

# Word<sup>d</sup> OF MOUTH<sup>®</sup>

A SEMIANNUAL PUBLICATION OF THE MASSACHUSETTS DENTAL SOCIETY

Winter - Spring 2020

## TEETH WHITENING: FACT VS. FICTION





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The Massachusetts Dental Society (MDS) is pleased to make this publication available to our member dentists as a way of communicating important oral health information to their patients.

Information in WORD OF MOUTH articles comes from dental health care professionals of the MDS and other leading professional dental organizations, including the American Dental Association. If you have any questions about specific content that may affect your oral health, please contact your dentist. For more information regarding oral health, please visit the Public Resources section of the MDS website at massdental.org.

Your comments and suggestions regarding WORD OF MOUTH are always welcome. All correspondence and requests for additional copies may be sent to:

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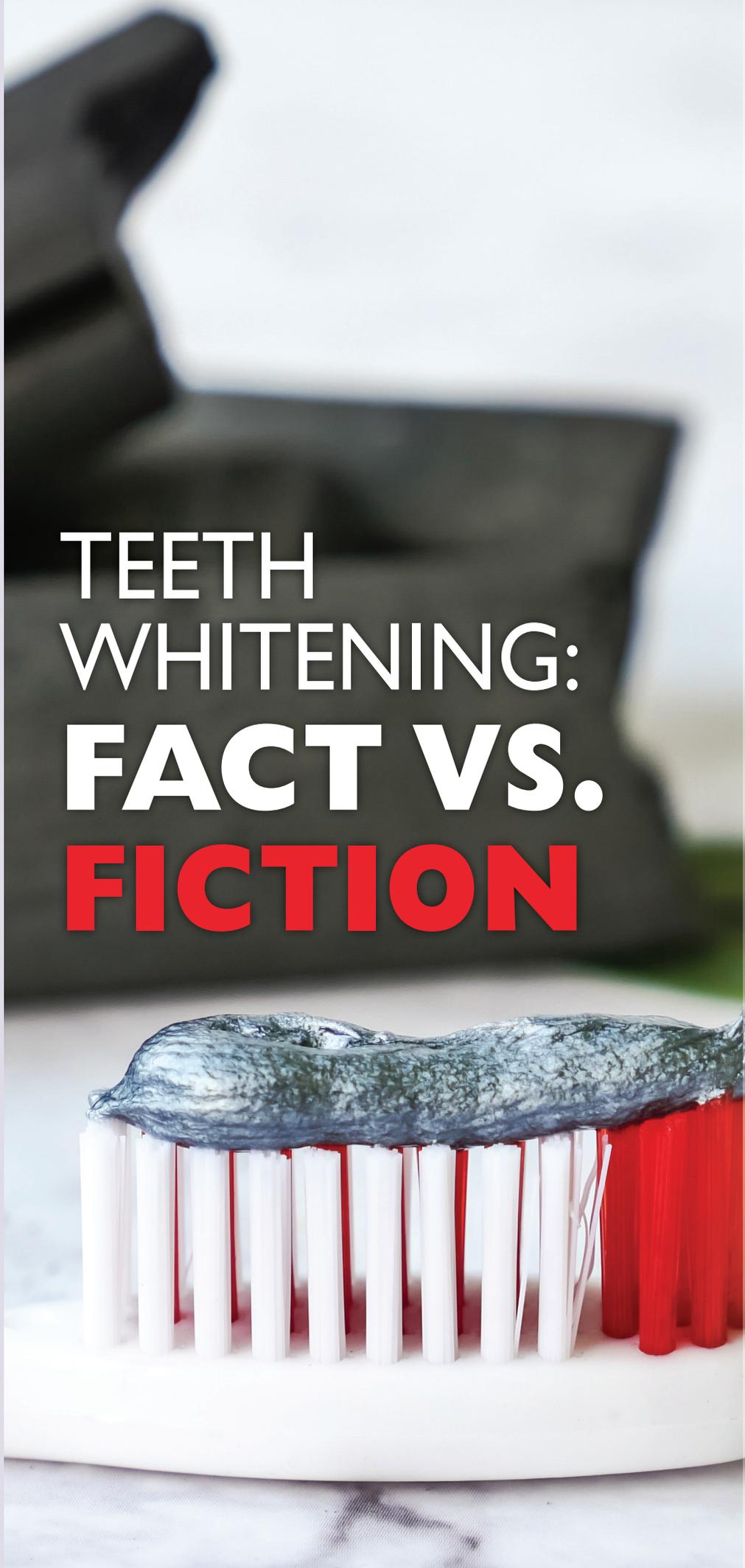
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# TEETH WHITENING: FACT VS. FICTION



