

# Dentalnotes

Your Best Source for Dental Information

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## Alternative Medicine

Aloe vera is good for teeth and gums, too

**T**he aloe vera plant has a long history of healing power. Its ability to heal burns and cuts and soothe pain has been documented as far back as the 10th century. Legend has it that Cleopatra used aloe vera to keep her skin soft. The modern use of aloe vera was first recognized in the 1930s to heal radiation burns. Since then, it has been a common ingredient in ointments that heal sunburn, minor cuts, skin irritation, and many other ailments. Recently, aloe vera has gained some popularity as an active ingredient in tooth gel. Similar to its use on skin, the aloe vera in tooth gels is used to cleanse and soothe teeth and gums, and is as effective as toothpaste to fight cavities, according to the May/June 2009 issue of *General Dentistry*, the Academy of General Dentistry's (AGD) clinical, peer-reviewed journal.

Aloe vera tooth gel is intended to perform the same function as toothpaste, which is to eliminate pathogenic oral microflora—disease-causing bacteria—in the mouth. The ability of aloe vera tooth gel to successfully perform that function has been a point of contention for some dental professionals. However, research presented in *General Dentistry* may alleviate that concern. The study compared the germ-fighting ability of an aloe vera tooth gel to two commercially popular toothpastes and revealed that the aloe vera tooth gel was just as effective, and in some cases more effective, than the commercial brands at



controlling cavity-causing organisms.

Aloe latex contains anthraquinones, which are chemical compounds that are used in healing and arresting pain because they are anti-inflammatory in nature. But, because aloe vera tooth gel tends to be less harsh on teeth, as it does not contain the abrasive elements typically found in commercial toothpaste, it is a great alternative for people with sensitive teeth or gums. But buyers must beware. Not all aloe vera tooth gel contains the proper form of aloe vera. Products must contain the stabilized gel that is located in the center of the aloe vera plant in order to be effective. Products must also adhere to certain manufacturing standards. Dilip George, MDS, co-author of the study, explains that aloe “must not be treated with excessive heat or filtered during the manufacturing

process, as this destroys or reduces the effects of certain essential compounds, such as enzymes and polysaccharides.” Dr. George suggests that consumers consult non-profit associations such as the International Aloe Science Council to see what products have received the organization's seal of quality.

Although there are more than 300 species of the plant, only a few have been used for medicinal purposes. “Thankfully, consumers with sensitive teeth or gums have a number of choices when it comes to their oral health, and aloe vera is one of them,” says AGD spokesperson Eric Shapria, MS, DDS, MAGD, MA. “If they are interested in a more alternative approach to oral hygiene, they should speak with their dentist to ensure that it meets the standards of organized dentistry, too.”

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# Tooth Erosion

## How to manage erosion caused by everyday beverages

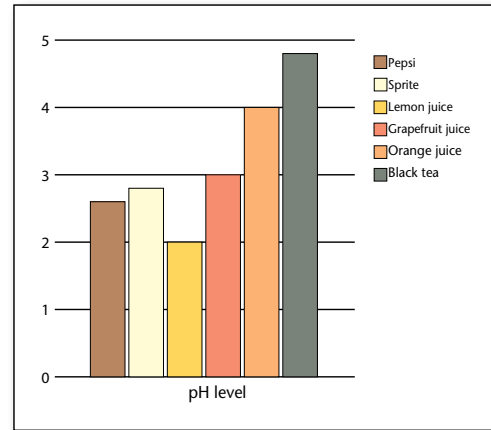
Researchers have warned people to beware of the damage that acidic beverages have on teeth. Yet, for some, the damage and problems associated with drinking sodas, citric juices or certain tea may have already begun to take effect. The question remains: What can be done to restore teeth already affected?

In a recent study that appeared in the May/June 2009 issue of *General Dentistry*, the AGD's clinical, peer-reviewed journal, lead author, Mohamed A. Bassiouny, DMD, MSc., PhD, outlined the acidic content of beverages, such as soda; lemon, grapefruit and orange juice; green and black tea; and revealed three steps to rehabilitate teeth that suffer from dental erosion as a result of the excessive consumption of these products.

