



February:
Heart Disease Month

Perio News

This newsletter represents our opinion about current periodontal treatment and technologies.

Heart Health and Periodontal Disease

According to the US National Institutes of Health, the #1 cause of death in the United States is Heart Disease.

This is due to hardening of plaque build-up in the arteries both in the body and heart (causing heart attacks) and brain (causing Alzheimer's Disease and strokes).

In 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.

A major study found patients with periodontal disease were: 2.7x more likely to have a Heart Attack and 7 - 8x more likely to have a Stroke ^{(1, 2, 3).}

PERIODONTAL DISEASE IMPACT

Periodontal disease, an ongoing bacterial infection that separates your gums from the teeth, causes your immune system to respond resulting in infection/inflammation and bone loss. Bacteria and infection/inflammation by-products then enter your bloodstream causing issues in your body.

PERIODONTAL DISEASE & HEART DISEASE LINK

The **American Academy of Periodontology** and the **American Heart Association** agree that:

Periodontal disease and cardiovascular disease are chronic inflammatory diseases that cause inflammation, the body's instinctive reaction to fight off infection, guard against injury, or shield against irritation. While acute inflammation initially helps to heal the body, over time, if left untreated, it can lead to chronic long-term inflammation.

A large body of research has established that periodontal disease is linked to the development or progression of cardiovascular disease, independent of shared risk factors including smoking and obesity.

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.

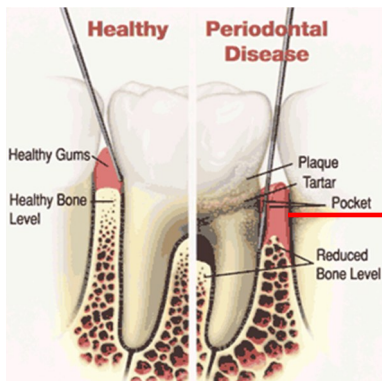
Recently, two new studies have demonstrated that periodontal disease can encourage arterial plaque.

FIRST NEW STUDY

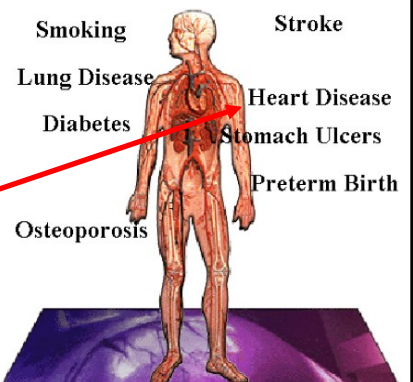
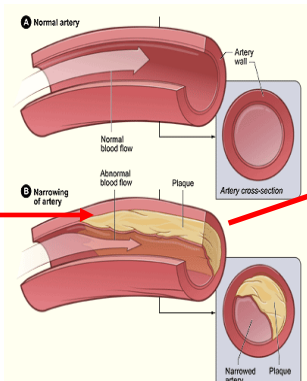
The first study was on patients with Chronic Kidney Disease. Researchers measured the thickness and hardening of the arteries finding that patients with advanced periodontal disease had more serious hardening of the arteries.

"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⁾.

Periodontal Disease causes inflammation and allows bacteria to enter the bloodstream



The periodontal bacteria can contribute to atherosclerotic plaque development



SECOND NEW STUDY

The second study published by the **American Heart Association** in August 2013 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. Some of these medical conditions include:

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

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).**
- **Usually NO pain in the early stage.**

YOUR BEST DEFENSE!

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

Do not delay.

This is why we encourage you to keep your regularly scheduled appointments and periodontal maintenance cleanings with your periodontist or general dentist.

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

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2. www.ncbi.nlm.nih.gov/pmc/articles/PMC3100856/
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?sid=42d67ab8



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Kenneth Rasenberger, D.M.D. Chris van Kesteren, D.D.S. George "Chip" I. Getz, D.D.S.
2315 West Arbors Drive, Ste 100 Charlotte, NC 28262 (704) 549-4991
www.northstateperio.com



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