**N**othing beats the confidence that comes with a sparkling white smile. Brushing your teeth for at least two minutes twice a day, flossing daily, and visiting your dentist regularly for checkups and cleanings will help keep your teeth clean and healthy. So will limiting foods that stain your teeth—like coffee, tea, and red wine—and not smoking or using tobacco. Exposed dentin, in addition to looking yellow, can cause sensitivity and make the tooth more prone to cavities.

Still, many people are looking for additional ways to combat stained or yellow teeth and achieve a brighter smile. From at-home whitening kits to natural ingredients found in your kitchen, there is no shortage of methods featured online and in magazines. But do they work? And are they safe?

Here's what you need to know to separate fact from fiction:

**FICTION: Any tooth can be whitened.**

**FACT:** Whiteners may not correct all types of discoloration. For example, yellow teeth will probably bleach well, brown teeth may not respond as well, and teeth with gray tones may not bleach at all. Whitening will not work on teeth with bonding, veneers, or crowns, and it won't change the color of dental fillings. It also won't be effective if the discoloration is caused by medications or a tooth injury.

**FICTION: Activated charcoal scrubs will whiten your teeth.**

**FACT:** Despite the growing popularity of health and beauty products containing activated charcoal, there is no evidence that dental products with charcoal are safe or effective for your teeth, according to the *Journal of the American Dental Association*. In fact, using materials that are too abrasive on your teeth can make them appear more yellow. Enamel is what you're aiming to whiten, but if a scrub is too rough, you can wear the enamel away. When that happens, the next layer of your tooth can become exposed—a softer, yellow tissue called dentin.

Instead, look for whitening toothpastes that have earned the American Dental Association (ADA) Seal of Acceptance for stain removal. These toothpastes have additional polishing agents that are safe for your teeth and provide stain removal effectiveness. However, unlike bleaches, these types of ADA Accepted products do not change the color of teeth because they can only remove stains on the surface.

**FICTION: Swishing oils (like coconut oil) in your mouth—sometimes called oil pulling—can help whiten your teeth.**

**FACT:** An ancient folk remedy originating in India and southern Asia, oil pulling—the practice of swishing or “pulling” plant-based oils such as coconut, sesame, and olive through the teeth and mouth for anywhere from 1–5 minutes to up to 20 minutes or longer—is believed to whiten teeth and improve oral health and overall health. However, while these oils might be great for cooking a healthy meal, there is no reliable scientific evidence to show that oil pulling whitens teeth.

**FICTION: There are no at-home bleaching options approved by dentists.**

**FACT:** With in-office bleaching, your dentist can apply bleach to whiten your teeth, usually in just one office visit. But your dentist also can provide a custom-made tray for at-home whitening, with instructions on how to place the bleaching solution in the tray and for what length of time. This may be a good option if you'd like the comfort of whitening at home at a slower pace (a few days to a few weeks), but under the guidance of your dentist. You may also see over-the-counter bleaching products sold online or in your local grocery store, such as toothpaste or whitening strips; however, the concentration of the bleaching agents in these products is generally lower than what your dentist would use in the office. If you are thinking about using one of these options, look for one with the ADA Seal of Acceptance, which means the product has been tested to be safe and effective for teeth whitening.

