Taking a Closer Look at

Oral Cancer
It’s a frightening statistic: The American Cancer Society estimates that 30,990 new cases of oral cancer will be diagnosed in the United States in 2006. Even more alarming? An estimated 7,430 people will die of these cancers this year. That’s roughly one fatality every hour, according to the Oral Cancer Foundation. Since we’re talking numbers, oral cancer is the sixth most common cancer in men and 14th most common cancer in women, according to the National Institute of Dental and Craniofacial Research.

While oral cancer may not have as high a public profile as other cancers, the fatality rate for oral cancer is higher than that for cervical cancer, Hodgkin’s disease, skin cancer, and cancer of the brain, liver, testes, or kidney. Being aware of the symptoms of oral cancer, which means performing regular self-examinations and having your dentist perform a professional oral cancer screening as part of your routine checkup, can be a tremendous aid in recognizing and detecting oral cancer and possibly increasing the chance for recovery. In the face of such scary statistics, it comes down to this: You are the most important factor in the early diagnosis of oral cancer.

A LITTLE BACKGROUND

The term “oral cancer” encompasses cancers of the mouth, including the lips, cheeks, tissue, gums, and tongue, as well as the pharynx, which is part of the throat. There are several types of oral cancer, but approximately 90 percent are what is known as squamous cell carcinomas. Squamous cell carcinomas usually appear as crusted or scaly patches on the skin with a red, inflamed base, a growing tumor, or a nonhealing ulcer. They are generally found in sun-exposed areas like the face, neck, arms, scalp, backs of the hands, and ears, but can also occur on the lips, inside the mouth, or anywhere else on the body.

But what causes oral cancer? Like all other cancers, oral cancer results from mutations in the genes that control cell behaviors. Normally, cells in the body grow and divide to form new cells as the body needs them. Over time, the cells grow old and die off, and new cells form to take their place. But sometimes new cells can form when the body doesn’t need them, and old cells may not die when they should. These extra cells can then form a mass of tissue called a tumor. These tumors can be benign, which means that they are not cancerous, or they can be malignant, which means they may be life-threatening.

WHERE THERE’S SMOKE, THERE’S CANCER

It may seem that this cellular activity happens outside of our control (or, more accurately, under our skin), and so we may think we have no control over whether or not we develop oral cancer. But research has shown that most oral cancers are linked to lifestyle choices. In fact, according to the Oral Cancer Foundation, a whopping 75 percent of oral cancers are related to tobacco use. That includes any kind of tobacco product: cigarettes, pipe tobacco, cigars, and smokeless tobacco such as snuff and chewing tobacco. Alcohol consumption has also been identified as a major risk factor for development of oral cancer, especially when used in conjunction with tobacco.
Other factors, such as a poor diet that is low in fruits and vegetables, genetics, liver functions, and certain medications, may be potential risk factors in the development of oral cancer as well, according to the American Dental Association. And, as with skin cancer, prolonged exposure to the sun may increase the risk of cancer on the lip. Now that you have an idea of what causes oral cancer, what can you do to protect yourself?

**EARLY DETECTION IS KEY**

One way to protect yourself against oral cancer is to have your dentist perform routine oral cancer screenings. While not nearing the fatality rate of lung cancer, which will result in 162,460 deaths in 2006, colon and rectum cancer, which will claim 55,170 lives this year, or breast cancer, which will kill 41,430 people this year, the death rate for oral cancer is especially high because it is oftentimes not detected until late in its development. The danger is that in its early stages, the cancer can go unnoticed. You may feel a slight lump on the inside of your cheek and think it’s just an abrasion, and since it can be painless, you might not think anything of it until it’s too late. That is because, many times, it is only diagnosed when the cancer has metastasized to another location, typically the lymph nodes. When this happens, prognosis is significantly reduced because the cancer has not been contained to a localized area.

That is why it is so important to have routine oral cancer screenings as part of your biannual dental checkup. And that is why the Massachusetts Dental Society (MDS) is encouraging you to also incorporate routine oral self-exams into your healthcare regimen. You can take an active role in detecting signs of oral cancer early by checking your oral tissues periodically. Take a few minutes to examine your lips, gums, cheek lining, and tongue, as well as the floor and roof of your mouth. To perform the exam, you will need a bright light and a mirror. (To find out how you can receive a free pocket mirror to use for oral cancer self-exams, please see “Mirror, Mirror, in My Hand . . .” below). Open wide and follow these steps:

- Look for any white or red spots inside your lips and around the inside of your cheeks.
- Pull your lip out to look for any raised or thickened areas at the front and inside of your gums.

