



Heart Health

Perio News

... this newsletter represents our opinion about current periodontal technologies / procedures...

Heart Health and Periodontal Disease

HEART HEALTH

The purpose of this newsletter is to educate patients to the dangers of heart disease and providing information on the heart-healthy choices they could make. **According to the US National Institutes of Health, the number one cause of death in the United States is heart disease.** This is due to hardening and plaque build-up in the arteries both in the heart (causing heart attacks) and brain (causing Alzheimer's Disease and strokes).

In Spring of 2012, a combined panel of physicians and dentists reviewed more than 120 medical and dental studies showing that patients with heart disease were more likely to also have periodontal disease. **One major study found patients with periodontal disease were 2.7 times more likely to have a heart attack and another found they were 7-8 times more likely to have a stroke** (1, 2, 3).

What Is Periodontal Disease?

Periodontal disease is an ongoing bacterial infection that progresses under your gums and "dissolves" the bone that supports your teeth. It is the leading cause of tooth loss and other oral problems. Periodontal bacteria also enters into your blood stream and has been associated with a rising incidence of a number of other diseases.

The Link: Periodontal Disease & Heart Health

The American Academy of Periodontology and the American Heart Association agree on the link between Periodontal Disease and Heart Health as illustrated below:

- Both periodontal disease and cardiovascular disease are chronic inflammatory diseases, so researchers hypothesize that inflammation may account for the association between the two. Inflammation is the body's instinctive reaction to fight off infection, guard against injury, or shield against irritation. While acute inflammation initially intends to heal the body, over time, if left untreated, it can lead to chronic inflammation.

- A large body of research suggests that periodontal disease is linked to cardiovascular disease, independent of shared risk factors including smoking and obesity.

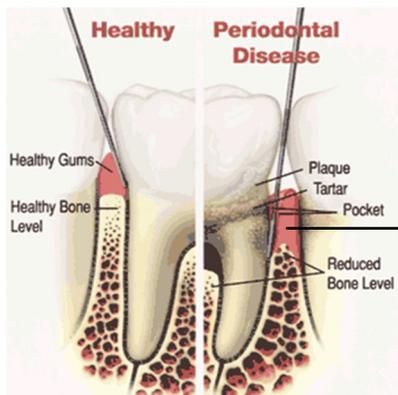
Finding the Cause Is Difficult

Until recently, minimal direct cause and effect or quantifiable evidence existed, although the association was well documented, linking periodontal disease and cardiovascular disease. Scientists now have established biologic plausibility that independently links periodontal disease to the development or progression of cardiovascular disease in patients.

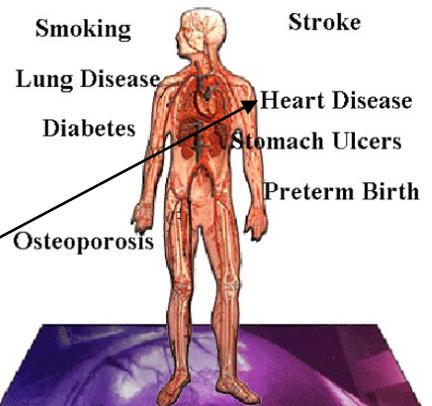
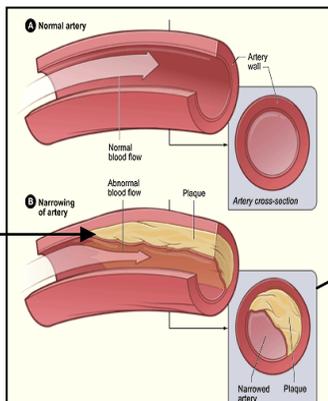
THE MAIN THEORY

Periodontal disease causes live periodontal bacteria and inflammation by-products/mediators to enter into your bloodstream and travel through-out the body. Just as these bacteria form plaque on your teeth, bacteria can encourage the formation of arterial plaque like that shown below. In fact, bacteria only found in the mouth have been located in these arterial plaques. These bacteria, in theory, have seeded the formation of the arterial plaques.

