

## *Your Dental Health ... News and Info*

### PERIODONTAL DISEASE AND HEART DISEASE

Over the past eight years researchers in both the medical and dental sciences have been drawing a significant association between the presence and severity of periodontal disease to cardiovascular disease and an increased risk of Myocardial infarction and or stroke. The years of research have shown not only clinically significant association, but multiple ways in which the pathogens from periodontal disease can and do affect the cardiovascular system. Currently it is believed that 75% of the adult population in the United States has some form of periodontal disease and 20% to 30% suffer from moderate to severe forms of periodontal disease. Fortunately, screening for periodontal disease has become part of the standard of care in dentistry and early diagnosis and treatment are very effective in removing pathogens and maintaining a healthy mouth.

I have broken the processes into three main areas of pathogenesis in an attempt to simplify the known processes of periodontal disease and how its pathogens affect the cardiovascular and cerebrovascular system.

This first route of cross infection is in formation of atheromas. An atheroma is the degeneration of the walls of the arteries due to formation in them of fatty plaques and scar tissue. It has been shown that periodontal bacteria and pathogens are found in atheromas in patients with periodontal disease and is believed that the presence of the pathogens increases the severity of the atheromas and can predispose them to thrombosis. A thrombosis is a blood clot that has broken free and is floating in the blood stream. If it ends up blocking blood flow in the brain it is called a stroke and in cardiac tissue, a myocardial infarction.

The second known route is platelet aggregation. Some of the pathogens that are found in periodontal disease induce platelet activation. This activation leads to a cascade effect that in turn creates a clot. If the clot becomes detached you once again have a thrombosis and all the potential risks that lie with that thrombosis.

The third route of cross infection leads to atherosclerosis. Some periodontal pathogens exhibit the ability to invade coronary and carotid endothelium. This invasion leads to the release of mediators that create a chronic inflammatory response in these tissues. This chronic inflammatory response leads to atherosclerotic heart disease.

As we are all aware, the incidence of heart disease and stroke in the United States is one of our largest concerns. The treatment and recovery of these diseases and the damage they cause can be one of the most physically and financially taxing events in these patients lives. It has been said that a ounce of prevention is worth a pound of cure. If you have questions or concerns or would like to set up an appointment for periodontal evaluation please contact the doctors on our contacts page.



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#### *Meet Christine Fordham*



*Christine is the "smiling" face greeting you at the front desk of Center for Premier Dentistry. She has been with the practice for over five years and during that time, has helped patients with many issues - from scheduling appointments to providing answers to insurance and billing questions.*

*Christine's genuine concern for patients makes her a valuable asset to our dental team.*

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