

# Can your heart be hurt by your mouth?

By Dr. Robert A. Levine

Sounds ridiculous, doesn't it? How could your mouth hurt your heart? Especially since I don't mean something you really regret saying to your spouse, your best friend, or your child. But the answer, regrettably, is YES.

Gum disease – an often hereditary infection of the gums that eventually infects the jawbone anchoring the teeth – can send oral bacteria through the bloodstream, which may be deposited in the heart valves and arteries. Once deposited, research strongly suggests that these oral toxins contribute to heart disease (heart valve infection and hardening of the arteries.)



**Robert A. Levine, DDS, FCPP**

*Dr. Robert A. Levine is a renowned implant surgeon and periodontist, highly respected in the dental community for his extensive training and expertise.*

*Clinical Professor in the Department of Periodontology and Oral Implantology at Temple University Kornberg School of Dentistry.*

*Clinical Associate Professor in Periodontology, Post-Graduate Periodontics, Periodontal Prosthesis and Implantology, University of Pennsylvania School of Dental Medicine.*

**Pennsylvania Center for Dental Implants and Periodontics**

Einstein Center One • Suite 211  
9880 Bustleton Avenue  
Philadelphia, PA 19115  
215-677-8686

info@padentalimplants.com  
www.padentalimplants.com

In fact, it's such a recognition of the harmful interaction between mouth bacteria and the heart that has made it standard practice to administer antibiotics, prior to most dental procedures, to patients who have a heart murmur. (This is because damaged heart valves are at highest risk for an infection known as "infective endocarditis," an inflammation of the interior lining of the heart and heart valves.)

Not coincidentally, researchers have concluded that people with gum disease, also called periodontal disease, are twice as likely to suffer from coronary artery disease. (Oral bacteria attach to the fatty plaque build-up in the coronary arteries and may contribute to arterial clot formation.) Periodontal disease is, in fact, now believed to be an important risk factor for heart problems – in concert with such other risk factors as age, smoking, diabetes, hypertension and elevated blood cholesterol.

And heart disease (like periodontal disease) is very common in this country. The American Heart Association estimates that 58 million people suffer from cardiovascular disease. That's one person in every five. Small wonder it's the number one cause of death among Americans.

But, like all the other risk factors for heart disease (except age) gum disease can be treated and often reduced in its risk, if not eliminated, as a factor in the development of heart disease.

How? First, you have to know whether you have it. A number of commonly experienced symptoms exist. Most often, what you may notice is red, swollen, or sensitive gums, and/or bleeding when brushing or flossing your teeth. Later on, if ignored and left untreated, you may find that your gums are pulling away from your teeth, or that you have loose or separating teeth, or even pus appearing between your gums and teeth. Other signs include persistent bad breath, a change in the way your teeth fit together, or a change in the fit of partial dentures.

All of the above are signs of a progression of the bacterial infection causing periodontal disease. But perhaps the "clue" easiest to remember is that healthy gums do not bleed when teeth are brushed or flossed; so, if you notice blood, don't ignore it. Take it seriously as a symptom of gum disease.

On the other hand, you may have no symptoms at all. Gum disease is always painless. And like high blood pressure, can be symptomless in its early stages. Smokers, in particular, experience no bleeding when they brush or floss because their blood vessels are constricted by the chemical agents in cigarettes. Yet smokers are five times more likely to suffer from periodontal disease than are non-smokers and, as a result, when smokers quit smoking, they sometimes find blood on the pillow as their gums "refind" the ability to bleed, once nicotine and other chemical agents are no longer being ingested.

Of course, the best way to find out whether you have gum disease is to visit a dentist and ask for a periodontal screening and evaluation. After the age of 18, it's also wise to check with a periodontist – especially if you have, or have had, such compelling health factors as hereditary or non-hereditary heart problems, diabetes, or respiratory illness like pneumonia, bronchitis or emphysema.

But let's say your gums begin to bleed when you floss. What then? Once your dentist or periodontist

confirms the presence of a periodontal infection, you may learn that it's actually a "fortunate" time to have gum disease: because state-of-the-art therapies now exist, and more are regularly being developed.

Depending on the severity of your periodontal disease, treatment may include nonsurgical therapy such as scaling and root planing (to remove the buildup of tartar that contributes to infection, and smooth the root surfaces to allow the gums to heal and reattach to the root.) It may involve bacterial cultures to isolate the specific oral bacteria causing your specific infection. A DNA probe analysis is also utilized to qualify what specific bacteria are present. And antibiotic susceptibility testing is used to "target" your specific infection with the correct antibiotic regimen. It is important to point out that antibiotics by themselves are not enough. Treatment is necessary to gain the long term benefits of "targeted" antibiotic therapy such as nonsurgical and/or surgical periodontal therapy (which may include regenerative therapy to rebuild the lost jawbone.)

Much can be done, in other words, to restore damaged gums, bone loss and lost teeth that can result from gum disease left untreated over time. But the most important thing- if you do, indeed, have gum disease – is to start treatment before what goes on in your mouth has an adverse effect on your heart.

**Dr. Robert A. Levine** maintains a full time private practice in the Einstein Center One Building in Northeast Philadelphia focusing on surgical implant placement, cosmetic oral plastic surgery procedures and reconstructive and regenerative therapy. He is presently a Clinical Professor in Post-Graduate Periodontics and Dental Implantology at the Temple University Kornberg School of Dentistry. Dr. Levine is a Diplomate of the American Board of Periodontology and a Fellow of the College of Physicians in Philadelphia. He has lectured extensively both nationally and internationally and has been featured on several local and national television and radio shows. Dr. Levine serves on the Editorial Boards of numerous international scientific dental journals and has authored over 60 articles and 4 book chapters. He is a Fellow of the International Team for Implantology (ITI) of Basel, Switzerland and was one of 100 representatives from around the world invited to participate in both the ITI 4th Consensus Conference in Stuttgart, Germany (2008) and the 5th Consensus Conference in Bern, Switzerland (2013) to establish treatment protocols for implant dentistry worldwide. Dr. Levine is President, founder and Program Chairman of the NE Philadelphia Dental Implant and Perio-Prosthesis Study Club and the Greater Philadelphia Dental Hygiene Study dedicated to providing state-of-the-art continuing education courses to the area's dental community. One of the pioneers of the "immediate load" revolution in dental implants, Dr. Levine is one of only a handful of periodontists nationwide who have been performing this procedure since 1994. His SameDay Smile® allows patients to complete an implant surgery and leave the dental chair with beautiful, functional teeth in a single visit.