

WORD of MOUTH

A Semiannual Publication of the Massachusetts Dental Society

Summer - Fall 2012

“Baby” Those Teeth

See Pages 4-5





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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 timely news regarding oral health, visit the "For the Public" section of the MDS website at www.massdental.org.

Your comments and suggestions regarding **WORD OF MOUTH** are always welcome. All correspondence and requests for additional copies may be forwarded to Melissa Carman, Managing Editor, Massachusetts Dental Society, Two Willow Street, Suite 200, Southborough, MA 01745-1027, or email mcarman@massdental.org.

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DENTAL X-RAYS:

This past April, you may have read about a study linking dental X-rays to an increased risk of developing a nonmalignant form of brain tumor. The study, published in *Cancer*, the scientific journal of the American Cancer Society, associates yearly or more frequent dental X-rays (also called dental radiographs) with an increased risk of developing meningioma, the most commonly diagnosed brain tumor. The Massachusetts Dental Society (MDS) supports the American Dental Association (ADA) position that this study is valuable and that more research needs to be conducted on the subject, but that patients should not disregard this important dental diagnostic tool. And even the study's lead researcher, a neurological surgeon at Brigham and Women's Hospital in Boston, agrees that the results don't mean people should stop seeking dental care and went on the record with MSNBC as saying, "Our take-home message is don't panic. Don't stop going to the dentist."

According to the National Brain Tumor Society, most meningiomas, which account for more than 34 percent of all primary brain tumors, are considered nonmalignant or low-grade tumors. This type of tumor is most commonly diagnosed in people in their 40s to 50s, but is twice as prevalent in women as in men. It is believed that meningiomas may arise after previous treatment from ionizing radiation or excessive X-ray exposure.

In a statement issued on April 10, the ADA said that it had reviewed the study and noted that the results rely on the study participants' memories of how often they had dental X-rays taken years earlier. However, studies of this nature can be unreliable because they are affected by something scientists term "recall bias." Additionally, the ADA went on to say that the study itself acknowledges that some of the subjects received dental X-rays decades ago, when radiation exposure was greater because of the use of old X-ray technology and slower-speed film, which could result in higher radiation rates. In the interest of patient safety, the ADA encouraged further research.

Safe and Sound

When used appropriately, dental X-rays are an important method for diagnosis of dental disease. Many oral diseases cannot be detected on the basis of a visual or physical examination alone. That's where dental X-rays come in. They are valuable in detecting problems in a patient's oral health not visible to the eye, including: caries (tooth decay) that develops between the teeth and gums or under fillings; periodontal (gum) disease; diseases in the bone or jaw; infections that develop under the gums; and some types of tumors. Dental radiographs can also alert the dentist to changes in the patient's soft and hard tissues.

Patient safety, however, is the highest priority. Therefore, how often should dental X-rays be taken? According to the ADA, that depends on the patient's oral health condition, age, risk for disease, and any signs and symptoms of oral disease that he or she might be experiencing. The ADA has a long-standing position that dentists should order dental X-rays for diagnosis and treatment for patients only when necessary, and since 1989, it has provided recommendations to help dentists ensure that radiation exposure is as low as reasonably achievable.

Furthermore, the ADA recommends that dentists use E- or F-speed film—the two fastest film speeds available—or digital X-rays to minimize radiation exposure. The ADA also encourages dentists to use abdominal shielding (e.g., protective aprons) and thyroid collars on all patients.

Patients may also want to keep in mind that the amount of radiation used to obtain dental radiographs is very small. For example, patients who have bitewing X-rays (two to



four images of the back teeth) taken are exposed to about 0.005 millisieverts (mSv) of radiation. (The millisievert is a measure of the absorption of radiation by the human body.) According to the American Nuclear Society, the average person receives roughly 3.2 mSv of radiation exposure each year naturally from the environment.

The ADA and the MDS encourage patients to be proactive about their oral care, and this includes their concerns about the benefits and safety of dental X-rays. When seeing a new dentist for the first time, it's recommended that patients bring copies of previous radiographs, as this may help avoid unnecessary duplication of X-rays and limit exposure to radiation. However, if the patient reports symptoms that appeared after the previous X-rays were taken, the dentist may need to take new radiographs to determine the cause of the symptoms and to advise on the course of treatment.

