



word of mouth®

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 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 Web site 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 of Publications and Web Site, Massachusetts Dental Society, Two Willow Street, Suite 200, Southborough, MA 01745-1027, or email mcarman@massdental.org.

Robert E. Boose, EdD
Executive Director

Scott G. Davis
Chief Communications Officer

Melissa Carman
Managing Editor, Publications and Web Site

Jeanne M. Burdette
Manager, Graphic Design

Shelley Padgett
Graphic Designer

Michelle T. Sanford
Manager, Community Relations and Dental Access

Andrea Dotterer
Communications Assistant

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A Healthy Mouth Can Mean a Healthier You

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.

For more information on how oral health affects your overall health, contact the Massachusetts Dental Society at **(800) 342-8747** or visit www.massdental.org.



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.

