

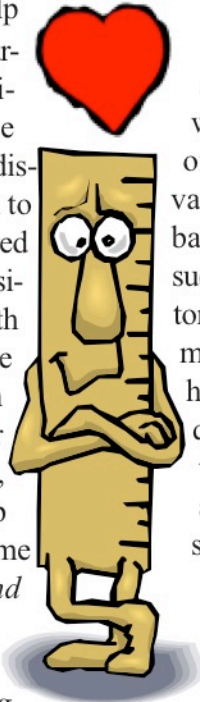


## HEART HEALTH

### Does your oral health measure up to a happy heart?

Research is racing to help health care professionals further understand how periodontal disease may be linked to cardiovascular disease. The pressure is on to get a pulse on how improved periodontal health may positively impact patients with cardiovascular disease, the leading cause of death in the United States. Is your heart thumping yet? Relax, take a deep breath, size up this information and become the ruler of your oral *and* overall health.

You're probably aware that smoking, being overweight and having high cholesterol or high blood pressure levels can thwart a healthy body by putting you at increased risk for heart disease. But, you may not know that healthy gums play a vital role in maintaining a healthy body, too. For a long time, we've known that periodontal disease, a bacterial infection, may



contribute to infective endocarditis - a possibly fatal condition in which the interior lining of the heart and heart valves inflame due to bacterial buildup. As such, patients with a history of rheumatic fever, mitral valve prolapse or heart murmur often require antibiotics prior to dental procedures as a protective measure.

Today, researchers suspect that periodontal diseases may be linked to far more than infective endocarditis, including the more common forms of heart disease that cause heart attack and stroke. Seem like a massive stretch? Well, normal tasks such as chewing or brushing can injure gum tissue and allow bacterial toxins to enter the bloodstream. Scientists now believe that these bacterial byproducts di-

rectly or indirectly cause an inflammation of the blood vessel wall, which results in blockage of an artery. This may be how your periodontal disease could lead to a heart attack.

Don't let this information flow on in "vein," because you or someone you know may be more at risk than you think. . . Patients with heart disease are clogging up hospitals, with more than 60 million Americans (one in four) having some form of the disease and nearly \$300 billion spent annually on health care and lost productivity. These statistics coupled with the fact that one in three U.S. adults aged 30 to 54 have some form of periodontal disease, and a startling 50 percent of adults aged 55 to 90, build up to a potentially big problem.

See a periodontist for a periodontal evaluation, and begin taking care of your oral health today. You'll be one beat closer to a happy heart and a healthy body!♥

### Medication That Makes Your Heart Happy Could Make Your Smile Sad

If you have been diagnosed with heart disease or high blood pressure, your physician may have prescribed a number of different medications, some of which may affect your periodontal health or put you at risk for periodontal disease. Some commonly prescribed medications can cause dry mouth, increased plaque

or enlarged gum tissue. These conditions frequently promote bacterial infections under the gum line, causing bleeding gums and bad breath. Please discuss any medications you are taking with your periodontist to

find out what effects, if any, they are having on your periodontal health. Your periodontist will work with you and your physician to minimize negative effects. Oftentimes just good oral hygiene and more frequent dental care is all you need to keep you smiling!♥

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For more information visit [www.perio.org](http://www.perio.org)



## ORAL HEALTH

### Don't Let a Dirty Mouth Pollute Your Clean Heart

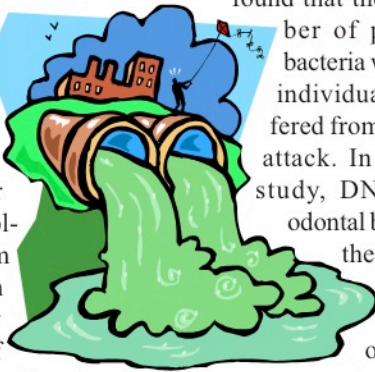
Taking care of your oral health will give you a winning smile and may also be heart healthy. Do you find this far-fetched to believe? It's true...A dirty mouth is like a factory dumping into a river. Using this analogy, the bacteria from your mouth is the sewage that can seep into your bloodstream, or in this case the river causing it to become polluted. Your bloodstream carries bacteria from the mouth and may cause the arteries of the heart to become polluted with periodontal bacteria. This can bring about inflammation of the arteries and possibly increase your risk of having a heart attack.

Periodontal researchers are racing to find out more about exactly how periodontal disease may affect heart disease. Recent issues of the *Journal of Periodontology* published findings about this topic. Following is a brief overview of these studies providing a pulse on the connection:

#### Levels of Oral Bacteria May Increase Risk for Heart Attacks

Two studies in the May 2005 is-

ssue furthered researchers' understanding about the potential link between the periodontal bacteria found in the mouth and heart disease. In one study, researchers found that the total number of periodontal bacteria was higher in individuals that suffered from a heart attack. In the second study, DNA of periodontal bacteria from the mouth was found in the plaque of the heart's arteries.



Researchers believe these findings may help confirm what they have long known - if there is a sterile pathway, such as a bloodstream near an infected area, the bacteria can travel to other parts of the body and cause harm.

Although more research needs to be done, periodontists are advising people to maintain good oral health.

#### Deep Periodontal Pockets Increase Risk for Electrocardiographic Abnormalities

In another study suggesting a relationship between periodontitis

and cardiovascular disease, researchers found that people with deep periodontal pockets had an increased risk for Electrocardiographic (ECG) abnormalities. People with severe attachment loss also had a significant risk for ECG abnormalities.