As always, the MDS recommends that you speak with your dentist regarding any concerns you have about your oral health, including diagnostic and treatment procedures. You should never be afraid to speak up. Your dentist is working on your behalf to make sure you have optimum oral health, but, at the end of the day, you are your own best advocate.

“Baby” Those Teeth

*The Importance of
Age-1
Dental Visits*



A baby's first year is marked with many milestones: that first smile, word, step, and tooth. Parents wait anxiously for all of these first-time events—and then boast about them to family and friends on Facebook. But there's one other important “first” in a baby's life that parents need to anticipate: the first dental visit. The Massachusetts Dental Society (MDS), the American Academy of Pediatric Dentistry (AAPD), the American Dental Association (ADA), and the Massachusetts Academy of Pediatric Dentistry (MAPD) all recommend scheduling a baby's first visit to the dentist within six months of the eruption of the first tooth, and no later than your child's first birthday.

A baby's first teeth usually begin to come in between the ages of six months and one year. This first set of teeth, called “primary” or “baby” teeth, are important and should be cared for properly. Not only do primary teeth help young children to speak and chew, but they also act as space holders in the jaw for the permanent teeth that are developing below the gums and that start to come in when the child is 6 or 7 years old.

Parents may wonder why they need to schedule early dental visits for their children. What sort of dental problems could a baby have? An “age-one visit” to the dentist is analogous to a “well-baby visit” to the pediatrician. These early dental visits allow the dentist to check for tooth decay and other things that may adversely affect the teeth and gums, including habits like thumb sucking, which can cause the teeth to misalign.

And, yes, babies can develop tooth decay. Over-exposure to sweetened liquids, through a baby bottle, is a risk factor for early childhood caries, known commonly as “baby bottle tooth decay.” This condition develops when sugary liquids are given and are left clinging to an infant's teeth for long periods. Many beverages commonly given to babies—including baby formula, milk, and fruit juice—contain sugar. Bacteria in the mouth feed off of this sugar and produce acids that attack the teeth, leading to decay. According to the U.S. Centers for Disease Control and Prevention, early childhood caries is the single most common chronic childhood disease. Nationally, 51 million school hours are lost by children

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to the pediatrician.*

each year due to dental-related problems. Therefore, having ongoing dental care is extremely important for young mouths. Visiting the dentist early enables the implementation of positive oral health practices that reduce a child's risk of preventable dental disease, such as tooth decay.

What to Expect

During the appointment, the dentist will examine the baby's mouth, teeth, and gums. He or she will evaluate any habits—such as thumb sucking or drinking sugary liquids at bedtime—that could adversely affect the infant's dental health and tooth development, and recommend a future schedule of dental visits for the child.

At this time, the dentist will also show parents how to properly clean the baby's teeth and gums. According to the AAPD, parents should clean the baby's gums with water and a soft infant toothbrush or cloth as early as the first few weeks the baby is home. As soon as the baby teeth begin to come in, parents should start brushing twice daily with a soft toothbrush and a small "smear" of fluoridated toothpaste. These dental visits are also an ideal time to educate parents about positive oral health habits and establish a "dental home" for the child. (A "dental home" is a term used to refer to comprehensive, continuous oral care that is delivered in a setting by a licensed dentist to infants, children, young adults, and those with special needs.)

Parents can establish a positive relationship between their child and his or her dentist by starting dental visits early—and continuing checkups and cleanings every six months. Having a dental home helps establish a positive relationship and trust among the child, the parents, and the dental team. By providing children with a dental home, parents can help them grow into a lifetime of good oral health.

Baby teeth may be tiny, but their need for oral care is not.

Big Tips for Caring for Little Mouths

- Clean the baby's gums with water and a soft infant toothbrush or cloth
- Brush erupted teeth twice a day using a soft toothbrush and a small "smear" of fluoridated toothpaste
- Limit the amount of sugary liquids, such as juice, in the baby bottle
- Schedule the baby's first dental appointment when the first tooth erupts or by age one, whichever comes first
- Follow up with twice-a-year dental visits as your child grows





Diabetes *Super Team*

Helping Patients Avoid Serious
Complications from Diabetes

DENTISTS • PODIATRISTS • OPTOMETRISTS • PHARMACISTS

Anyone who has diabetes can tell you that there's nothing sweet about this disease, which is characterized by high blood glucose levels resulting from defects in the body's ability to produce and/or use insulin. It's estimated that 25.8 million Americans have diabetes, and of that number, 7 million do not even know they have it, according to the National Institutes of Health. Diabetes is a metabolic disease with far-reaching health implications that can lead to heart disease, stroke, blindness, kidney failure, lower-extremity amputations, and periodontal disease. It is also the seventh leading cause of death in the United States. In light of these startling statistics, dentists, podiatrists, optometrists, and pharmacists in Massachusetts have formed a coalition to educate patients on the importance of working with their entire medical team to better manage their diabetes, avoid serious complications, and live healthier lives.