Periodontal Disease causes inflammation and allows bacteria to enter the bloodstream



The periodontal bacteria can contribute to atherosclerotic plaque development



Two New Studies - Show the Link

Recently, two new studies have more definitely demonstrated that periodontal disease can encourage arterial plaque.

First New Study

The first study was on patients who have Chronic Kidney Disease. Researchers measured the thickness and hardening of the arteries finding that patients with more advanced periodontal disease had more serious hardening of the arteries. *“Such information will be meaningful for patients because we could then tell them that periodontitis does not just influence a surrogate measure like pulse wave velocity but that it could actually increase their risk of eventually ending up on dialysis or experiencing a heart attack or stroke.”* concluded the co-author of the study (4).

Second New Study

The second study was published in the **American Heart Association** in August 2013. This was a 3-year study of 420 participants with hardening of the arteries who had periodontal disease. Some of these participants were treated and others left untreated.

Researchers measured the amount of periodontal bacteria around their teeth and found the following:

- Treated patients whose amount of periodontal bacteria **decreased** had a **slower progression** of thickness of the carotid artery.
- Those patients who were not treated had **increases** in bacteria and **greater progression of carotid artery thickening**.
- And the difference in progression amounted to a **2-3 fold lessening** of the risk of coronary events (5).

OVERALL HEALTH

Periodontal disease also has been associated with an increased risk of a large number of other medical conditions. The link involves periodontal bacteria and inflammation by-products/mediators getting into the blood stream and traveling throughout the body. Some of these medical conditions include:

Alzheimer's Disease **Cancers (Several Types)**
Diabetes **Kidney Disease**
Lung Disease **Obesity**
Osteoporosis
Pre-Term and Low Birth-weight Child Births
Heart Disease/Heart Attacks

HOW CAN THIS IMPACT YOU

If you already have **heart disease** (or any of the others listed; or have a family history) then you are already at higher risk and it is important to let your dentist know this. You also need to understand the warning signs of periodontal disease.

PERIODONTAL DISEASE: The Warning Signs

There are usually few or no symptoms of periodontal disease until it reaches an advanced stage. Some signs of periodontal disease include:

- Red, swollen or tender gums.**
- Bleeding gums when brushing or flossing.**
- Gums that feel loose and are pulling away.**
- Chronic bad breath or a bad taste.**
- Gum recession or sensitive teeth.**
- Loose or separating teeth (spaces opening up).**

YOUR BEST DEFENSE

Your best defense is the detection and treatment of periodontal disease as early as possible.

This is why we encourage you to keep your regularly scheduled appointments and cleanings with your general dentist. If he/she detects and then suggests periodontal treatment, do not delay. Periodontal disease (bone loss) can occur in spurts and should be treated as soon as worsening is detected.

Your immune system's response to the bacteria, as this is an inflammatory process, has an important role in the development of periodontal disease. If you have some of the conditions listed to the left, your body's ability to fight the infection can be diminished. Treatment of periodontal disease, as a result, is even more critical to overall good health.

Preventing periodontal disease should remain a priority. It is essential to brush and floss daily and see a dental professional for a comprehensive periodontal evaluation at least once a year.

Citations

1. www.circ.ahajournals.org/content/125/20/2520.full
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3. The American Journal of Cardiology and Journal of Periodontology Editor's Consensus: Periodontitis and Atherosclerotic Cardiovascular Disease. J Perio 2009. Pgs 1021-1032.
4. www.renalandurologynews.com/arterial-stiffness-inckd-patients-tied-to-periodontal-health/article/243107/
5. www.jaha.ahajournals.org/content/2/6/e000254.abstract?

If you have any questions or comments, please call or email drvank@trvperio.com. We appreciate any feedback and will be happy to discuss in further detail any thoughts or questions you may have.

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