**ASK YOUR DENTIST**

Other warning signs of oral cancer include a mouth sore that bleeds easily or does not heal within two weeks; pain, tenderness, or numbness anywhere in the mouth or on the tongue or lips; difficulty in chewing, swallowing, speaking, or moving the jaw or tongue; changes in the voice; changes in the way teeth or dentures fit together; a feeling that something is caught in your throat; and drastic weight loss. If any of these conditions persist, contact your dentist immediately to schedule a thorough examination.

It's important that you perform these self-exams and familiarize yourself with the geography of your mouth, but it's even more important to have a dental professional perform a complete examination because he or she may detect something you have missed. Your dentist knows exactly what to look for and can therefore quickly and easily check the oral tissues for signs of cancerous and precancerous lesions. Make sure that your dentist routinely performs an oral cancer screening as part of your regular dental checkup and cleaning. And if you believe this isn't being done, don't be afraid to ask.

Detecting and treating oral cancer as early as possible is critical in beating this potentially deadly disease. It’s your mouth; don’t you want to make sure you’re around for a long time to use it?

For more information on oral cancer, contact the Massachusetts Dental Society at (800) 342-8747 or visit www.massdental.org.

**Mirror, Mirror, in My Hand . . .**

The Massachusetts Dental Society (MDS) wants to help you maintain your oral health, and so we think it’s important that you develop the habit of performing routine oral cancer self-exams of your mouth and lips as the frontline of defense against oral cancer. That’s why the MDS has produced a pocket mirror that you can use to check your mouth for growths, lesions, or any changes to your oral region.

The first 500 readers to contact WORD OF MOUTH will receive a free oral cancer self-examination mirror. Just log on to the Public section on www.massdental.org, click on WORD OF MOUTH, and register. And then go look at yourself in the mirror.
According to the United States Census Bureau, nearly 75 million students will be heading back to school in September. Unfortunately, the National Youth Sports Safety Foundation reports that many of these students will become among the 15 million dental injuries, including 5 million knocked-out teeth, reported every year in the United States due to sports-related injuries. Why? Unless it’s mandated, the majority of student athletes do not wear mouthguards when playing contact sports.

As the name implies, mouthguards help prevent injury to the mouth area, especially the teeth, lips, cheeks, and tongue. According to the Massachusetts Dental Society (MDS), athletes are 60 times more likely to suffer damage to the mouth when not wearing a protective mouthguard. Fortunately, the Massachusetts Interscholastic Athletic Association mandates that seven organized school sports in the state require mouthguard use: soccer, football, ice hockey, field hockey, lacrosse, wrestling, and basketball.

When it comes to selecting the right mouthguard, you have some choices. There are three types of mouthguards: stock, boil-and-bite, and custom-made. Both stock and boil-and-bite mouthguards are available in most sporting goods stores and are the least expensive. However, they offer limited protection, are usually uncomfortable to wear, and may make breathing and speaking difficult. Alternately, the custom-made mouthguard is the best mouthguard by far in terms of fit, comfort, and protection because a dentist creates it from an exact impression of the athlete’s teeth.

In addition to averting injuries to the mouth, custom-made mouthguards are considered the key to preventing concussions. A custom-made mouthguard helps to keep an athlete’s jawbone and temporal mandibular (jaw) joint securely aligned. As a result, the force of blows causing concussions is absorbed. Concussions are widespread in hard-hitting contact sports such as boxing, where there is little protective gear worn and the objective is to hit your opponent harder than he or she hits you, and football, where players tackle each other over and over again.

Approximately 63,000 high school athletes sustain concussions each year. Repeated concussions can cause memory loss and, in some instances, permanent brain damage. As a result, many dentists are now fitting athletes who participate in aggressive contact sports with custom-made mouthguards that have double layers of protection and thus offer double defenses against mouth-related injuries and concussions.