The Massachusetts Diabetes Education Program (MDEP) Coalition is a statewide group formed by the Massachusetts Dental Society (MDS), Massachusetts Podiatric Medical Society, Massachusetts Society of Optometrists, and Massachusetts Pharmacy Association. The health complications of diabetes are expansive and can affect multiple aspects of a patient's health. Serious complications from diabetes include blindness, lower-extremity ulcers and amputations, periodontal disease, tooth loss, heart disease, and adverse reactions from drug interactions or poor drug therapy management.

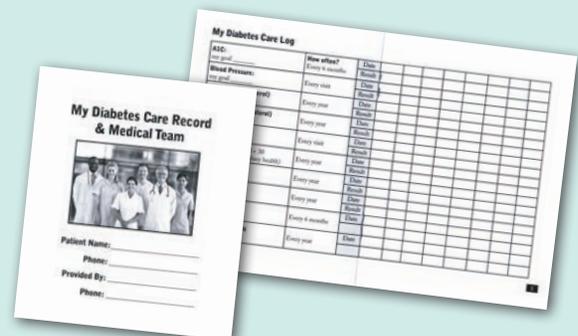
By working with a patient's primary care physician, MDEP health professionals play an important role in ensuring that diabetes care is continuous and patient-centered. They educate people with diabetes about the disease, encourage them to practice self-management, provide appropriate treatment, and refer those who require the care of other health professionals.

MDEP has developed tools to help patients with diabetes. In addition to a website, www.mdepcoalition.org, the

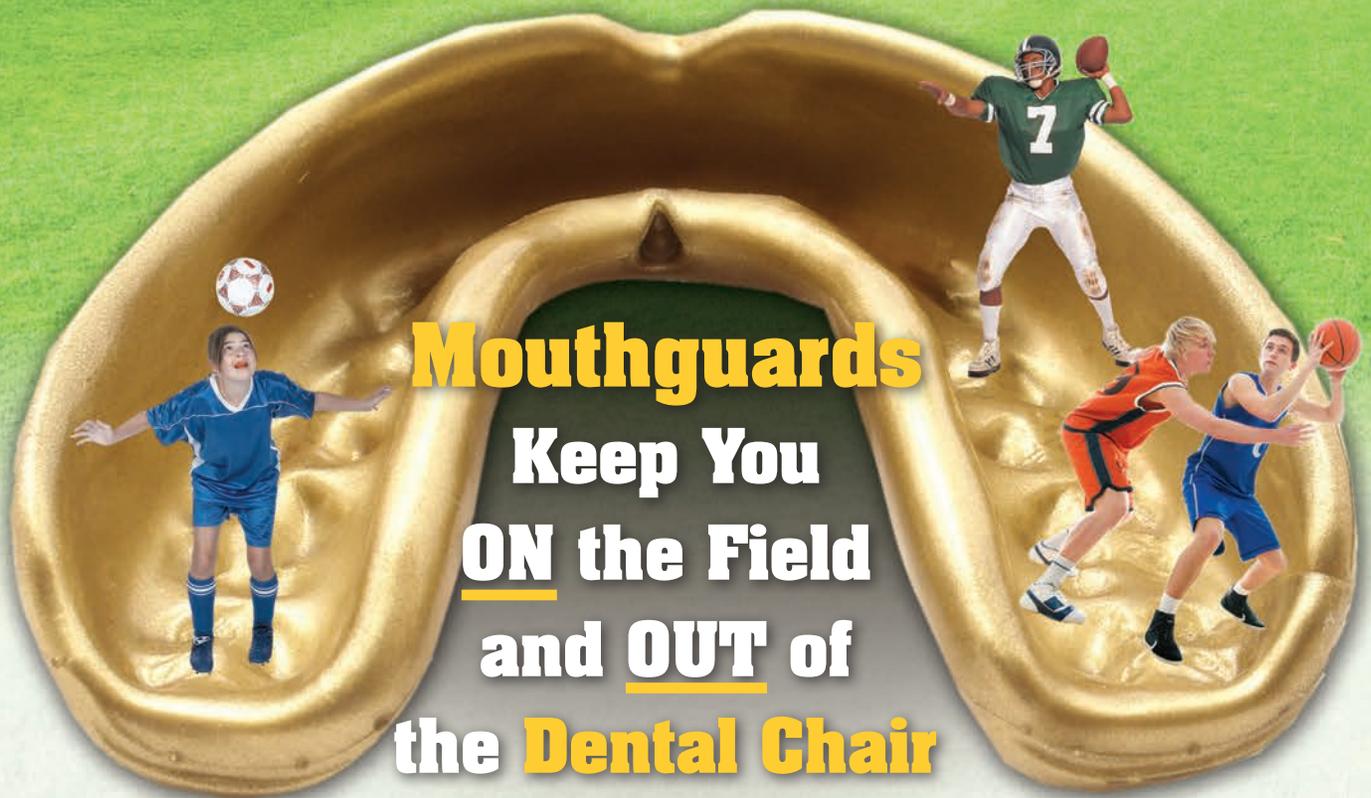
coalition has produced a brochure that offers tips on managing diabetes and explains the importance of involving the entire medical team in diabetes care, as well as a portable diabetes care record. This handy 8-page record helps patients keep track of their diabetes team providers, appointment schedules and results, and list of medications, as well as health and lifestyle goals for better managing their diabetes.

