

The Dental and Heart Disease Relationship

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The data linking dental infections to increased risk of cardiovascular disease is clear. Severe dental infections can compromise cardiac conditions.

American College of Cardiology

Up to 50% of Medicare beneficiaries have a heart disease.

There are several types that have dental significance.

Coronary Artery Disease (CAD)

The most common heart disease, affecting over 25% of Medicare beneficiaries, CAD is associated with *chronic inflammation*. Periodontal disease contributes to chronic inflammation and the related increased risk for coronary heart disease, stroke, diabetes, Alzheimer's Disease, and other dreaded problems.

Inflammation. The word describes how it appears when it happens. Consider what a finger looks like with a splinter, or how infected gums may appear --- "in flames," red and swollen. Inflammation is how our bodies attack and remove unwanted stuff, like splinters and bacteria. That's good, but only in the short term. When the "attack" persists and inflammation becomes chronic, it can be dangerous by injuring nearby healthy tissue --- think of it as collateral damage.

The ligament fibers that attach teeth to jaw bones, and even the bone itself, are damaged and destroyed by periodontal disease. And the related chronic inflammation adds to the overall inflammatory state of the body which, as noted, is associated with Coronary Artery Disease.

Heart Valve Disease / Infective Endocarditis

Bacteria responsible for periodontal disease can infect other parts of the body after getting into the bloodstream. In the heart they can infect the inner lining (endocardium), and/or the valves that help direct the flow of blood through the heart's four chambers. Risk factors for such infections include a history of endocarditis, and/or abnormal, damaged, or prosthetic heart valves.

Medicare generally does not cover routine or complex dental care. However, Medicare may pay for a dental or oral examination performed as part of a comprehensive workup, and medically necessary services to diagnose and eliminate an oral or dental infection prior to, or contemporaneously with, a covered **cardiac valve replacement, valvuloplasty procedure, or heart transplant**. The beneficiary's dental care must be coordinated between their medical doctor and a Medicare-enrolled dentist.

The Center encourages Medicare beneficiaries to learn more about this coverage at:

www.cms.gov/medicare/coverage/dental

Maintaining excellent oral hygiene in such cases is important to minimize risks. Antibiotics may also be recommended prior to certain dental procedures. A dental examination and treatment may be required before certain heart surgery, including to repair or replace heart valves.

Atrial Fibrillation

When the two upper chambers of the heart (the atria) beat irregularly and not in coordination with the lower chambers (the ventricles), there is a risk for blood clots to develop. That is dangerous because the clots can travel and create strokes or other serious problems by blocking the flow of essential blood to other organs. Drugs to prevent clotting (anticoagulants) may be prescribed to reduce the risk of such complications. Some dental procedures that can cause bleeding may need to be delayed if anticoagulant therapy requires adjustment to prevent excessive bleeding.

Congestive Heart Failure

A heart weakened by coronary artery disease or other conditions such as high blood pressure or diabetes may be unable to beat with its normal strength. That can create a build-up of fluid in the body, producing swelling in the legs and elsewhere. Diuretic drugs (water pills) may be prescribed. They can create a “dry mouth.” That side effect seems to occur more frequently in older individuals. Blood pressure drugs can also create a dry mouth. Because saliva helps prevent dental diseases, a dry mouth can have the opposite effect. Saliva substitute products available as rinses, gels, lozenges and sprays can help prevent some of the dental damage that can otherwise develop.

Angina (chest discomfort)

Angina, a symptom of Coronary Artery Disease, is caused when the inside of blood vessels bringing blood to the heart muscle is narrowed by deposits of fatty, waxy, cholesterol plaques (atherosclerosis). That reduces the amount of blood flowing to the heart muscle. Calcium channel blockers are among drugs used to treat angina. While rare, they can cause the gums to enlarge. A substitute medication should be considered if that occurs. Other angina medications can include blood pressure drugs. As noted, they can cause a dentally-harmful dry mouth.

Healthy teeth and gums can help reduce heart disease risks

Dental diseases are bacterial infections. Like any infection they will produce an inflammatory response. Chronic inflammation can be hazardous to the heart and overall health. Preventing dental disease is therefore not only helpful for the important benefits of healthy teeth, it is supportive of heart, and general, health.

Take control of your dental health with excellent daily oral hygiene. Bacteria responsible for cavities and gum disease live and multiply in dental plaque. Plaque can be removed with brushing and flossing. But when brushing and flossing continually miss certain areas the plaque remains, and the harmful bacteria thrive. Because of the potential detrimental associations between dental disease and heart disease, anyone with heart related issues should request detailed prescriptive guidance from a dentist or hygienist about thorough plaque removal. Alignment of some teeth, for example, can shelter areas from the plaque-removal action of toothbrush bristles. Adaptations can be made to improve effectiveness of oral hygiene.

The inherent dignity of every person is reflected through a healthy smile.