In a recent study conducted at the University of the Pacific’s Arthur A. Dugoni School of Dentistry, 22 athletes tested the efficacy of single-layered versus double-layered custom-made mouthguards. The results of the study revealed that in terms of protection, personal preference, and comfort, the majority of athletes preferred the double-layered mouthguard.

If you or a family member participates in a hard-hitting contact sport, ask your dentist if he or she would recommend that you wear a double-layered mouthguard. Keep in mind that the cost of double-layered custom-made mouthguards may be higher than single-layered mouthguards, so be sure to contact your dentist’s office to find out what the fee will be.

The MDS has a mouthguard awareness program called **Grin and Wear It** in which participating MDS member dentists volunteer to fit school-age children with custom-made mouthguards for a discounted or nominal fee. Currently, there are more than 170 dentists across the state volunteering for this initiative. To access the list of dentists participating in the **Grin and Wear It** program or to learn more about mouthguards, log on to the Public section of [www.massdental.org](http://www.massdental.org) and click on Public Awareness or call the MDS at (800) 342-8747.
The Massachusetts Dental Society (MDS) recommends that you brush your teeth after every meal. So if you’re one of the millions of Americans who eat at least one meal on the job—usually lunch—the MDS recommends that you “bristle while you work,” too. If you keep a toothbrush at work, it’s estimated that the chances you will brush during the day will increase by 65 percent.

Why is it important for you to brush your teeth after your lunch hour? In addition to eliminating any signs of that tuna fish sandwich from your breath, getting debris off your teeth right after eating a meal stops sugary foods from turning into the damaging acids that cause cavities.

Here are some tips that may improve your work-time brushing habits: Post a sticky note on your computer or desk to remind you to brush after lunch. Store your toothbrush and toothpaste at work in a convenient place where you will notice it; however, make certain that your toothbrush is stored in a clean area and is protected properly with a toothbrush cover or travel container. And get into the habit of brushing your teeth right after lunch before you become absorbed in catching up on your voicemail and email.

If you don’t have a toothbrush at work or are out of the office at meetings, rinsing your mouth with water for 30 seconds after eating will at least help to wash away some of the cavity-causing debris. Additionally, studies have shown that chewing sugarless gum—especially gum containing xylitol as a main ingredient—after a meal also can help prevent tooth decay.

A daily routine of good dental care, in addition to regular checkups, is the key to healthy teeth and gums.

For more information on your oral health, contact the Massachusetts Dental Society at (800) 342-8747 or visit www.massdental.org.
If you’ve ever taken a lick of an ice cream cone or a sip of hot tea only to be met with an excruciatingly sharp pain in your tooth, or if brushing or flossing causes you to flinch, you may be suffering from sensitive teeth. But just what causes this condition, and how can you stop being so “sensitive”?

Sensitive teeth may be caused by many things, including cavities, a cracked tooth, worn tooth enamel, worn fillings, and exposed tooth roots, according to the American Dental Association (ADA). If a cavity, filling, or cracked tooth is behind this hypersensitivity, your dentist can rectify the situation by filling the cavity, replacing the filling, or fixing the fractured tooth. However, if your dentist determines that cavities and fractured teeth are not the source of the problem, then the cause could be either worn tooth enamel or an exposed tooth root.

All healthy teeth are composed of three layers of substances: enamel, cementum, and dentin. Enamel, the strongest substance in the body, protects the tooth’s crown, making up the top layer. Cementum, the middle layer, protects the tooth root under the gum line. Dentin, which can be found under the enamel and cementum, is the least dense part of the tooth. When the dentin loses its protective covering, hot and cold foods, as well as acidic or sticky foods, stimulate the nerves and cells inside the tooth, leading to hypersensitivity and discomfort.

Dentin can also be exposed when gums recede, leading to sensitivity near the gum line. Good oral hygiene is the best way to prevent gums from receding and causing hypersensitivity. Flossing regularly and brushing correctly—using a soft-bristled brush and not brushing too roughly, which can injure the gums and expose tooth roots—can help keep your gums healthy and prevent them from receding.

In the interim, desensitizing toothpastes may help reduce your discomfort. These toothpastes contain compounds that help block transmission of sensation from the tooth surface to the nerve. However, you should note that several applications are required before sensitivity is reduced.