**FICTION: There are no potential side effects from teeth whitening.**

**FACT:** Some people who use teeth whiteners may experience tooth sensitivity. This can happen when the peroxide in the whitener gets through the enamel to the soft layer of dentin and irritates the nerve of your tooth. In most cases, the sensitivity is temporary, and the whitening treatment can be delayed and then resumed. One caution: Overuse of whiteners can damage the tooth enamel or gums, so be sure to follow directions and talk to your dentist.

**THE BOTTOM LINE?**

Whitening may not work for all teeth, and some methods—whether at home or at the dental office—may be better than others. Talk to your dentist about which whitening options would be safe and effective for you.



# MARIJUANA AND YOUR ORAL HEALTH

In 2016, Massachusetts voters legalized the recreational use of cannabis (more commonly known as marijuana), and since late 2018, more than 30 marijuana retail establishments have opened around the state for recreational sales. (Medicinal marijuana was approved in Massachusetts in 2012 for patients seeking to counter the side effects of debilitating medical conditions, such as cancer, glaucoma, and Parkinson’s disease.) Dental patients may be accustomed to sharing their medical and health history with their dentists, including a list of all medications and supplements taken, as these can impact oral health. With the legalization of marijuana in the Bay State, it is important for dentists and their patients to discuss marijuana use in any form (e.g., smoking, edibles, concentrate, etc.), because there are potential oral health impacts and various dental treatment considerations.

## **ORAL HEALTH IMPACTS**

According to the American Dental Association, potential oral health impacts of smoking marijuana include

periodontal complications, xerostomia (dry mouth), and leukoplakia, as well as an increased risk of mouth and neck cancers. The long-term oral effects of marijuana use are unknown, due to a lack of controlled studies, though that may be changing soon with more research being conducted given the legalization of marijuana in more states across the country. However, the main health concerns associated with marijuana are related to the act of inhaling smoke from burned plant material and contaminants. Like tobacco smoke, marijuana smoke is associated with increased risk of cancer, lung damage, and oral health diseases—such as oral cancers, dental caries (cavities), and periodontitis, which is advanced gum disease that damages the soft tissue and destroys the bone supporting the teeth. Marijuana users are also prone to oral infections, possibly due to its immunosuppressive effects.

## **DENTAL TREATMENT CONSIDERATIONS**

If you consume marijuana, it is important to let your dentist know. A patient under the influence of medicinal

or recreational marijuana presents unique implications for dental care:

- Increased anxiety, paranoia, and hyperactivity may heighten the stress of a dental visit.
- Increased heart rate and other cardiorespiratory effects of cannabis make the use of local anesthetics containing epinephrine or products containing alcohol potentially life-threatening.
- Patients who use marijuana before a dental procedure requiring local anesthesia may not get numb in the area.
- Under general anesthesia, the use of cannabis has been shown to increase the likelihood of cardiac arrhythmias and respiratory depression. It is advised that cannabis use be ceased 72 hours prior to the use of general or regional anesthesia.
- Smoking marijuana before or after surgical procedures could result in increased risk of dry socket, implant failure, pain, and infection, along with prolonged healing time.

- Marijuana interacts with many common prescription and over-the-counter medications, herbs, and supplements.
- Marijuana may compromise the user's judgment, short-term memory, and attention span, which could impact a patient's communication with dental practitioners.
- There may be legal implications regarding the validity of informed consent, especially with irreversible procedures such as tooth extractions.

Because of these concerns, dentists may refuse to treat a patient under the influence of marijuana or postpone non-emergency treatment for at least 24 hours.

Patients who use marijuana should be aware of its effects and take steps to protect their oral health, including adopting good oral hygiene and scheduling routine dental visits. They should also alert their dentist to their use of marijuana so that he or she can be aware of and look out for any added oral issues.



## WHAT ABOUT CBD?

The legalization of marijuana has seen an uptick in the United States, with Politico estimating that more than 40 states will allow some form of legal marijuana by the end of 2020. And in the last couple of years, a marijuana offshoot—cannabidiol (CBD)—has also had a surge in popularity, with CBD and CBD-infused products—in the form of tinctures, edibles, and lotions—marketed as a “miracle cure” for a variety of health issues, including anxiety, chronic pain, and insomnia. Social media is rife with celebrities and “influencers” touting the health and beauty benefits of CBD in everything from capsules and gummies to facial serums and foot creams. CBD is even being marketed for pets, with claims that it can relieve dogs’ and cats’ aches and anxiety. A recent article in the *New York Times* indicated that the CBD industry is projected to climb to \$16 billion by 2025 in the United States alone. With more and more Americans jumping on the CBD bandwagon every day, this prompts the question, are there any health risks associated with CBD?

