Balancing Your Oral Health and Your Overall Health
A Healthy Mouth Can Mean... We all know the singsong rhyme from our childhood: "The hip bone’s connected to the thigh bone." But is recent research surrounding oral health resulting in the need for a new verse to be added to that song: "Your oral health’s connected to your overall health?"

There’s been much talk lately about the relationship between oral health and systemic (overall) health. You may have seen news reports in late February about Deamonte Driver, a 12-year-old boy from Maryland who lost his life due to a severe infection that was caused when bacteria from an untreated abscessed tooth spread to his brain, resulting in two brain operations and ultimately his tragic death. It’s a frightening and sobering story, but one that only further highlights the oral-systemic connection.

The Massachusetts Dental Society wants you to know that your oral health does indeed play a part in your total health. Specifically, poor oral health has been shown to be a precursor or indicator of heart illness, stroke, diabetes, low-birth-weight and/or premature births, and even mental health issues such as depression. According to the Academy of General Dentistry (AGD), research shows that more than 90 percent of all systemic diseases have oral symptoms. Dentists know that your teeth and gums hold important clues to other health issues, which means that those twice-a-year visits to your dentist can be an even more important tool in helping you maintain not just a healthy smile, but also a healthy body.

Heart Disease and Stroke Perhaps the most talked-about oral-systemic connection surrounds the link between periodontal (gum) disease and cardiovascular disease and stroke. Still, it may surprise you to learn that the plaque that develops on your teeth is the same plaque that causes heart attacks. The most common strain of bacteria in dental plaque can escape into the bloodstream, travel through the arteries, and cause blood clots that induce heart attacks. A potentially fatal disease called bacterial endocarditis — a condition in which the lining of the heart and heart valves becomes inflamed — is also linked to plaque, as is chronic obstructive pulmonary disease, more commonly known as COPD. People with periodontal disease are nearly twice as likely to suffer from coronary artery disease, according to the American Academy of Periodontology.

Researchers from the Boston University School of Dental Medicine reported in a 2006 study in the Journal of Periodontology that people who are missing some or all of their teeth due to periodontal disease are at an increased risk for having a stroke. According to the study, evidence associating severe periodontitis with an increased risk of forming atherosclerotic plaques, which are responsible for myocardial infarction and ischemic stroke, continues to mount.

And another not-so-fun fact: At the annual meeting of the American Association for the Advancement of Science, it was announced that when researchers injected rabbits with dental plaque, blood clots began forming within minutes.

As you can see, research suggests a very strong link between healthy gums and a healthy cardiovascular system — which is why it’s important that you take good care of your gums (and your teeth). Gum disease, which is also called gingivitis in its early stages, is caused by plaque buildup. Signs of gum disease include bleeding or puffy gums, halitosis (bad breath), mouth sores, and receding gums. Preventing plaque buildup by brushing (at least twice a day for two minutes each session; see “Two-Minute Warning” on p. 4) and flossing regularly, along with visiting your dentist every six months, can help prevent gum disease, which could help reduce the risk of cardiovascular problems.

Diabetes Diabetes is another health issue with a strong connection to oral health. Diabetes is a disease in which blood glucose levels are above normal, and this can lead to serious health complications, including heart disease, blindness, kidney failure, and lower-extremity amputations.
But it also has some oral health ramifications. The most common and potentially harmful oral health problems resulting from diabetes are gingivitis and periodontitis, a more severe form of periodontal disease where the gums and bone supporting the teeth become seriously damaged and result in tooth and bone loss.

Periodontitis is often linked to the control of diabetes, according to the American Dental Association. Patients with inadequate blood sugar control appear to develop periodontitis more often and more severely, and they lose more teeth than do those who have good control of their diabetes. And because diabetes reduces the body’s resistance to infection, the gums are among the tissues likely to be affected. Since we know that periodontal disease is connected to heart disease, that means that if you have diabetes, it’s important that you also maintain good oral hygiene to prevent periodontal disease and further health complications.