Periodontitis is a chronic inflammatory bacterial infection. Past studies reported that when periodontitis is present, it elevates levels of other inflammatory substances such as C-reactive protein (CRP), interleukin-6 and neutrophils. This suggests that when these inflammatory substances are elevated, the risk of a cardiac event is also elevated.

Additional studies are required in order to examine the degree of cardiovascular risk from periodontitis compared with other risk factors. Because problematic ECG results are a widely appreciated risk factor for cardiovascular disease, it could be valuable to know if periodontal treatment could improve ECG exams. ECG exams cause no discomfort and take only a few minutes, so it's a common screening for heart disease. ECG abnormalities are a sensitive predictors of fatal coronary heart disease.

### Your Routine Blood Test May One Day Send You to a Periodontist

In a recent study reported in the *Journal of Periodontology (JOP)*, researchers found that a routine medical blood test may also reveal indicators of periodontal diseases.

Researchers examined and measured the oral health of 7,452 men and women, and tested their blood for 37 items used in general blood tests. Some of the items tested for in the blood include cholesterol and C-reactive protein, commonly linked to heart disease; and diabetes. The results of the blood tests were compared against the oral health

scores of participants.

The study found that generally if the blood was "healthy," the oral health was also healthy, and if the blood test detected certain "red flags," serious symptoms of periodontal disease were present. Men were reported to have more serious symptoms of periodontal diseases than females. The only item from the blood test that showed a significant relationship with periodontal disease in women was CRP.

Although a specific reason could not be pinpointed, one reason could be that men and women have different endocrine situations, and periodontal diseases are influenced by endocrine conditions.

In the future when patients visit their medical doctors for routine exams and annual blood work is drawn, they may also be referred to a periodontist for a periodontal screening if the blood indicates systemic abnormalities.

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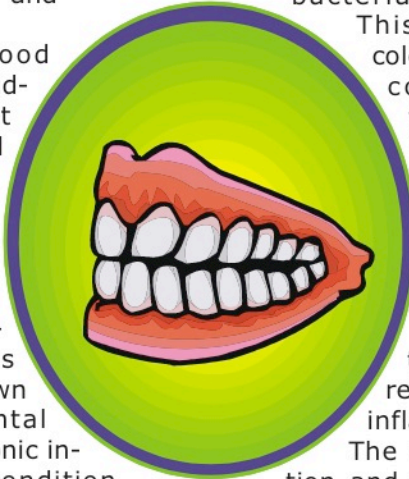


## ORAL HEALTH

# Gum Inflammation May Affect the Body

Significant progress is being made in the study and treatment of periodontal diseases, including the link between periodontal health and overall health.

This is good news since studies show that periodontal disease may represent a far more serious threat to the health of many Americans. It has long been known that periodontal disease, a chronic inflammatory condition, may cause tooth loss. Now research has identified that periodontal inflammation may be linked to heart disease, preterm births, low birthweight infants, respiratory disease and diabetes. People with inflammatory-related risk



factors will want to monitor their periodontal health throughout their lives.

Periodontal disease is a gum infection caused by bacterial plaque.

This sticky, colorless film constantly forms on the teeth. Bacteria in plaque infect the gums and release toxins that cause redness and inflammation.

The inflammation and the toxins cause destruction of the tissues that support the teeth, including bone. When this happens, the gums separate from the teeth, forming pockets that become infected.

If the plaque is not removed, it can turn into a

hard substance called calculus or tartar in less than two days. Tartar is so hard it can only be removed by an oral health professional such as a dentist or dental hygienist.

If diagnosed and treated with periodontal disease, your periodontist will work with you to determine the best treatment options to control your disease and bring you back to health. If periodontal disease is in the early stages, simple non-surgical periodontal therapy may be sufficient. If periodontitis has advanced to the point where the periodontal pockets are deep and significant amounts of bone are lost, surgical therapy may be necessary.

Once periodontitis has been controlled, patients will require ongoing periodontal maintenance procedures to sustain health.

## Forms of Periodontal Disease

There are many types of periodontal diseases. Following is an overview of the most common: **Gingivitis** is the mildest form, and causes the gums to become red, swollen and bleed easily. There is usually no discomfort at this stage.

**Chronic periodontitis** is a condition resulting in inflammation within the soft tissues surrounding the teeth causing progressive attachment and bone loss. The bone loss, gum pockets and receding gums are diagnosed through a periodontal examination and dental X-rays. Although chronic periodontitis occurs at any age, it's most common in adults.

**Aggressive periodontitis** occurs in patients who are otherwise in good health. Common features include rapid soft tissue destruction and bone destruction. There are two forms of aggressive periodontitis:

**Localized aggressive periodontitis** – most often occurs near puberty and usually involves tissue destruction around first molars and/or front teeth but may involve one or two additional teeth.

**Generalized aggressive periodontitis** – often affects people under 30 years of age, but not

always. It involves tissue destruction on at least three permanent teeth in addition to first molars and incisors. Common symptoms of periodontal disease include:

- Red, swollen or tender gums
- Bleeding while brushing or flossing
- Gums pulling away from the teeth
- Loose or separating teeth
- Pus between the gum and tooth
- Persistent bad breath
- A change in the way teeth fit together when you bite
- Change in the fit of partial dentures.

If you notice any of these symptoms, you should see a periodontist.

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