CBD is a chemical found in marijuana; however, it does not contain the psychoactive properties of tetrahydrocannabinol (THC), the cannabinoid in marijuana that produces a “high” state in marijuana users, according to Harvard Health Publishing. The absence of psychotropic effects has led many consumers to believe that CBD is safe to take. It's

important to note, however, that the Food and Drug Administration (FDA) has only approved one CBD product, Epidiolex, a medication used to treat severe forms of epilepsy. What's more, the FDA warns that due to the limited data currently available on the safety of CBD, consumers should be aware of its potential risks, which include liver injury, gastrointestinal distress, mood changes (e.g., irritability and agitation), and contraindications with other medications.

Another concern is that CBD products are being marketed with unproven medical claims and produced using unsafe manufacturing practices, according to the FDA. Unapproved CBD products are currently not subject to FDA oversight and therefore are not evaluated for effectiveness; proper dosage; interactions with other medications, supplements, or food; side effects; or other safety concerns. Even more alarming is that the FDA questions the quality of many CBD products. After testing the chemical content of cannabinoid compounds in some CBD products, the agency found that many did not contain the levels of CBD they claimed. There are also reports of CBD products containing unsafe levels of contaminants, such as pesticides.

If you are using CBD, you want to be sure to let your health care providers—including your dentist—know all medications and supplements you are taking, so they can advise you on any possible risks, interactions, or treatment concerns. In the meantime, until comprehensive research is conducted and analyzed, the merits and safety of CBD are still TBD.

# YEAR-ROUND TIPS FOR BETTER ORAL HEALTH

**T**o many people, the start of a new year means the chance for a fresh start. They kick off January committed to resolutions for the New Year, which run the gamut from big (“I’m going to train for a marathon!”) to small (“I’m staying off social media on weekends!”). Unfortunately, implementing change can often be hard, and it’s estimated that 80% of people fail to keep their New Year’s resolutions. Since getting healthy is one of the most popular resolutions, it’s important to make a plan and set specific goals in order to achieve a healthier you. One aspect of getting healthy that can make everyone smile is better oral health. Regular brushing, flossing, and visits to the dentist will help you maintain a healthier mouth, as well as an overall healthier you.