**Periodontitis and Pregnancy**

As for pregnant women, studies have shown a relationship between periodontal disease and preterm, low-birth-weight babies. According to the American Academy of Periodontology, pregnant women with periodontal disease may be seven times more likely to have a baby born too early and too small. (Low-birth-weight babies have a higher incidence of breathing problems, anemia, jaundice, mental retardation, cerebral palsy, congestive heart failure, and malnutrition.) The likely culprit is a labor-inducing chemical found in oral bacteria called prostaglandin. Very high levels of prostaglandin are found in women with severe cases of periodontal disease, which makes maintaining good oral health that much more important if you’re expecting.

Additionally, gingivitis is especially common during the second to eighth months of pregnancy and can result in red, puffy, or tender gums that bleed when you brush your teeth. This sensitivity is an exaggerated response to plaque and is caused by an increased level of the hormone progesterone in your system. If you are pregnant and suffer from gum sensitivity, talk to your dentist, who may recommend more frequent cleanings during your second trimester or early third trimester to help you avoid problems.

**Depression**

While we all know that it is truly “what’s inside that counts,” the importance of a person’s positive self-image is still a contributing factor to one’s self-esteem, and a positive self-image can often be enhanced by an attractive smile and fresh breath. Therefore, there certainly are also psychosocial implications of good oral health. Missing or misaligned teeth, bleeding or swollen gums, bad breath, and chronic pain resulting from an infected tooth are just a few of the oral health symptoms that can affect one’s self-esteem, making one less inclined to smile and more seriously affecting one’s overall mood, disposition, and sense of self.

**Conclusion**

So if you’re interested in enhancing your overall health, as well as your smile, visit your dentist for a checkup and cleaning at least twice a year. A regular exam allows your dentist not only to help maintain your oral health, but to be on the lookout for developments that may point to problems elsewhere in your physiology. A dental exam can also pick up early signs of oral cancer, which is often linked to smoking; growth and development problems; improper jaw alignment; and poor nutrition, such as eating disorders.

Be sure to inform your dentist about changes in your oral health, including any recent illnesses or chronic conditions—even if they seem unrelated to your mouth—and provide him or her with an updated list of all medications you are taking, both prescription and over-the-counter. And make sure to follow your dentist’s recommendations, including any prescribed homecare regimen. Then smile your way to a healthier you.
A lot can happen in two minutes. We New Englanders understand this all too well. As our weather and professional sports teams continually remind us, two minutes can truly make a difference. In 120 seconds, we’ve seen a balmy day turn frigid and then settle into mild perfection, and our sports teams have many times won, lost, and regained victory all within the final two minutes of play. But there are other changes possible requiring just two minutes that can affect your oral health and subsequently your overall health.

The Massachusetts Dental Society wants you to consider the two-minute rule for brushing your teeth.

The generally accepted bare minimum for brushing your teeth with a fluoride toothpaste is two minutes, twice a day. This general guideline of two minutes ensures that you spend enough time brushing your teeth to remove any built-up food particles and plaque, as well as to apply fluoride to tooth surfaces to help prevent cavities.

There are several methods that you can use to make sure you reach the two-minute mark during a brushing session:

- Time yourself with an egg timer or a stopwatch.
- Buy a toothbrush with a built-in timer (several manufacturers now offer toothbrushes with two-minute timers or clips of popular songs to entertain you while you brush).
- Hum a pop song from beginning to end while brushing (such songs rarely run longer than three minutes).
- Brush from the start to the end of two 60-second or four 30-second commercial breaks while you’re watching your favorite television show.

In the end, however, the important thing is not just how you count down the seconds, but that you make those seconds count by brushing correctly. You want to be sure to use a soft-bristled brush, as a hard-bristled one may damage your tooth enamel. And you don’t need to scrub vigorously; a gentle brushing is enough to remove any plaque or food particles from your teeth. It’s a good idea to review the proper brushing technique with your dentist or dental hygienist at your next cleaning.

Although the oral hygiene rulebook calls for brushing your teeth twice a day for two minutes, don’t be afraid to send your toothbrush into overtime. Ideally, you should brush after each meal for a minimum of two minutes but you can go upwards of four minutes. And a quick brushing after snacks—especially sweets, sticky foods, or sugary beverages—is always a good idea and can help you score a healthy mouth.

