

# Patients' Top 10 Preventive Dentistry Questions

During your scheduled appointments for dental examination, cleaning, and treatment, your dentist and hygienist routinely ask you questions about your oral health and home care practices. These visits are also the perfect time for you to ask questions about your dental care needs.

## 1. How often should I have my teeth cleaned?

Research shows that regular professional cleaning may reduce the risk of dental caries (cavities) and periodontal (gum) diseases, and most people like to have their teeth cleaned once or twice a year. Some dental conditions require more frequent monitoring and intervention; some require less. How often you go depends on your personal dental health needs. You should discuss this with your dentist.

## 2. What type of dental floss should I use – waxed or unwaxed?

Research comparing waxed and unwaxed floss revealed that it really doesn't matter which type floss is used; rather, it's using the proper flossing technique that makes the difference. Proper flossing removes plaque and food particles from areas not reached by a toothbrush. However, studies show we don't floss that well. We have a tendency to floss on the back side of a tooth better than the front side; we floss the front teeth better than the back teeth, and we do better at flossing near the chewing surface of the tooth than at the gum line. So, use either waxed or unwaxed floss, but, be meticulous, practice technique, and floss at least once each day.

## 3. How often should I brush my teeth? What kind of toothbrush should I use?

Regular brushing is vital to maintaining optimal oral health. Traditionally, we recommend brushing after every meal to eliminate the cavity challenge. The carbohydrates in foods and drinks feed the bacteria in the mouth, and these oral bacteria produce acids that can lead to dental caries (cavities). By brushing with fluoride toothpaste after every meal, you reduce the extent of acid production and reduce your chances of developing caries. One caution, however – for those patients who eat several small meals (as some dieticians recommend), rather than the traditional three meals per day – brushing more than 5-6 times per day may (for some patients) increase the risk of damage to the enamel of the teeth (“toothbrush abrasion”). For those patients, and the bottom line minimum for all patients, we advise brushing at least twice a day, especially before bedtime, since the saliva flow decreases during sleep, and any remaining food particles provide a great environment for those oral bacteria to thrive.

With so many shapes, sizes and styles of toothbrushes on the market, choosing the right toothbrush can be confusing. Here are a few things to consider when choosing a toothbrush. Be sure to use a toothbrush with round, soft nylon bristles. Toothbrushes with medium to hard bristles can be abrasive enough to damage the enamel. As far as bristle configuration, research suggests that no one particular configuration of bristles is better than another for removing plaque and food particles from teeth. So, go ahead and clip the store coupon and get the best buy on your favorite style and color.

#### 4. Are electric toothbrushes better than manual brushes?

Both manual and power toothbrushes are effective, but studies have shown electric and sonic toothbrushes, if used properly, can perform better than manual toothbrushes. The key is to use the toothbrush that best meets your needs. For example, people with arthritis or limited dexterity may find an electric toothbrush especially helpful. People with orthodontic braces may find it easier to brush effectively with an electric toothbrush; and since the rotating head of a powered toothbrush requires less force and manipulation than a manual toothbrush, the risk of dislodging orthodontic appliances might be reduced.

#### 5. What is a good toothpaste? Do I need fluoride, baking soda, whiteners, and flavors?

A good toothpaste is one that has the American Dental Association (ADA) Seal of Acceptance on the package. This seal signifies that the manufacturer has provided scientific evidence that the product does what it claims to do. The ADA recognizes five categories of toothpastes: “anti-cavity,” “anti-cavity & anti-calculus (tartar control),” “anti-cavity & desensitizing,” “anti-cavity, anti-plaque/anti-gingivitis, & anti-calculus,” and “whitening.”

Toothpaste formulations and chemistry are very complex, and each manufacturer has its own variations, but the primary ingredients remain the same. The most important ingredient is fluoride to prevent dental caries. Over 95% of the toothpastes sold in the U.S. contain an ADA-accepted fluoride formulation. So, in addition to the name brands (Crest, Colgate, etc.), even most store brands (Kroger, Target, etc.) are effective anti-cavity products.

Toothpastes also contain foaming agents, such as soaps or detergents, and mild abrasives, usually silica or a calcium phosphate compound, to help remove plaque and minor stains. In spite of its gritty texture, baking soda is actually an extremely mild abrasive – very kind to tooth structure – that also exhibits some anti-bacterial properties. Toothpastes that advertise improved stain removal (“smokers’ toothpastes”, etc.) usually contain harsher abrasives that, if overused, can damage the enamel. Flavoring agents are important for marketing – people want a product with a pleasant flavor.

Toothpastes that whiten teeth work by chemically or mechanically removing surface stains. The “whitening” agents are special abrasives, detergents, or enzymes. These products should not be confused with bleaching agents (usually peroxide compounds) that work by breaking down pigment to remove color from teeth. This category of toothpastes has received ADA acceptance only within the past three years or so. Currently, there are only seven products that have received the ADA Seal as whitening toothpastes. Each of them contains fluoride as an anti-cavity agent, and five are also accepted for tartar control. As for the whitening properties – there hasn’t been much independent research published yet. These products are safe and appear to be fairly good at removing surface stains. However, they will not change the overall color of teeth. They don’t claim to deliver the “Hollywood smile,” so patients shouldn’t expect too much.