Dr. Bassiouny instructs those who are experiencing tooth erosion to first, identify the culprit source of erosion, possibly with the help of a dental professional. Then, the individual should determine and understand how this

source affects the teeth in order to implement measures to control and prevent further damage. Lastly, the person should stop or reduce consumption of the suspected food or beverage to the absolute minimum. He notes that information about the acid content of commonly consumed foods or beverages is usually available online or on the product's label. It is also recommended to seek professional dental advice in order to possibly restore the damaged tissues.

"Dental erosion," according to Dr. Bassiouny, "is a demineralization process that affects hard dental tissues (such as enamel and dentin)." This process causes tooth structure to wear away due to the effects that acid has on teeth, which eventually leads to their breakdown. It can be triggered by consumption of carbonated beverages or citric juices with a low potential of hydrogen (pH), which measures the acidity of a substance. Excessive consumption of



the acidic beverages over a prolonged period of time may pose a risk factor for dental health.

"Some may not even realize a problem exists when their teeth are in the early stages of dental erosion," says Kenton Ross, DDS, FAGD, a spokesperson for the AGD. "Without proper diagnosis by a general dentist, more serious oral health issues could occur."

"Visiting your general dentists twice a year can help maintain healthy teeth as well as uncover and prevent future problems," says Dr. Ross.

# Dental Technology

## Cameras, x-rays and computers, oh my!

Gadgets, gadgets, and doodads. Everybody has them. It's the stuff that the inner child craves when reading the latest issue of *Popular Science* or the *Air Mail* catalogue. These technological devices help make life's tasks faster and easier. The same holds true for dental technologies, which have come a long way. As a result, dentists can serve patients more efficiently, effectively, and more comfortably, according to an article published in the July 2009 issue of *AGD Impact*, the Academy of General Dentistry's (AGD) monthly newsmagazine.

Dentists keep their eye on new technologies when they are introduced in order to ensure that they are safe and beneficial for patient use. As members of the AGD, general dentists read clinical studies to determine the quality of products prior to purchasing new equipment.

"When I began in practice, I made a conscious commitment to offer advanced technology, with the belief that the proper use and application of advanced technology would allow my staff and me to provide consistently high levels of care to our patients in a consistent, comfortable, and cost-effective manner," says

AGD spokesperson Eugene Antenucci, DDS, FAGD.

Some common technologies used in the dental office include the following:

Computer Assisted Design/Computer Assisted Machining (CAD/CAM) technology: this helps fabricate precise shapes and sizes for dental restorations, including inlays, onlays, crowns, and bridges.

Soft tissue lasers are used for surgery, tissue contouring, and periodontal therapy and hard tissue lasers for cavity and tooth preparation. Lasers can be a good alternative to the traditional drill, as anesthesia is not needed as often. Lasers are more precise and can reduce symptoms and healing times associated with traditional therapies.

Intraoral cameras are used to project a magnified picture of a patient's mouth onto a screen. The image allows both the dentist and patient to see fractured teeth, receding gums, and broken restorations, such as fillings. After these pictures are taken, dentists are better able to diagnose and recommend treatment for their patients. The pictures also can provide



documentation for insurance companies.

Digital X-rays and cone beam 3-D digital imaging for detecting decay, bone loss, and it provides help with root canals. To take a digital X-ray, dentists will place a sensor on the tooth that looks like a piece of film. Once the picture is taken, dentists can adjust the contrast and brightness to optimize diagnosis and find even the smallest areas of decay.

Dental management software is used for electronic practice management, image management, patient education, record keeping, data storage.

Dental technology is not only revolutionizing the way dentists practice, it's also changing the future of dentistry. During the next appointment, look around at all the gadgets, gadgets, and doodads. Although no one can predict the future, it is certain that dental technology will continue to change the face, and smile, of 21st century dentistry.