For more information on oral hygiene or your oral health, contact the Massachusetts Dental Society at (800) 342-8747 or visit us online at www.massdental.org.
It’s an undeniably cute image: a cherub-faced toddler with a thumb or a pacifier planted firmly in his or her mouth. Sucking is one of an infant’s natural reflexes—it’s how the child gets his or her nutrition, after all—but as babies grow into toddlers, who grow into preschoolers, the act of sucking can take on a different purpose. For many children, it is a means of feeling safe, secure, and happy. They may suck on their thumbs or on pacifiers to soothe themselves. And since sucking is relaxing, it may help induce sleep, which may make Mom and Dad more relaxed. But one thing parents shouldn’t be too lax about is the awareness that sucking objects may be harmful to their child’s future oral health.

After the permanent teeth come in, sucking may cause problems with the proper growth of the mouth and alignment of the teeth. Sucking may also cause changes in the roof of the mouth.

Not all sucking is equal, however. A main determinant of whether or not dental problems may arise is the intensity of the sucking. Children who vigorously suck their thumbs or pacifiers are more likely to have problems than children who rest the thumb or object passively in their mouths. Aggressive suckers may even cause problems with their baby (primary) teeth. If you notice changes in your child’s primary teeth, consult your dentist. And if your child is currently using a pacifier, make sure it has a symmetrical nipple, which permits the pacifier to remain in the correct sucking position.

Usually, children stop sucking between the ages of 2 and 4, but in order to avoid any potential problems in the development of their teeth, children should stop sucking by age 2, according to the Academy of General Dentistry (AGD). Up until that age, any alignment problem with the teeth or the developing bone tends to correct itself within a six-month period after the sucking is stopped, says the AGD. This is why it is important that children refrain from prolonged reliance on thumbsucking or pacifiers by the time the permanent front teeth are ready to erupt.

So how do you help your child break the habit of sucking on a thumb or pacifier? Here are some tips to help you get started:

- Praise children for not sucking, instead of scolding them when they are.
- Children often suck their thumbs when they feel insecure or need comfort. Focus on correcting the cause of the anxiety and provide comfort to your child.
- Involve older children (ages 3 or 4) in choosing the method of stopping.
- Enlist your dentist to offer encouragement to your child and explain what could happen to his or her teeth if he or she does not stop sucking.

If the above tips don’t work, you can dip the pacifier in white vinegar to make it taste less appealing, or use the “cold turkey” approach by hiding the pacifier or “leaving it behind” on a trip.

It may not be easy, and it may involve many tears and some sleepless nights, but the positive impact that “breaking the habit” will have on your child’s oral health will be well worth it.

For more information on your child’s oral health, contact the Massachusetts Dental Society at (800) 342-8747 or visit our Web site at www.massdental.org.
For seniors who have lost all of their natural teeth, whether from periodontal disease, tooth decay, or injury, dentures can replace missing teeth and significantly improve one’s smile. But not unlike natural teeth, dentures must be properly cared for to last.

Dentures are very delicate and may break even if dropped just a few inches. When handling your dentures, you should stand over a folded towel or a sink filled with water.

Daily brushing will remove food deposits and plaque and help prevent the artificial teeth from becoming permanently stained. While it is best to use a brush made specifically for cleaning dentures, a toothbrush with soft bristles will also do. Avoid hard-bristled toothbrushes, which can damage dentures.

Some denture wearers use hand soap or mild dishwashing liquid, which are both acceptable for cleaning dentures. However, be sure to avoid powdered household cleaners, which may be too abrasive. Your dentist may recommend a denture cleaner, as well.

To clean the dentures, rinse off loose food particles. Moisten the brush and apply the cleanser. Brush every surface gently to avoid damage.

Don’t let dentures dry out or they could lose their shape. When not wearing your dentures, place them in a denture cleaner soaking solution or in plain water. Never soak dentures in hot water, which can cause them to warp. Store them in a safe, secure place, such as on a shelf inside the bathroom vanity.

And don’t forget about the rest of your mouth. If you wear full dentures, you still need to take good care of your mouth. Brush your gums, tongue, and palate twice a day with a soft-bristled brush before you insert your dentures or after you take them out. This stimulates circulation in your tissues and helps remove plaque. Eating a nutritious diet is also important for maintaining a healthy mouth.