Diabetes is a chronic disease for which there is no cure. But those patients who properly manage their diabetes and avoid complications from the disease can live healthier lives. According to the MDEP Coalition, studies have shown that patients with diabetes can dramatically reduce their risk of serious, diabetes-related health problems by following these recommendations: monitor their blood sugar levels; eat a healthy diet; quit smoking; exercise regularly; visit their optometrist and podiatrist at least once a year and their dentist twice a year to find and treat any problems early; and review their medications with a pharmacist annually.

If you have diabetes, be sure to let all of your health care providers—including dentists—know, and visit the MDEP website, www.mdepcoalition.org, for more information. Once you get your diabetes and its symptoms under control, you can get on to the real sweet stuff: living your life.



The Diabetes Care Record developed by the MDEP Coalition helps patients better manage their diabetes.



Mouthguards Keep You ON the Field and OUT of the Dental Chair

No one can argue that safety is a critical factor when a child participates in a contact sport. Student athletes wear helmets to protect against concussions, and pads on their shoulders, knees, and elbows to safeguard against breaks and bruises. The Massachusetts Dental Society (MDS) wants to alert parents to the necessity of also protecting your child's mouth and teeth with one other simple piece of equipment—a mouthguard.

Mouthguards help prevent injury to the mouth area, especially to the teeth, lips, cheeks, and tongue. Even athletes who wear helmets or face shields should wear mouthguards, since they also protect against head-and-neck injuries by helping to cushion blows.

Sports injuries involving the mouth can have far-reaching consequences. In addition to the pain and expense in the immediate treatment of the injury, parents can encounter significant expense with follow-up care. This care will carry on into the injured child's adult life. So the wisdom of wearing a mouthguard for athletic activities is apparent for both safety and economic reasons.

In the court of public opinion, some have argued that mouthguards are not necessary in some sports, such as soccer and basketball, since they are not technically contact sports. However, players can easily receive blows to the face from an elbow, soccer ball, or basketball. They can also fall face first onto the field or a hard gymnasium floor.

When it comes to choosing a mouthguard, there are three types widely available: custom-made mouthguards, boil-and-bite mouthguards, and stock mouthguards that are sold in sporting goods stores. Dentists recommend that athletes wear custom-made mouthguards, because in terms of fit, comfort, and protection, a custom-made mouthguard is superior since it is made from an impression of the child's teeth. As a result, the athlete breathes better, speaks more clearly, and, most importantly, receives the best protection from an orofacial injury.

Parents, coaches, and athletic directors can help prevent avoidable injuries to students by strongly encouraging their student athletes who participate in any sport where they could sustain an injury to the head-and-neck region to wear mouthguards during games and practices.

This way, if players do have to lose, it won't be more than the game.

Oral Care



People undergoing treatment for cancer can be subject to many side effects. Radiation and chemotherapy, the two main treatments for most forms of cancer, can cause hair loss, anemia, nausea, appetite changes, and weight loss. But patients might not be aware that these cancer treatments can also affect the teeth, gums, salivary glands, and other oral tissues. That is why it is important for patients to maintain good oral health before, during, and after cancer treatment in order to prevent or lessen the impact of chemotherapy and radiation side effects.

