

# Keeping Your Teeth and Gums Healthy: Tips for Patients with Heart Disease

You know about your heart disease, but did you know that gum (periodontal) disease can affect your heart? Common risks for heart disease include smoking, obesity, high cholesterol or high blood pressure. Now, increasing evidence suggests that periodontal disease may raise your risk for heart disease. In fact, researchers have found that people with gum disease are almost twice as likely to suffer from coronary artery disease.<sup>1</sup> Good oral health not only helps keep the mouth and gums free from infection, but may also have a positive effect on heart health.

## What is periodontal (gum) disease?

Periodontal diseases are infections of the gums, bones and fibers which attach the tooth to the bone and hold them in the jaw. The leading cause of these diseases is plaque, a sticky film that forms on teeth and is full of bacteria. If the plaque is not removed every day by brushing and flossing, it can anchor to teeth and harden into tartar (calculus) which in turn collects more plaque. The bacteria in plaque release toxins which, along with the body's own defenses against bacteria, irritate the gums, causing inflammation and infection. Smoking can make these symptoms worse, particularly for patients with chronic health conditions such as heart disease.

## Common Signs of Periodontal Disease Include:

- Red swollen gums that are tender to the touch and bleed during brushing and flossing
- Gums that have pulled away from the tooth leaving more tooth structure (the crown and/or the roots) exposed
- Milky white or yellowish plaque deposits which are usually heaviest between the teeth
- Pus between the teeth, which may also be tender and swollen in the gum area
- Loose or sensitive teeth
- A bite that feels different
- A foul, offensive odor from the mouth

In addition to gum problems, patients with heart disease who are on certain medications, may experience dry mouth due to lower saliva flow – this can lead to soreness, ulcers, infection and tooth decay. Talk with your dentist or periodontist if you are experiencing any of these symptoms.

## How could periodontal disease affect the heart?

Several theories exist to explain the link between periodontal disease and heart disease.

### Oral Bacteria

One theory is that oral bacteria can affect the heart when they enter the blood stream, attach to fatty plaques in the heart blood vessels and cause clots. Blood clots can obstruct normal blood flow, restricting the amount of nutrients and oxygen required for the heart to function properly. The long-term effect of chronic periodontitis, such as extended bacterial exposure, may be what ultimately leads to cardiovascular disease, possibly resulting in a heart attack, according to an article in the *Journal of Periodontology*, the official publication of the American Academy of Periodontology.

### Inflammation and Plaque Buildup

Another possibility is that the inflammation caused by periodontal disease increases plaque buildup, which may contribute to swelling of the arteries. Removing dental plaque may be an important step in preventing periodontitis and coronary artery disease, according to a study published in the *Journal of Periodontology*, (Zaremba, et al, 2007).

### Aggravation of Existing Heart Condition

Periodontal disease can also exacerbate existing heart conditions. Patients at risk for infective endocarditis (inflammation of the inner layer of the heart) may require antibiotics prior to dental procedures. Your general dentist or periodontist, in partnership with your primary care physician or cardiologist, will be able to determine if your heart condition requires use of antibiotics prior to dental procedures.

## How could periodontal treatment help improve the heart?

Periodontal treatment may help to restore the elasticity of arteries supplying blood to the heart. Studies have also suggested a link between periodontal disease and atherosclerosis (disease affecting arterial blood vessels) and proposed that periodontal treatment may reduce cardiovascular risk.<sup>2</sup>

## What will your dentist or periodontist (gum specialist) do for you?

Gum diseases are increasingly seen as a complication associated with heart disease. It is important for heart patients to keep their dental appointments, to be aware of the treatment options and to keep their dentist and/or periodontist informed on any changes in dental or overall health. According to the American Heart Association, as someone with heart disease, you have three responsibilities when it comes to your oral health:

1. Establish and maintain a healthy mouth. Practice good oral hygiene and visit your dentist regularly.
2. Make sure your dentist knows you have a heart problem.
3. Carefully follow your physician's and dentist's instructions when they prescribe special medications such as antibiotics.

Early stages of treatment may include scaling and root planing, where plaque and tartar are removed from the pockets around the teeth and root surfaces are smoothed. Some patients may need to have additional treatments if their disease is more advanced. Patients with existing heart disease or those who are at risk of future heart disease may need to have treatments specifically tailored to their condition.

## What should you consider when making a dental appointment?

Patients with heart disease may want to schedule their appointments at a time of day recommended by their dentist and physician, to minimize stress. Heart patients should bring their medication when visiting the dentist, and should discuss their heart disease and all medications with the dentist as these might affect the course of treatment. Most likely, the dentist and physician will work together to discuss treatment options and determine the best approach.

### Sources

American Heart Association. "Dental Care and Heart Disease," AHA, 2008.

American Academy of Periodontology. "Gum Disease Links to Heart Attack and Stroke," AAP, 2008.

American Academy of Periodontology. "A Healthy Smile May Promote a Healthy Heart," AAP, 2008.

American Academy of Periodontology. "AAP Statement on Periodontal Treatment and Improvement in Cardiovascular Health," AAP, 2007.

American Academy of Periodontology. "What Does Your Mouth Say about Your Heart?," AAP, 2007.

## What can you do to keep yourself healthy?

In addition to following the advice of your physician, dentist and periodontist, patients with heart disease can take the following steps on their own to keep their teeth and gums healthy:

- Brush after each meal and snack, using a soft bristle toothbrush.
- Use dental floss at least once a day.
- For patients who have dentures (false teeth), it is important to keep them clean
- Ask for advice on how best to keep your teeth and gums clean from your hygienist, dentist and/or periodontist.
- Have your teeth professionally cleaned on a regular basis, twice a year for most patients although if you have gum disease, more frequent cleanings might be suggested.
- Tell your dentist about any problems you might be having with your teeth and gums and have it taken care of right away.
- Let your dentist know if you have gums that are red, sore, bleeding or pulling away from your teeth.
- Tell your dentist you have heart disease.
- If you are a smoker, work with your physician to try to quit.
- Work with your physician to maintain a healthy weight and the appropriate level of exercise.

Keeping teeth and gums healthy will help to fight heart disease. Good dental habits are not only the way to a healthy mouth, but possibly also a healthy heart.

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July 2008

<sup>1</sup> Academy of Periodontology, <http://www.perio.org/consumer/mbc.heart.htm>.

<sup>2</sup> Tonetti MS, D'Aiuto F, Nibali L, Donald A, Storry C, Parkar M, Suvan J, Hingorani AD, Vallance P, Deanfield J. Treatment of Periodontitis and Endothelial Function, *N Engl J Med* 356:911, March 1, 2007.

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