Additionally, if desensitizing toothpastes do not offer you relief, your dentist may be able to treat you using in-office techniques, such as applying a fluoride gel that strengthens the tooth enamel and reduces the transmission of sensation. If you suffer from receding gums, your dentist may be able to “seal” the sensitive teeth by using agents, composed of plastic material, that bond to the tooth root.

Regardless of the severity of your sensitivity and discomfort, and even if desensitizing toothpastes temporarily alleviate the pain, you should visit your dentist to determine the cause of the sensitivity. Doing this will not only allow you to enjoy that ice cream cone pain-free, but it will help head off any conditions, such as exposed roots, that if left untreated could eventually require further treatment, such as a root canal. ☺

For more information on sensitive teeth or your oral health, please contact the Massachusetts Dental Society at (800) 342-8747 or visit www.massdental.org.
The Massachusetts Dental Society (MDS) will soon be rolling into a city or town near you. In an effort to help address the state’s dental access problem, the MDS recently acquired a mobile dental van through a grant from Procter & Gamble.

The Mobile Access to Care (MAC) van will travel to communities throughout Massachusetts to provide free dental screenings and basic treatment to children in need. It will be located at organizations that serve children, such as Boys and Girls Clubs, Head Start facilities, and YMCA’s. It may also go to selected schools in communities that have been identified as “low income.”

According to the “Children in Massachusetts, Children’s Defense” report, a child in Massachusetts is born into poverty every 54 minutes. This report further states that 12.3 percent of Massachusetts children are poor and 5.4 percent of Massachusetts children have no health insurance. The implications of untreated dental illnesses are not just cosmetic—they are serious and can be permanently debilitating. Significant tooth decay, pain, or infection can inhibit learning, speech, and eating, which can lead to problems in school, a negative self-image, poor nutrition, and systemic disease and disability.

The MAC van includes two fully equipped operatories. A dentist, dental assistant, and driver/coordinator will provide services on the van. Volunteer MDS member dentists will supplement additional staffing when the van travels to their communities.

In addition to providing dental services, the mobile van project is designed to give income-eligible children a “dental home.” Should a child require follow-up treatment after receiving initial free care on the van, the child’s parent will be offered an application for the MassDentists CARE (Combining Access with Reduced Expense) program.

Created by the MDS in 2005, MassDentists CARE provides dental services at reduced fees to children through the age of 18 from income-eligible families who do not have either dental insurance or MassHealth dental coverage. In order to qualify for the program, parents will be required to complete an application and provide financial verification, such as pay stubs, W-2s, or 1040 forms. Once approved, parents or caregivers will be given a list of MassDentists CARE providers in their area.

Dr. Robert Boose, MDS executive director, believes the mobile dental van will be an important first step in helping the most vulnerable population in the Commonwealth. “This van will provide dental care to those unable to advocate for themselves—children in need.”

The van is expected to be operational by late fall 2006 and will visit all 13 MDS dental districts in the state for up to three weeks each year. Beginning in October, you may access the van’s schedule by logging on to the Public section at www.massdental.org. For more information on the MAC van, contact the Massachusetts Dental Society at (800) 342-8747.
10. Go shopping. Let your child pick out a fun, new colorful soft-bristled toothbrush. If your child is ready for noises and vibrations, buy him a battery-powered brush.

9. Acknowledge that taste counts. When picking out a new tube of toothpaste, help your child choose different flavors. If she likes the taste, she’ll be more likely to brush again. “This week’s flavor is bubblegum!”

8. Use music to make brushing fun. A song typically lasts two to three minutes. Have your child brush until a song ends. You can also use a sand or egg timer.

7. Make brushing part of playtime. Use your child’s favorite doll or superhero action figure and invite your child to brush the toy’s teeth before brushing his own.

6. Keep score. Create a brushing chart and each night place a sticker on the chart after brushing and flossing are completed. Give the child a small reward, such as a book, at the end of each month of healthy brushing habits.

5. Split the difference. Your child brushes half of her teeth and then mom or dad brushes the rest.

4. Remember that timing is everything. Have your child brush right after dinner or before a favorite television show. This way, the child doesn’t have to wait until bedtime, when he is sleepy.

3. Walk the walk. Your child will follow your actions more than your words. It’s important that children see parents brush and floss regularly.