Denture Adjustments
See your dentist immediately if your dentures break, crack, or chip—or if they become loose. Poorly fitting dentures can cause sores in the mouth and may make eating and speaking difficult. Also, never try to adjust dentures yourself. This can damage the dentures further and could cause oral health problems. Additionally, you should make it a point to see your dentist at least once a year for a soft-tissue exam to make sure that your gums are healthy and that your dentures are continuing to fit properly. At that time, your dentist can also conduct an oral cancer screening and examine your remaining natural teeth.

For more information on dentures or your oral health, please contact the Massachusetts Dental Society at (800) 342-8747 or visit our Web site at www.massdental.org.
Say “Boo” to Chewy Candy

With nearly 6 percent of young children in the United States suffering from various food allergies, parents are more conscious than ever of the kinds of foods they give to kids. With Halloween around the corner, the Massachusetts Dental Society (MDS) says the same can also be said for the candy given out on All Hallows’ Eve.

These days, many parents recognize that some trick-or-treaters are unable to eat chocolate or other candies that contain nuts or dairy products. As a result, more people seem to be giving out chewy fruit snacks or “gummy” candy on Halloween night because they don’t generally contain high-risk allergens.

Although this may be a safer option for children suffering from food allergies, it may not be the best alternative for their teeth, particularly for those who wear braces. These types of candies get easily stuck between teeth and orthodontic brackets and, therefore, are not as easily brushed away. And as a result, they have more potential to cause cavities. A healthier alternative would be prepackaged pretzels or even small toys, such as stickers or pencils.

However, when it comes right down to it, parents and others shouldn’t fret too much over their choice of candy for trick-or-treaters. Halloween comes only once a year; what’s more important is the frequency with which candy is eaten. The best advice the MDS can give to parents is not to let Halloween treats hang around the house for too long. You may want to consider allowing kids to have a few pieces of candy each night for one week, and then throwing the rest out. The frequency of sugar consumption has a lot to do with how cavity-causing decay forms in the mouth. Also, parents should be diligent in making sure that their children brush and floss their teeth right after eating their candy.

As long as parents are smart about their children’s candy consumption, many oral health problems can be avoided. So “chews” wisely.

For more information on children’s oral health, call the Massachusetts Dental Society at (800) 342-8747 or visit www.massdental.org.
If you’re missing one or more teeth, you needn’t walk around with your hand over your mouth or your lips clenched shut, embarrassed to smile. Innovations in dental technology over the last decade have presented patients with a couple of options for replacing missing teeth: dental implants and bridges. Implants are artificial teeth that are surgically placed below the gums, fused to the jawbone. However, candidates for implants need to have healthy gums and adequate bone to support the implant. If these criteria are not met, some patients may need to seek another alternative, and your dentist can help you “bridge the gap” and fill that missing space.

A dental bridge is an artificial tooth or number of teeth, custom-made and cemented into place in your mouth. It’s called a “bridge” because it literally acts like a bridge, connecting the two adjoining teeth, called the abutment teeth.

Bridges can be either fixed or removable. Fixed bridges are applied by cementing the artificial tooth (also called a pontic) to two crowns, which are placed on the abutment teeth to provide support for the artificial tooth, or by bonding the artificial tooth directly to the abutment teeth. Removable bridges are attached to the abutment teeth by either metal clasps or precision attachments. And as the name implies, you can take out a removable bridge yourself to clean it, whereas a fixed bridge can only be removed by your dentist.

Besides their esthetic benefit, bridges help you maintain your oral health. When a tooth or teeth are missing, the remaining teeth can shift or rotate to fill the empty space or spaces, resulting in an uneven bite. This poor bite can lead to stress on the remaining teeth and jaw, resulting in headaches, mouth pain, and temporomandibular joint (TMJ) disorders. Bridges also can help you maintain the shape of your face and prevent any speech or chewing problems that can result from missing teeth.

There are three different types of bridges, and your dentist will recommend the most appropriate one based on the location and condition of the surrounding teeth. A traditional bridge involves creating an artificial tooth held together by two crowns, which are attached over the teeth on either side of the missing tooth. A cantilever bridge is used when there are adjacent teeth on only one side of the missing tooth or teeth. The last type, a Maryland bridge (also called a resin-bonded bridge) is made of an artificial tooth or teeth with metal wings or bands on each side of the bridge. These wings or bands are then bonded to the abutment teeth.

