

## Cardiovascular Disease

Cardiovascular disease, also called heart disease, includes numerous problems, many of which are related to a process called atherosclerosis.

Atherosclerosis is a condition that develops when a substance called plaque builds up in the walls of the arteries. This buildup narrows the arteries, making it harder for blood to flow. If a blood clot forms, it can stop the blood flow, and this can cause a heart attack or stroke.

A heart attack occurs when the blood flow to a part of the heart is blocked by a blood clot. If this clot cuts off the blood flow completely, the part of the heart muscle supplied by that artery begins to die.

Each year, heart disease kills more Americans than cancer and cardiovascular disease is the number one cause of death and disability in the United States.

### How is heart disease related to your mouth?

Several theories exist to explain the link between periodontal disease and heart disease. Oral bacteria can affect the heart when it enters the blood stream, attaching to fatty plaques in the coronary arteries (heart blood vessels) and contributing to inflammation and clot formation.

Another possibility is that the inflammation caused by periodontal disease increases plaque buildup, and may contribute to swelling of the arteries. Researchers have found that people with periodontal disease are almost twice as likely to suffer from coronary artery disease.

### Oral Microbiome and Periodontal Disease

The community of microorganisms in the mouth, specifically bacteria, is called the oral microbiome. This includes commensal organisms which are those that cause no harm. A balance is maintained between the number of commensals and pathogens. When this balance is disturbed, it is known as dysbiosis.

When dysbiosis occurs, pathogens and opportunistic organisms of this state, and can cause worsening of Periodontal disease.

**Cardiovascular Diseases include** Aneurysm; Angina; Atherosclerosis; Stroke; Congestive heart failure; Coronary artery disease and Myocardial infarction (heart attack).

## Treatment Options

Unlike many other chronic medical conditions, cardiovascular disease is treatable and reversible, even after a long history of disease. Because periodontal disease can exacerbate existing heart conditions, patients at risk for infective endocarditis (inflammation of the inner lining of the heart) may require antibiotics prior to dental procedures. Your dentist and cardiologist will be able to determine if your heart condition requires use of antibiotics prior to dental procedures.

## Resources:

[www.heart.org/heartorg/caregiver](http://www.heart.org/heartorg/caregiver)

[www.periodontal.com](http://www.periodontal.com)

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