2. Spread the joy. You need to show your child that brushing is an enjoyable thing to do rather than a chore. Let your child brush your teeth and laugh out loud while she is doing it.

1. Let your enthusiasm be contagious. Praise your child for doing a good job. Tell him how awesome and shiny his teeth look, and encourage him to show off his smile.

For more information regarding children’s dental health, contact the Massachusetts Dental Society at (800) 342-8747 or visit our Web site at www.massdental.org.
In the past few years, the prescription drug market has grown into a very profitable industry. According to an August 2005 *Time* magazine article, global prescription drug sales total approximately $400 billion a year. And just try watching an episode of *Lost* or *Grey’s Anatomy* without being subjected to at least one commercial for some new medication. But among the possible side effects of prescription drugs that you should be aware of is the ill effect some of these drugs can have on your oral health.

There’s no argument that many prescription medications can be a vital tool in your overall healthcare arsenal, in terms of both treating and preventing illnesses and chronic medical conditions. However, many of these medications, both prescribed and over-the-counter, that are taken for minor and major health concerns can have a negative impact on your oral health, leading to side effects such as dry mouth, soft tissue changes, gum tissue overgrowth, and taste changes, according to the American Dental Association.

But just which prescription drugs do you need to be concerned about? According to the Academy of General Dentistry, up to 400 medications can contribute to symptoms associated with dry mouth. The usual suspects include antihistamines, decongestants, painkillers, muscle relaxants, tranquilizers, diuretics, and antidepressants, as well as drugs for the treatment of high blood pressure, Parkinson’s disease, and incontinence. Saliva in the mouth does more than just lubricate; it helps wash away food particles and bacteria, helping to prevent tooth decay. So a lack of saliva can lead to an increased chance for cavities.

Besides being uncomfortable and annoying, a dry mouth can also lead to irritation of the soft tissues in the mouth, which can make them inflamed and more susceptible to infection. Some medications, including those for blood pressure control, immunosuppressive agents, oral contraceptives, and chemotherapeutic agents, have been linked to the development of oral sores or ulcers, inflammation, or discoloration of the soft tissues in the mouth, leading to discomfort.

Another side effect of some medications is overgrown or enlarged gum tissue, also known as “gingival overgrowth.” This condition can be a side effect of antiseizure medications; immunosuppressant drugs, which are taken after organ transplants; and calcium channel blockers, which are taken for heart conditions.

**A Matter of Taste**

And if it’s a matter of “taste,” you should know that some medications you take might leave you with a metallic or bitter taste, or even affect your ability to taste at all. Cardiovascular agents, central nervous system stimulants, respiratory inhalants, and smoking cessation products may be behind this side effect.

If you exhibit any of these symptoms, be sure to tell your dentist. He or she may prescribe a special oral hygiene regimen to help alleviate your symptoms and maintain your oral health. You should also always inform your dentist of any over-the-counter (including herbal supplements) or prescription drugs you are taking, as these could interact with and adversely affect your treatment plan.

For more information on your oral health, please contact the Massachusetts Dental Society at (800) 342-8747 or visit [www.massdental.org](http://www.massdental.org).
When it Comes to

Teeth Whitening,
Age Should Come Before Beauty

Teenagers these days are bleaching more than just their hair. One of the latest trends among adolescents—not to mention their parents—is teeth whitening. However, according to the Massachusetts Dental Society (MDS), when it comes to whitening teeth, young patients should keep their minds open and their mouths shut—at least for a while.

In this age of reality TV makeover frenzy, many people, including teenagers, are making changes to improve their appearance. And for teenagers, physical appearance is an important element of peer pressure. But if this includes teeth, then white may not always be right.

Methods of Whitening

There are three ways you can bleach your teeth, with two of these methods requiring the expertise of a dental professional. You can purchase over-the-counter whitening products and do it yourself at home; this typically involves applying pretreated strips or gel directly to your teeth for a set amount of time each day. Or you can visit your dentist for chair-side bleaching, where the dentist applies a chemical solution to your teeth and may use a special light to help activate the bleaching agent. To achieve optimum results with this method, several visits may be required. Lastly, your dentist can provide you with at-home bleaching trays, which can be either prefilled ready-made trays or custom-fitted trays that you add bleaching gel to and wear during the day or at night. (Note that the latter are custom-fitted to your teeth and will, therefore, fit perfectly and more comfortably, meaning that the bleaching agent has a better chance of sustaining exposure to your teeth.)