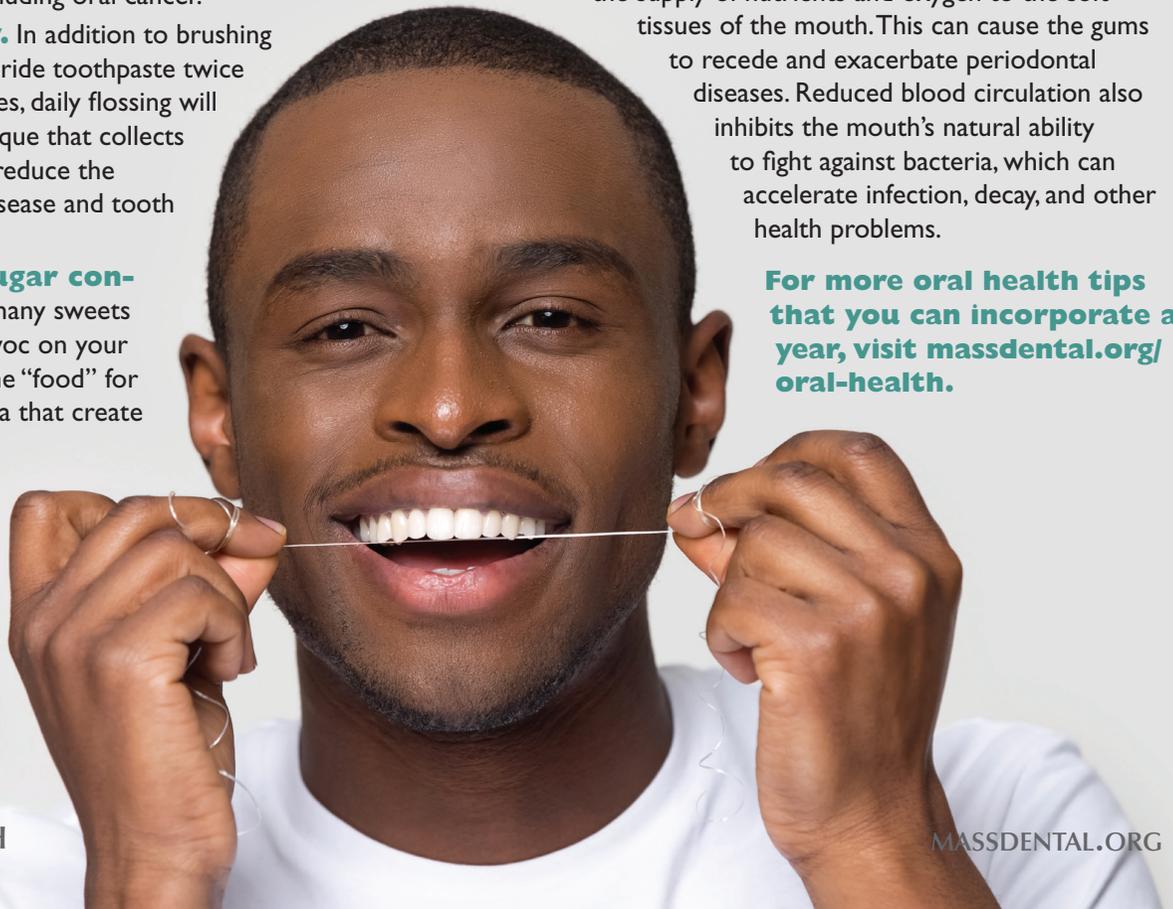
## Here are five oral health practices that will help deliver a healthier smile all year long:

- 1. Visit the dentist regularly.** Your teeth and gums hold important clues to other health issues. So, if you’re interested in maintaining good overall health as well as your smile, visit your dentist for a checkup and cleaning at least twice a year. An exam allows your dentist not only to help you maintain healthy teeth and gums, but also to be on the lookout for developments that may lead to future health problems, including oral cancer.
- 2. Floss every day.** In addition to brushing your teeth with fluoride toothpaste twice a day for two minutes, daily flossing will help remove the plaque that collects between teeth and reduce the likelihood of gum disease and tooth decay.
- 3. Reduce your sugar consumption.** Too many sweets don’t just wreak havoc on your waistline. Sugar is the “food” for harmful oral bacteria that create

acids that destroy tooth enamel and lead to cavities. To limit your sugar intake, avoid soft drinks, go easy on sugary juices, and limit carbs that break down into sugar. Instead, drink fluoridated water—which will help make your teeth more resistant to the acid attacks that can cause cavities—and eat dairy and lean proteins that will help strengthen your teeth. Chewing fruits and vegetables that are high in water and fiber also helps stimulate saliva production and wash away harmful acids and food particles.

- 4. Stop biting your nails, chewing your pen, or chomping on ice.** All of these habits increase the risk of chipping, cracking, or breaking your teeth. Nail biting can even lead to jaw dysfunction, since placing your jaw in a protruding position for long periods of time can place too much pressure on it.
- 5. Stop any smoking or tobacco use.** In addition to heart disease and lung cancer, smoking and tobacco products can cause a slew of oral health problems, including bad breath and stained teeth, dulled sense of taste and smell, gum disease, and oral cancer. E-cigarettes also can have a significant impact on your oral health. The nicotine these products contain reduces blood flow, restricting the supply of nutrients and oxygen to the soft tissues of the mouth. This can cause the gums to recede and exacerbate periodontal diseases. Reduced blood circulation also inhibits the mouth’s natural ability to fight against bacteria, which can accelerate infection, decay, and other health problems.

