

Dental Screenings Linked to Lower Heart Disease, Stroke Risk

Going to the dentist can be stressful, frightening and painful -- but it may also help your heart.

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A variety of studies have established that inflammation and bacteria in the mouth and gums can find its way into the bloodstream, leading to thickening of the arteries and increasing the risk of a heart attack. (Getty Images)

Research presented Sunday at the American Heart Association's (AHA) annual conference in Orlando, Fla., suggests that not only do frequent dental cleanings ward off plaque and gum disease, but they can also reduce risk of heart disease and stroke.

"Periodontal, or gum health, as a risk factor for heart attacks and strokes, has been looked at several times over the past 10 years," said Dr. Thomas Gerber, an AHA spokesman and a professor of medicine and radiology at the Mayo Clinic. "Some prior studies found a relationship between gum disease and heart or other disease, whereas others didn't."

Gerber was not involved with the new research.

The exact mechanism of how gum disease may be linked to heart disease and stroke is unclear.

One thought is that poor dental hygiene leads to an overgrowth of oral bacteria. These organisms, fairly benign in the mouth, can get into the bloodstream through the gums and, once there, they can

clump on blood vessel walls and grow into plaques that clog arteries and lead to heart attacks and strokes. Moreover, because these bacteria are foreign to the body, once they infiltrate the bloodstream, blood vessels think they are being attacked and try to kill them, just as they would an infection. This results in inflammation and swelling that narrows blood vessels and prevents adequate blood flow to vital organs like the brain and heart.

The recent study was less concerned with the details of why gum disease increases risk of heart disease and stroke, but whether the risk can be reduced through frequent dental visits.

"Poor oral hygiene has been associated with increased risk of cardiovascular disease," the study's abstract acknowledged. "However, the association between preventive dentistry and cardiovascular risk reduction remained underdetermined."

Dr. Zu-Yin Chen and colleagues at Taipei Veterans General Hospital in Taiwan followed more than 100,000 patients over a seven-year period, only half of whom had ever had their teeth cleaned.

They found that the participants who had ever had their teeth cleaned had a 24 percent decreased risk of heart attack and a 13 percent lower stroke risk compared to those who had never had a dental cleaning.

Not only did any dental cleanings reduce risk of heart disease and stroke, but Chen said in the news release, "Protection from heart disease and stroke was more pronounced in participants who got tooth scaling at least once a year," meaning that the more often people had their teeth cleaned, the lower their risk of heart disease and stroke.

Although the results suggest that preventative dental care can lower risk of heart disease and stroke, the study did not account for other cardiovascular risk factors that could have contributed to the association.

"We can't lose sight of the fact that most heart attacks and strokes are related to the so-called traditional risk factors, and those are high blood pressure, high cholesterol, high blood sugar, smoking, weighing too much and not exercising enough. It remains very important to take control of those risk factors," said Gerber. "People shouldn't think that by going to the dentist more often they're going to reduce their risk of heart disease."

Dr. Daniel Meyer, the American Dental Association's (ADA) senior vice president of science and professional affairs, agreed that it is too early to make that assumption, but stressed, "Regular dental visits are important to diagnose and treat dental disease. Some conditions in the mouth may indicate disease elsewhere in the body, so by maintaining a schedule of regular dental visits, the dentist can certainly refer patients to physicians or other health care providers for evaluation for a

potential systemic disease."

Clearly, science has yet to establish a direct cause and effect between dental hygiene and health, but researchers are continuing the quest.

In fact, a second study, also presented at this week's AHA conference, suggested that the number of teeth one has is associated with risk of heart disease, stroke and heart failure.

Most people have 32 teeth, wisdom teeth included. The study, conducted by dentist and researcher Anders Holmund at the Centre for Research and Development of the County Council of Gävleborg, Sweden, found that people with only 21 teeth had a 69 percent increased risk of heart attack, and those with the fewest teeth had a 2.5 times increased risk of congestive heart failure.

The researchers also looked at the gum disease, gingivitis, and found that people with gum bleeding had a 2.1 times increased risk of stroke, while those with gum infections had more than a 50 percent increased risk of heart attack.

"These studies appear to be done well, with large patient populations and long follow-up time," said Gerber of both studies, "but more research needs to be done before someone can definitively say there is a link between dental visits and heart health."

He encouraged people to continue following the American Dental Association (ADA) guidelines, which recommend visiting the dentist at least once every six months for a professional exam and cleaning.