The main difference between store-bought bleaching kits and take-home systems from your dentist is that over-the-counter products contain about 5 percent or less of active whitening ingredients, whereas a dentist uses products that have 10 to 35 percent of active whitening ingredients, which, obviously, means whiter teeth.

But, according to the MDS, whether teeth whitening is done by a dentist or with over-the-counter products, no one under the age of 14 should whiten their teeth because teeth are still developing before the age of 14. If children whiten both permanent and primary (baby) teeth, the outcome could be mismatched, discolored teeth. That is, permanent teeth that have erupted will be whitened through bleaching treatment and primary teeth will still have their own natural color. In addition, it takes time for permanent teeth to fully emerge from the gums. As a result, a teenager could have teeth that are noticeably whiter on the biting surfaces only.

Adolescents will most likely buy the store-bought whitening products because they are more accessible and cheaper than professional whitening. Over-the-counter products are safe and generally effective if the directions are followed. However, before using store-bought products, patients of all ages, including teenagers, should contact their dentist to determine any potential problems that might be caused by over-the-counter whitening. Prior to using professional or store-bought whitening, all patients are urged to come in for an exam and cleaning to ensure that their teeth and gums are healthy to begin with and to fully understand their treatment options.

Some common side effects of whitening are gum irritation and sensitive teeth. However, these side effects usually subside once the bleaching treatment has stopped. Something else to keep in mind is using whitening products too much or for too long. If you whiten your teeth without professional supervision, you risk overdoing it and could seriously damage your tooth enamel.

For more information on teeth whitening, contact the Massachusetts Dental Society at (800) 342-8747 or visit our Web site at www.massdental.org.
Liquor to relieve a toothache?
Although alcohol has been proven to dull the mind and the senses, it has no value as a home remedy for oral health problems. According to the American Dental Association (ADA), alcohol will not clear up an infection in the mouth, nor does it have any value as a local anesthetic. The other issue, says the ADA, is that toothaches are often early symptoms of problems that, if left untreated, can only get worse.

If you’re allergic to peanuts,
beware if you’re kissed by someone who has just eaten a peanut butter sandwich. In a study presented at the American Academy of Allergy, Asthma and Immunology, researchers reported that they fed peanut butter to volunteers and tested their saliva. They found that, in most cases, it took up to four hours to remove all evidence of peanuts, even if they brushed their teeth and rinsed their mouths right after eating.

Soldiers may soon be packing more than a gun.
They could also be packing gum. The stress of combat is believed to cause an increase in bacterial growth in the mouth. Therefore, Army and civilian scientists are developing a gum for combat soldiers who can’t stop to brush. The gum, announced at the American Association of Pharmaceutical Scientists convention in Nashville, would contain a special bacteria-fighting agent designed to prevent tooth decay, plaque, and gum disease.

If mints and gum don’t work in fighting bad breath, why not try a stick of celery? Researchers say that while there are certain foods that can cause bad breath, there are others that may actually reduce it. Such foods as fruits and vegetables, including berries, citrus fruits, melons, and other foods rich in vitamin C, can create an environment in your mouth that bacteria actually don’t like.

Cro-Magnon dentist?
Researchers have now found that dental drilling goes back as many as 9,000 years ago, which is 4,000 years earlier than first thought. According to the journal Nature, researchers carbon-dated 11 drill holes found in skulls that date back to between 5500 BC and 7000 BC. The 11 drilled teeth were molars.
Brushing, flossing, and regular visits to your dentist are still the three best ways to a healthy mouth. But brushing with a toothpaste containing fluoride is as important to adults as it is for children in order to avoid tooth decay leading to cavities.

And while most people routinely brush first thing in the morning and at the very end of the day, the Massachusetts Dental Society also recommends that you consider taking two minutes after eating lunch to brush your teeth in order to remove any food particles left in your mouth, as well as to freshen your breath for the rest of the day and evening.

Having a healthy mouth with fresh breath . . . aren’t those two things that everyone can agree on?