Most bridges can last from seven to 10 years, but as with the rest of your teeth (and your gums, too), proper oral hygiene is critical to ensure the health of your bridge. Like the real structure for which it’s named, a bridge is only as strong as its foundation, so making sure you have healthy surrounding teeth and gums is important. You should carefully brush and floss daily to remove any food particles that could become lodged. A plastic threader is a safe and easy way to floss the hard-to-reach area between your bridge and abutment teeth or gums. Your dentist or dental hygienist can show you how to floss using a threader. You may also want to avoid chewing any hard and/or sticky snacks—such as popcorn, caramel, hard candy, and ice—that can damage the bridge.

If you have any questions about bridges or your oral health, contact the Massachusetts Dental Society at (800) 342-8747 or visit www.massdental.org.
With baseball season well under way, young fans are watching their favorite players hit home runs, steal bases, and argue over foul balls. Unfortunately, they also see "fouls" of another kind—players spitting out chewed-up tobacco and tobacco juice on the field and in the dugout.

The Massachusetts Dental Society and the Dana-Farber Cancer Institute are partnering to spread the word that chewing tobacco, otherwise known as spit or smokeless tobacco, is not a safe alternative to smoking. In fact, according to the National Spit Tobacco Education Program (NSTEP), the nicotine content in a can of smokeless tobacco is approximately 144 milligrams, which is equal to about 80 cigarettes. In other words, one can of smokeless tobacco is equal to four packs of cigarettes.

Smokeless tobacco is absorbed quickly and directly through the inside of the mouth, making it very dangerous, according to the Massachusetts Dental Society.

In a 2005 survey by the Centers for Disease Control and Prevention, approximately 12,000 male high school students in Massachusetts reported using chewing tobacco on at least one of the 30 days preceding the survey. Furthermore, many health care groups fear that due to the increasing number of smoking bans mandated, there is a strong possibility that this number will rise.

Meanwhile, industry analysts, tobacco control advocates, and health care providers are watching as a new smokeless tobacco product is being marketed to the public. This chewing tobacco “pouch” does not need to be chewed or spit. Instead, users swallow the tobacco juices produced as the pouch rests on the gum line. Anti-smokeless tobacco advocates fear that teenagers will be attracted to this new product because it is easier to conceal and not as offensive to others. However, there are potentially serious health risks associated with any type of tobacco, including these pouches.

The most serious effect of using smokeless tobacco is an increased risk of oral cancer. Research has shown that more than half of all smokeless tobacco users have noncancerous or precancerous lesions in their mouth, with the chance of their getting oral cancer 400 percent greater than for nonusers. In addition, smokeless tobacco erodes teeth and gums.

So when teens see their favorite athletes or other individuals using smokeless tobacco, the MDS and Dana-Farber recommend they keep in mind the story of Bill Tuttle, an outfielder who played for the Detroit Tigers and the Minnesota Twins in the 1950s and 1960s. Tuttle chewed tobacco throughout most of his baseball career and developed oral cancer. As a result, doctors had to remove his jawbone, right cheek, many of his teeth, his gum line, and his taste buds. He eventually died of the disease in 1998.

For more information on oral cancer and smokeless tobacco, contact the Massachusetts Dental Society at (800) 342-8747 or visit our Web site at www.massdental.org.
As parents, you know that children grow at their own pace, each different from the other. One child may start walking at an earlier age, while another may stick to crawling; one may be in the 98th percentile of height for his or her age group, while another may be a late bloomer. So how do you know when the time is right to have your child's teeth checked to determine if he or she will need braces? Brace yourself—it may be earlier than you think.

The recommendation of both the American Dental Association and the American Association of Orthodontists is that all children be evaluated by an orthodontist on or before their seventh birthday.

Today, the modern orthodontic approach involves examining the child as a whole person and not just their teeth. Orthodontists do not just move teeth around. This has been a huge misconception carried over from older orthodontic philosophies.

While the cosmetic appeal of having straight teeth is the desired outcome, for many people getting braces is about more than just a pretty face. In many instances, a child (or grown-up—many adults are now sporting braces to correct problems and to improve their smiles) will suffer from what is called a malocclusion, which literally means “bad bite.” Some examples of malocclusion are crowded teeth, overbites or underbites, extra or missing teeth, and jaws that are out of alignment. But malocclusions can also be acquired through accidents, thumb-sucking, and early or late loss of baby teeth.