According to the National Cancer Institute (NCI), the oral cavity is a region at high risk





FOR CANCER PATIENTS

for side effects from chemotherapy and radiation therapy for a number of reasons. Chemotherapy and radiation stop the growth of rapidly dividing cells—such as cancer cells—but can also prevent healthy rapidly dividing cells in the mouth from reproducing, making it difficult for oral tissue to repair itself. Also, cancer treatment can cause changes in the lining of the mouth and saliva production, and upset the healthy balance of bacteria naturally present in the mouth. These changes could lead to mouth sores, infections, and tooth decay.

The NCI recommends that cancer patients have a complete oral health exam by a dentist familiar with the oral side effects of cancer treatments before undergoing chemotherapy or radiation. Patients with existing oral health problems are at risk for having more frequent and severe oral complications after treatment commences, so they are advised to seek preventive treatment before beginning cancer therapy.

Preventing and treating the oral side effects of cancer therapy involve identifying any issues (e.g., infection or decay), taking preventive measures before cancer therapy begins, and treating any complications as soon as they appear. A dentist performing a preventive oral health exam will check for mouth sores or infections, gum disease, tooth decay, ill-fitting dentures, jaw problems, and issues with the salivary glands.

According to the NCI, the most common side effect of chemotherapy and radiation treatments is mucositis, which is inflammation of the mucous membranes in the mouth. The risk of developing mucositis, which appears as red burn-like or ulcer-like sores in the mouth, is increased when the patient receives both chemotherapy and radiation at the same time.

Another common side effect is dry mouth, also known as xerostomia, which occurs when the salivary glands don't produce enough saliva. In addition to causing the patient to experience discomfort, dry mouth can increase the risk of developing tooth decay and gum disease, according to the American Dental Association (ADA). Adequate saliva levels in the mouth are critical to good oral health because saliva helps wash away food particles that stick to teeth and gums and that can lead to tooth decay.

Cancer patients suffering from both mucositis and dry mouth are advised to ramp up their oral hygiene routine. This means thoroughly cleaning the teeth and mouth with a soft-bristled toothbrush and rinsing the

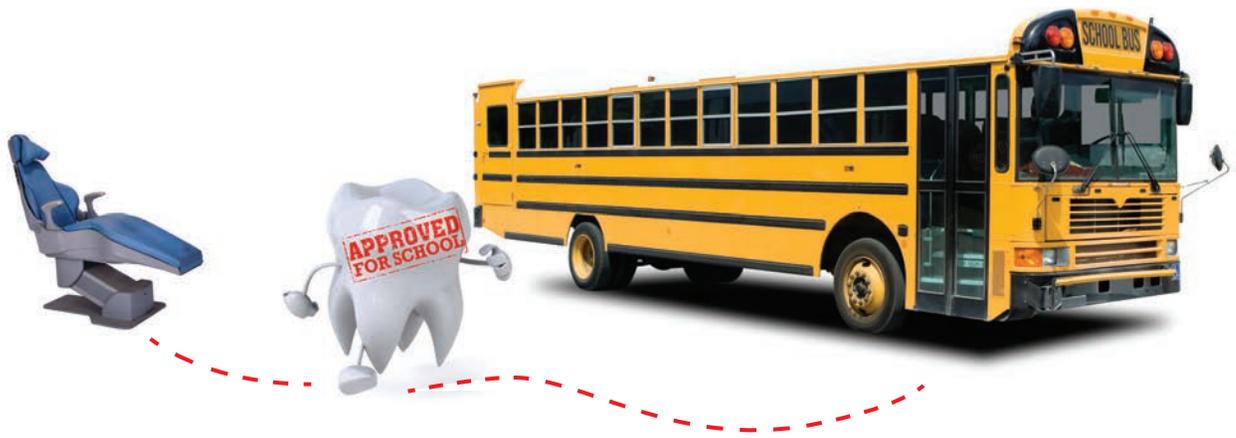
mouth with plain sterile water (or a special mouth rinse, if prescribed by your dentist) every four hours and before bedtime. In addition to removing food particles and bacteria from the mouth, rinsing helps prevent sores from crusting and keeps the gums and tissues moistened, alleviating discomfort. Any patients experiencing acute pain from mucositis should contact their dentist or oncologist, who may prescribe a topical medication to provide relief.