**For more oral health tips that you can incorporate all year, visit [massdental.org/oral-health](https://massdental.org/oral-health).**



# SMALL BITES

## Kombucha Conundrum

Kombucha, the bubbly fermented tea that you've been seeing more frequently on grocery store shelves and in coffee shop beverage cases, has become a go-to elixir for those seeking to better their health. While kombucha fans rave about its health benefits, which include improved digestion and boosted immunity, among other claims, the trendy beverage may be bad news for your teeth. Although the natural antioxidants and probiotics are the healthy stars of kombucha, the problem lies in the drink's acidity. A 2019 article in *Time* magazine reported that kombucha is potentially problematic for teeth, as it has a pH level not unlike that of soda. Acid can wear away a tooth's enamel, weakening the tooth and paving the way for cavities. Not ready to give up your kombucha? Be sure to drink only kombucha that's low in sugar, sip it with a straw (to keep the acid from making contact with your teeth), and rinse your mouth with some plain old H<sub>2</sub>O when you're done.



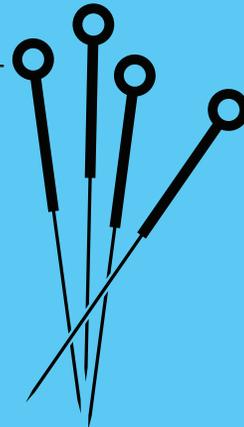
## What Comes First: The Toothbrush or the Floss?

Recently, there's been some debate in the media about whether it's better to brush before you floss or vice versa. Articles in *Men's Health* and *Allure* magazines took deep dives into the "floss first or brush first" debate, speaking to dentists and professors from dental schools such as the University of Pennsylvania School of Dental Medicine and the University of New England College of Dentistry, and the answer is . . . still up for debate. A study published in the *Journal of Periodontology* found that you can reduce more plaque by flossing first and brushing second than by brushing and then flossing, because it's better to remove the plaque that builds up between your teeth (and that can lead to cavities) before you brush. However, Dr. Bryan J. Frantz, president of the American Academy of Periodontology, told *Men's Health* that other studies have indicated otherwise and that the data is inconclusive. So, which is it? According to the American Dental Association (ADA), the most important thing about flossing isn't whether you floss before or after you brush, but just that you be sure to do it every day. As long as you do a thorough job flossing and brushing, it doesn't matter in which order, says the ADA.



## Get to the Point with Acupuncture

Can acupuncture help relieve the discomfort of radiation-induced xerostomia (dry mouth), a serious side effect of radiation therapy, in cancer patients? A new study from researchers at the University of Texas MD Anderson Cancer Center found that patients who had acupuncture during radiation treatment for head-and-neck cancer reported less dry mouth symptoms up to a year after treatment. Xerostomia may sound harmless, but the lack of saliva in the mouth can make people more susceptible to cavities. The clinical trial randomly assigned 339 patients into three groups during their six- to seven-week course of radiation. One group received true acupuncture, another group received sham (fake) acupuncture, and the third group did not receive any acupuncture. None of the participants had prior experience with acupuncture. The results showed that one year after the end of their radiation therapy, only 35% of patients who'd received true acupuncture had dry mouth, compared to 48% of those given sham acupuncture and 55% of those who didn't receive acupuncture. "Dry mouth is a serious concern for head-and-neck cancer patients undergoing radiation therapy," says Dr. Lorenzo Cohen, the study's principal investigator, and can affect up to 80% of patients by the end of radiation treatment. "The symptoms severely impact quality of life and oral health, and current treatments have limited benefits," he adds. If you suffer from dry mouth symptoms but aren't sure you want to try acupuncture, talk to your dentist about other possible remedies.



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**HEALTHY SMILE TIPS**

- Brush your teeth twice a day with a fluoride toothpaste.
- Clean between your teeth daily.
- Eat a healthy diet that limits sugary beverages and snacks.
- See your dentist regularly for prevention and treatment of oral disease.

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