# Cavities and Tooth Decay

## White wine also a culprit in staining teeth

Smile wide, and if the pearly whites in the mirror do not look so bright lately, it would be smart to take inventory of what has been consumed. Stains on teeth are often due to the effect of common foods, beverages, medications or tobacco products. Even red wine has been known to temporarily leave teeth looking less than luminous. What might be surprising to the wine drinkers of the world, who may think they are making a smart decision by drinking white, is that it also makes teeth more susceptible to tooth staining, according to researchers at New York University College of Dentistry and an article published in the June 2009 issue of *AGD Impact*, the Academy of General Dentistry's (AGD) monthly newsmagazine.

Researchers at the New York University College of Dentistry found that, like its scarlet counterpart, white wine also can cause tooth staining and discoloration. The reason is that both types of wine, whether red or white, contain acid, which roughens enamel and makes teeth susceptible to staining.

Researchers soaked a set of six cows' teeth placed in white wine over a one-hour period and then steeped the teeth in black tea. Then, they performed a similar process using red wine and water in the initial one-hour soak. "Soaking the teeth simulates the effect of sipping wine with dinner," according to Dr. Mark Wolff, DDS, PhD, Professor and Chairman of the Department of Cariology & Comprehensive Care at New York

University College of Dentistry, who oversaw the study.

After using a spectrophotometer, a device used to measure color intensities, they were able to determine that, as imagined, red wine left the deepest, darkest stains on teeth. What researchers did not expect was that the teeth soaked in white wine also showed signs of increased staining beyond tea exposure alone.

"Regardless of the color, the acid present in both types of wine create rough spots and grooves in teeth that allow chemicals to penetrate deeper in the tooth," says Dr. Wolff.

Thankfully, the phrase "everything in moderation" presents some good news for wine lovers.

"Like any other stain-causing food or beverage, as long as it is consumed occasionally and a proper oral health regime is followed, wine is still allowed!" says Raymond Martin, DDS, MAGD, spokesperson for the AGD. "Wine drinkers should limit their consumption, of course, but they should also avoid brushing teeth right after finishing a glass. The acid in the wine softens tooth enamel, and brushing will increase the likelihood of tooth erosion." Dr. Martin tells his patients to follow wine with a glass of water, which will leave their mouths refreshed and healthy - a perfect pairing.



# Men's Oral Health

## Economy and pumping iron lead to cracked teeth

Many men's mouths fall silent when questioned about frequency of regular dental visits.

Just being male puts one at risk for infrequent dental checkups and poor oral health, which can decrease a man's longevity, according to a recent article in *AGD Impact*, the monthly newsmagazine of the Academy of General Dentistry (AGD).

Higher incidences of diabetes and heart disease decrease how long a man may live, according to the American Diabetes Association and the American Heart Association. Researchers find that men with periodontal disease may be placed more at risk for complications related to diabetes and heart disease. "Men need to know that a healthy mouth leads to a healthy body," says Scott Cayouette, DMD, FAGD and AGD spokesperson.

Periodontal disease can be prevented; yet, the average man only brushes his teeth 1.9 times a day and will lose 5.4 teeth by age 72. If he smokes, he can plan on losing 12 teeth by age 72. Men also are more likely than women to develop oral

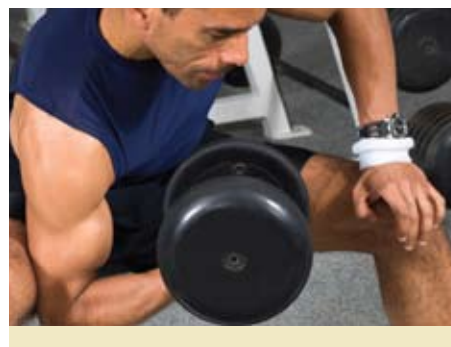
and throat cancer and periodontal (gum) disease.

"Men may neglect their oral health for years, visiting a dentist only after a problem arises," says Dr. Cayouette. He may see some of his male patients only after a dental emergency. "I also treat more men for stress-induced tooth fractures caused by worrying about the economy."

Dr. Cayouette explains that when stressed, men will clench or grind their teeth so hard that stress fractures occur, treatment which may require a dental visit, examination, crown and in extreme cases, extraction. Also, he treats men with tooth fractures that resulted from lifting heavy weights.