Seven may seem like an early age for your child to start the process of getting braces, but there are benefits to not waiting too long. Early interceptive orthodontic goals include helping to prevent the extraction of adult teeth or the need for surgery, as well as lessening the psychological impact of severe dental and skeletal misalignments. Early treatment is also aimed at improving facial development (facial proportions) by correcting harmful habits, such as thumb-sucking, and by improving airway function.

Early treatment may simply involve referring a child to an ear, nose, and throat (ENT) physician to get an airway evaluation. The recognition and correction of a partial airway obstruction will often improve the quality of a child’s life. Additionally, orthodontia can alleviate potential problems such as headaches, jaw pain, earaches, mouth breathing, and sleep apnea.

A 7-year-old child often has 20 baby teeth and four adult teeth, and the length of early treatment can vary, depending on the condition. Usually, treatment takes 18 months or less. The more complicated the spacing or bite problem that needs correcting—and the older the child—the longer the course of treatment. Older children can expect to wear braces for anywhere from 18 to 30 months, depending on the severity of the problem and the health of the teeth, gums, and supporting bone. After the braces are removed, the child will be required to wear a retainer to help the teeth stay in their new positions.

Consultation with an orthodontist when your child is seven is a minimal cost in exchange for correcting potential problems. And early treatment by an orthodontist may be less costly than the restorative dental care that may be required to treat more serious problems in later years. If treatment is suggested at this time, consider the rationale behind proceeding with it, and then decide if it makes sense.

For more information on orthodontia or your child’s oral health, contact the Massachusetts Dental Society at (800) 342-8747 or visit our Web site at www.massdental.org.
Dental X-rays Go Digital

In this modern age of digital technology, it is difficult for anyone to escape the "digital" reach. Digital cameras, digital music, digital televisions, and even digital telephones are everywhere. But you might not realize that when you visit your dentist's office, the X-rays that are taken there are often digital, as well. Dental radiography has emerged on the cutting edge of technology, and it is here to stay.

So what does this mean for you, the patient? Well, digital X-rays offer many clear-cut benefits to the patient, as well as the dental office.

For one thing, dental personnel can now get an image using a small fraction of the previous radiation dosage. This means less radiation exposure for you. Another plus is that your dentist can get an instant image using special dental digital sensors. The sensor replaces film, so no time-consuming developing is necessary, which means less time in the dental chair for you.

Additionally, dental team members can manipulate the radiograph to show many different views, thus reducing the number of X-rays necessary. The ability to easily produce multiple views can help speed up diagnosis time, which again means less chair time for you. As an added benefit, dental personnel are no longer exposed to the chemicals of film developing.

Historically, medicine has always used advances in technology to stay on the cutting edge, and dentistry is no different.

MAC Van Continues on a Roll

The MDS Foundation Mobile Access to Care (MAC) Van continues to travel across the state, providing free dental care to underserved children in Massachusetts. As of July 31, the MAC Van had visited more than 50 locations—such as Boys & Girls Clubs, Head Start programs, and schools, to name a few—providing approximately $193,000 worth of dental services to 694 children. More than 100 volunteers—MDS member dentists, dental assistants, and dental hygienists—have provided oral care to children on the Van, including sealants, screenings, comprehensive exams, fluoride treatments, bitewing X-rays, and fillings. Many of the children treated on the MAC Van have had a significant level of dental decay, and for some, this was their first dental visit ever.

For the latest schedule of service dates and locations in the coming months, please visit www.mdsfoundation.org/macvan.
He may not know it, but right now, he’s also drinking 10 teaspoons of sugar.

If he continues to drink soda regularly, what are the chances that he’ll eventually experience tooth decay?

The Massachusetts Dental Society says “You Can Count on It.”

More and more children and teenagers today have come to consider drinking soda and other sugar-filled beverages to be a regular part of their daily routine, including at mealtime. Even with regular brushing and flossing, both diet and regular sodas can harm a child’s tooth enamel and cause decay leading to cavities.

By providing children with better nutritional options, we will not only be Canning Tooth Decay, but also encouraging them to make healthier choices that are just as easy to swallow.

For a free copy of the brochure Canning Tooth decay, contact the Massachusetts Dental Society at (800) 342-8747.