In addition to being side effects themselves, mucositis and dry mouth can cause another potentially more serious problem. Cancer treatments can weaken a person's entire immune system, and when this happens, bacteria in the mouth and disease-causing organisms picked up from the hospital, doctor's office, or other sources can enter the bloodstream and cause bacterial, fungal, or viral infections. Patients with mucositis or dry mouth are at risk because both conditions compromise the oral cavity, creating an environment where infection can develop and germs and viruses can get into the bloodstream. Additionally, the low white blood cell counts that can occur during cancer treatment may lead to an increased chance for infections. Patients who have low white blood cell counts for an extended period of time are susceptible to developing serious infections.

Treatment of infections varies, based on the type. Bacterial infections may be treated with medicated mouthrinses. Fungal infections may be treated with antifungal medication, such as mouthrinses or lozenges. Viral infections may be treated with prescribed antiviral medications. Patients should consult with their oncologist or dentist to see which avenue of treatment to pursue.

In addition to having a thorough dental exam before treatment starts, patients should be sure to maintain proper oral hygiene before, during, and after cancer therapy, says the ADA. They should brush their teeth and gums at least twice a day using a fluoridated toothpaste (a soft-bristled brush is gentler on sensitive gums); floss daily; stop using tobacco products; and use mouthrinses to keep the mouth moist (but avoid rinses containing alcohol, which can dry the tissues).

Patients undergoing treatment for cancer have enough to worry about; they don't need to add oral health complications. That's why it's recommended that they include their dentist on their treatment team and stay on top of their oral health to minimize the oral effects of cancer therapy.



Back-to-School Oral Exam

Before You Get Back on the Bus—See Your Dentist

For hundreds of thousands of children across Massachusetts, the end of summer marks the beginning of another school year. This often means a trip to the pediatrician or family doctor for a physical exam. Sadly, however, one part of the body that is still being overlooked is right under our noses—the mouth, which, upon closer examination, reveals that the state of oral health among thousands of Massachusetts children is not making the grade.

According to the Massachusetts Dental Society (MDS), dental decay is the single most prevalent childhood disease. Approximately 51 million school hours are lost each year due to dental-related problems. Just like that physical exam before school starts, taking the preventive measure of a dental exam may help prevent your child from missing valuable school days later in the year. A dentist will be able to examine your child's teeth and mouth for signs of decay or other issues and make sure everything in the mouth is developing properly.

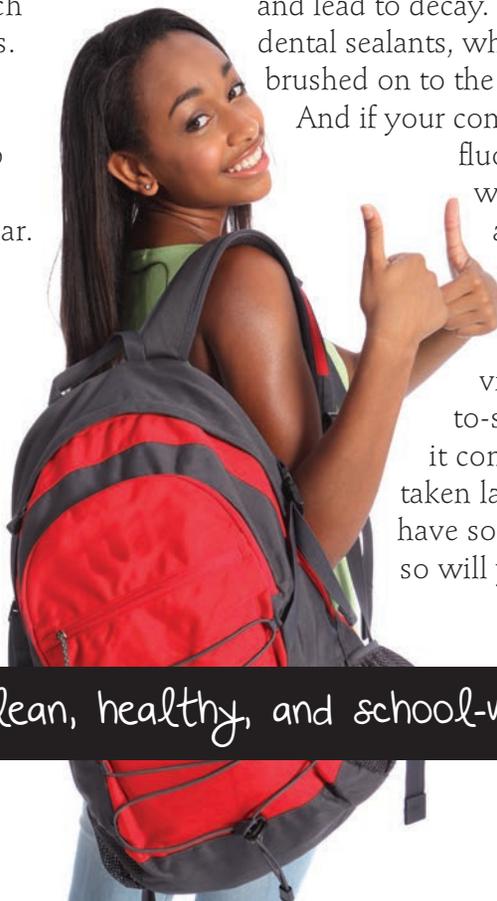
You also want to ensure your child's teeth are healthy and cavity-free because, in addition to the oral health implications, children can't

concentrate and learn in school when they have a toothache.