Each June, which is National Men's Health Month, the AGD encourages men to find a dentist, schedule an appointment and follow these easy (and inexpensive) tips to improve oral health:

- See a general dentist twice a year and get regular cleanings
- Stash "floss and toss" tools in cars, office drawers and backpacks.



- Can't brush? Swish with water or chew sugar free gum with xylitol to stimulate saliva flow
- Floss daily
- Brush teeth with fluoridated toothpaste
- Play sports? Lift heavy weights? Get a custom athletic mouthguard made by your dentist to protect teeth from trauma.
- Problems with fracturing teeth related to stress? Talk to your dentist about a custom occlusal biteguard to prevent further damage to your teeth.
- Use [KnowYourTeeth.com](http://KnowYourTeeth.com) to post a dental question and receive free advice from a dentist
- Use the same site to find a dentist in your neighborhood

# AGD's [www.KnowYourTeeth.com](http://www.KnowYourTeeth.com)

The AGD's web portal, [www.KnowYourTeeth.com](http://www.KnowYourTeeth.com) is now "the Internet's go-to resource and authority for all things dental," says AGD Past-President Paula Jones, DDS, FAGD. The AGD launched the new Web portal to meet a growing need for accurate, accessible information in user-friendly formats.

One of the most exciting, sophisticated offerings on [www.KnowYourTeeth.com](http://www.KnowYourTeeth.com) is a personalized "Dental Diary." The only one of its kind among dental association Web sites, the Dental Diary can be uploaded onto desktops or personal Web pages of portal visitors, and it can be used as a personalized interface to [www.KnowYourTeeth.com](http://www.KnowYourTeeth.com). The Dental Diary provides up-to-date information and options designed to help users



- maintain optimal oral health, including:
- Reminders for each member of the family to replace toothbrushes every six months;
  - Reminders to schedule dental visits

(such as cleanings) for family members; The portal's wealth of content makes it easy for consumers to browse important dental topics and find answers to their questions.

## Q&A

### Why is Brushing With Toothpaste Important?

Brushing with toothpaste is important for several reasons. First and foremost, a toothpaste and a correct brushing action work to remove plaque, a sticky, harmful film of bacteria that grows on your teeth that causes cavities, gum disease and eventual tooth loss if not controlled. Second, toothpaste contains fluoride, which makes the entire tooth structure more resistant to decay and promotes remineralization, which aids in repairing early decay before the damage can even be seen. Third, special ingredients in toothpaste help to clean and polish the teeth and remove stains over time. Fourth, toothpastes help freshen breath and leave your mouth with a clean feeling.

### How much should I use?

Contrary to what toothpaste commercials show, the amount of paste or gel needed on your brush for effective cleaning does not have to be a heaping amount. Simply squeeze a pea-sized dab of paste on the top half of your brush. If you brush correctly, holding the toothbrush at a 45-degree angle and brush inside, outside and between your teeth, the paste should foam enough to cover all of your teeth. Children under age 6, however, should be given a very small, baby pea-sized dab of toothpaste on their brush.

### Is brushing with toothpaste enough to fight cavities and gum disease?

No. Although brushing thoroughly after each meal helps, flossing your teeth every day to remove plaque and food particles between teeth and at the gumline is just as important. Studies show that plaque will regrow on teeth that are completely clean within three to four hours of brushing.

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*Dentalnotes* is a quarterly newsletter published by the Academy of General Dentistry (AGD) to help the media and general dentists effectively address current science-based dental health issues to raise public awareness of dentistry.

Looking for a spokesperson in your area? Contact us. AGD spokespersons are a reliable team of individuals who are knowledgeable on specific dental health issues, available for interviews and are located in a variety of media markets.

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The core purpose of the Academy of General Dentistry is to advance the value and excellence of general dentistry.

### Have a dental question?

Visit the AGD's Dental Advisor, [www.knowyourteeth.com](http://www.knowyourteeth.com). Post a question and a dentist will post an answer within 24 hours.

### Looking for a dentist?

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