## 6. Do bleaching products really work?

Yes, they do. But, consult with your dentist first, because the procedure isn't always as simple as many people believe. Tooth color is influenced by many factors, including previous trauma to the teeth, exposure to certain medications, drinking tea or coffee, smoking, and the natural aging process. Not all teeth respond equally well to bleaching. In general, bleaching is more successful on lighter (yellow) colorations than on darker (gray/brown) colorations; and bleaching will not lighten existing dental restorations, such as tooth-colored fillings, bonding, crowns or bridges. Before bleaching, it is important to consider how much of your existing dental work will have to be replaced following bleaching in order to achieve the desired results. Your dentist can determine if you are a good candidate for bleaching.

## 7. I live on base. Is there fluoride in the water?

This is not a simple yes or no answer. Since the DoD does not mandate fluoridation of base water supplies and military bases in the United States frequently obtain their water from community water supplies, the fluoride content of the base water is often dependent on the local community's water supply.

If you want to know the fluoride content of the water in your community, contact the Public Works Department on base or the local municipal water commission. They can tell you their required fluoridation level and can provide details on the high, low, and average levels for the year, the month, and the day.

Depending on the geographic area, the level of naturally occurring fluoride in the water supply can range from 0 to more than 5 parts per million (ppm). The ADA recommends one part per million. Keep in mind that not all communities have fluoridated water or adjust their water to optimal fluoride levels. Well water, in particular, can be quite variable even within the same geographic location.

## 8. Does bottled water contain fluoride?

Fluoride is the single most effective means to prevent dental caries in both children and adults. We get fluoride from many sources, including foods and beverages, professional fluoride applications at our dental visits, and, most importantly, toothpaste and drinking water. However, there is concern that drinking bottled water instead of fluoridated tap water may result in insufficient fluoride exposure, which could increase the risk of dental caries.

The fluoride content in bottled water and beverages (everything from soft drinks to fruit juices) can vary from less than 0.01 ppm to over 5 ppm, and will mirror the level of fluoride in the water at the place of manufacture. So, if a diet soda is bottled in suburban Washington, DC, or any other optimally fluoridated community, it probably contains about 1 ppm of fluoride. Currently, the FDA limits the fluoride content of bottled waters to 2.4 ppm (if no fluoride is added during processing) and 1.4 ppm (if the manufacturer adds fluoride). However, since the FDA has not defined a nutrient content claim for fluoride, bottled water manufacturers are required to list fluoride content on their labels only if fluoride is added during processing.

## 9. Does my home water filter remove fluoride from the water?

There are many different types of home water treatment systems, and, unfortunately, there is not a large body of research regarding their effects on fluoridated water. Although the research is often conflicting and unclear, in general, the more heavy duty the filter, the more likely fluoride could be filtered out. Several studies have shown that reverse osmosis systems and distillation units remove significant amounts of fluoride, while water softeners and water conditioners do not alter water fluoride levels. With water filters, the fluoride concentration remaining in the water depends on the type and quality of the filter, as well as its age. Some activated charcoal filters containing activated alumina may remove significant amounts of fluoride. Each type of filter should be assessed individually. Testing is available through local and state public health departments and some private laboratories.

## 10. My fifteen year-old son wants to pierce his tongue. Should I be concerned?

Oral piercing seems to be a popular fashion statement for some young people. Your son needs to be aware of several risks associated with oral piercing. First, the tongue is highly vascular and bleeds when cut, so there is a risk of hemorrhage. There is also a risk of nerve damage, swelling, localized infection, and systemic infection (tetanus, hepatitis, HIV), particularly if the piercing establishment doesn't follow strict infection control procedures. After the piercing, he must be committed to removing and cleaning the appliance at least once a day to prevent bad breath and swelling and infection from an overgrowth of bacteria and fungi. However, he must also realize that when the appliance is removed, the opening will start to heal and close in a matter of hours, so the appliance may be difficult to reinsert. Most importantly, he must be aware of the substantial risks of cracked and broken teeth, gingival recession, impaired speech, and the possibility that he could swallow or aspirate the appliance. If all this fails to discourage him, remind him that the piercing will probably be done without anesthesia....

Additional information may be found at the American Dental Association's website ([www.ada.org](http://www.ada.org)).

CAPT Diefenderfer welcomes questions and comments. He may be reached via e-mail at [Kim.Diefenderfer@nhgl.med.navy.mil](mailto:Kim.Diefenderfer@nhgl.med.navy.mil) or via telephone at (847) 688-3331 (Fisher Health Clinic, Naval Hospital, Great Lakes, IL).

CAPT Kim E. Diefenderfer, DC, USN, the Navy Specialty Leader for Preventive Dentistry, has noted the questions patients have asked over the years and has come up with answers to some of the most common ones. Combining his interest in patient care and research, CAPT Diefenderfer has shared his Qs&As with military and civilian dentists in MEDNEWS, Navy Medicine Online, and many continuing education seminars throughout the U.S.