Preventing dental disease in children also involves adopting good oral hygiene habits, limiting their intake of sugary drinks and snacks, and having dental sealants applied when appropriate. Parents can help children maintain a healthy smile all year long by making sure they floss their teeth and brush well at least twice a day with fluoridated toothpaste. Avoid packing their school lunch bags with snack items such as candy, sugared gum, sticky granola bars, and even raisins, which can cling to the teeth and lead to decay. You may also want to consider dental sealants, which are thin plastic coatings brushed on to the tooth surfaces to prevent cavities.

And if your community's water supply is not fluoridated or if you have private well water, check with your dentist about the possibility of fluoride supplements for your child.

The MDS encourages parents to include dental office visits as part of their child's back-to-school routine. That way, when it comes time for the class photo to be taken later this fall, your child will really have something to smile about . . . and so will you.



Get an A+ for clean, healthy, and school-worthy teeth

TOOTH “PICKS”

Cuckoo for Cocoa Toothpaste



This is the news that children everywhere (and, let’s face it, a good number of adults) have been waiting for: chocolate toothpaste. Okay, so it tastes more like the traditional mint than chocolate, but Theodent Classic, a toothpaste introduced for sale earlier this year at Whole Foods Markets, contains Rennou, a blend of cocoa extract and minerals, instead of fluoride to help strengthen tooth enamel. The toothpaste, which is not yet available for purchase in Massachusetts, is being offered as a choice for those consumers seeking an alternative to fluoride toothpastes. And for those chocolate-loving kids (and adults), you may not need to hold your breath for too long. The manufacturers behind Theodent hope to expand the product line to include a chocolate-flavored, sugar-free toothpaste for children, as well as dental floss and mouthwash.

NOTE: Fluoride toothpastes are the *only* toothpaste that the American Dental Association recommends people brush their teeth with, since fluoride has been proven to be safe and effective in preventing tooth decay for both children and adults.

Is This Cavity-Fighting Mouthwash “da Bomb”?



Researchers from the University of California Los Angeles (UCLA) have developed a new mouthwash that they are calling a “smart bomb” because it has the potential to wipe out tooth decay. In a study published in *Caries Research*, the researchers claim that just one rinse with this new mouthwash eliminated the *S. mutans* bacteria, a bacteria that naturally occurs in the mouth and that causes cavities. What’s more, the 12 test subjects who took part in the study remained *S. mutans*-free for the entire four-day duration of the study.

According to the researchers, this mouthwash differs from other antiseptic mouthwashes in that it uses a new antimicrobial technology—specifically targeted anti-microbial peptides—that targets and kills *S. mutans*, while leaving the other “good” bacteria present in the mouth to help protect the teeth. But don’t expect to find this mouthwash on your drugstore shelves just yet; more research needs to be done to determine how long the mouthwash’s cavity-fighting effects will last, and then the product still needs to undergo testing by the U.S. Food and Drug Administration.

Economy Impacts the Tooth Fairy, Too

It seems that no one is safe from the fallout of the poor economy of the last few years—not even the Tooth Fairy. According to the Original Tooth Fairy Poll® conducted by Delta Dental, the average amount the Tooth Fairy left for a tooth in 2011 was \$2.10, a drop of 17 percent compared to the average amount left in 2010. “Like many Americans, the Tooth Fairy needed to tighten her belt in 2011, but she’s hopeful for a recovery this year,” says Chris Pyle, spokesperson for Delta Dental. How much did the Tooth Fairy leave under your pillow this year? Take the poll at www.theoriginaltoothfairy.com.



The Princess Dental Diaries

Last year’s storybook wedding of Britain’s Prince William and Kate Middleton was an event that captured the attention of many across the globe. Everyone talked about how everything was perfect, from the bride’s stunning dress to the couple’s double kiss after they were pronounced man and wife. But one thing that day may have been imperfect by design—the bride’s smile. According to an article in the UK’s *Times Magazine*, the Duchess of Cambridge’s much-talked-about beaming natural smile isn’t natural at all; it’s the work of French dentist Didier Fillion, who used a technique called micro-rotations to design a smile of “harmonious asymmetry.” In the article, a colleague of Dr. Fillion’s said the French dentist helped Kate Middleton achieve an improved but still natural-looking smile. “They aren’t absolutely aligned,” he said. “In the United States, they want teeth that are symmetrical, monochromatic, [and] artificial. He did some little micro-rotations on Kate Middleton, so that it looks like a natural, healthy smile, but not artificial.”





Sticks and Stones
(and other unknowns)
may break my
bones...

and my
teeth.



That's why
I always wear
a mouthguard.

So **games**
will never
hurt me.



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