching agents, and works by decomposing to release hydrogen peroxide which is the active bleaching agent. A bleaching product from your dentist typically contains 10% carbamide peroxide, whereas over the counter products are lower in concentration and will need more applications to get the desired effect.

### TALKING POINTS

#### 1. Choosing an Over the Counter Product:

Most whitening toothpastes contain abrasive particles which aid in the removal of surface stains on the teeth, but these are not very effective on removing the stain particles that are deeper into the tooth surface. These abrasive particles can have a damaging effect on certain tooth structure, so it is important to ask your prosthodontist before using this type of toothpaste.

Whitening rinses are available, but due to the limited time these rinses are contacting the tooth surface, they have been shown to have very little results.

Whitening chewing gums have water-soluble products that are released as the gum is chewed, and since they are very low in concentration, the effects may not be comparable to other methods.

Whitening strips are available with one of the highest concentrations of peroxide you may find over-the-counter. These strips have been shown to be one of the most effective methods of bleaching with an over-the-counter product. One study showed in order to lighten by 6 shades, in office bleaching took 3 cycles, at home prescription trays took 7 cycles, and over-the-counter bleaching strips took 30 cycles. Another drawback to over the counter strips is the excessive amount of bleach that is introduced to the patients mouth. A prosthodontist fabricates a prescription tray that allows the patient to use the ideal amount of bleaching material while minimizing the excess bleach that might be swallowed or allowed to sit on the gums and cause irritation.

#### 2. As a Prosthodontist, I recommend following the proper guidelines and using the available treatment methods to accommodate to your particular needs. For example, if you are someone who will not be compliant with wearing the bleaching trays at home for a two week period, then you are probably better off having what's known as in-office or power bleaching. If you are dealing with increased sensitivity or have sensitive teeth to begin with, you should start using a

desensitizing tooth paste prior to initiating treatment. There are also products that can be applied inside the bleaching trays that control very effectively the sensitivity.

3. Are you a candidate for tooth whitening?  
Consult with your prosthodontist to determine the most appropriate whitening treatment, especially if you have tooth sensitivity, dental restorations, a single dark tooth, or haven't seen a dentist for over a year. If you have fillings, caps, dental implants, or any other type of restoration, you should consult with your prosthodontist before whitening your teeth. Whitening products will not brighten these restorations, and this may result in a patchwork smile if these restorations are not replaced after whitening. Some patient's discoloration may be caused by a specific problem that will not be effectively whitened by bleaching, and a prosthodontist can help provide alternative solutions for these patients.

Also, some restorations may be affected by bleaching - roughness, crack development, weakening of bond to tooth - and a prosthodontist can help identify these before starting.

4. What are the side effects?  
As a prosthodontist, I care about preserving one's natural tooth structure, and here's what I tell my patients:
  - Teeth do not get weaker or brittle after whitening;
  - Whitening does not dissolve the enamel;
  - No long term detrimental effects to teeth happen after whitening.

The most common complaints that people have with whitening is tooth sensitivity. This occurs in 2/3 of patients - (caused by peroxide traveling through enamel to pulp) and it typically goes away once treatment is completed. This depends on the person and what kind of state their teeth are in, so it is important to have a prosthodontist do a thorough exam prior to whitening to see if you have any recession or abrasions on your teeth that can make whitening more sensitive.

Another side effect can be gum irritation caused by prolonged contact with the whitening product. So the amount used and type of delivery system should be considered. Using a customized tray made by your prosthodontist will hold the product in place and will prevent the material from contacting the gum tissue. Before in-office bleaching, there are gel products that are applied to the gums before treatment so that the gum tissue is protected.

5. The best way to maintain your whitened teeth is to visit your prosthodontist regularly for cleanings and checkups and do touch up treatments as needed. The average length of the whitening results is 2 years. However, this will depend on the type of foods you eat, certain habits such as smoking and proper home care. Touch ups are easy and usually require just a few days of treatment.