

# The more oral bacteria, the higher the risk of heart attack

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Several studies have suggested there is a connection between organisms that cause gum disease, known scientifically as periodontal disease, and the development of heart disease, but few studies have tested this theory.

A study conducted at the University at Buffalo, where the [gum disease](#) /heart disease connection was uncovered, now has shown that two oral pathogens in the mouth were associated with an increased risk of having a [heart attack](#), but that the total number of germs, regardless of type, was more important to heart health.

Results of the study will be presented during a poster session at the International Association of Dental Research (IADR) General Session being held in Miami, Fla., from April 1-4.

Oelisoa M. Andriankaja, D.D.S., Ph.D., conducted the study in UB's Department of Oral Biology in the School of Dental Medicine, as a postdoctoral researcher. She currently is an adjunct professor at the University of Puerto Rico's School of Dental Medicine.

"The message here," said Andriankaja, "is that even though some specific periodontal pathogens have been found to be associated with an increased risk of [coronary heart disease](#), the total bacterial pathogenic burden is more important than the type of bacteria.

"In other words, the total number of 'bugs' is more important than one single organism," she said.

The study involved 386 men and women between the ages of 35 and 69 who had suffered a heart attack and 840 people free of heart trouble who served as controls. Samples of dental plaque, where germs adhere, were collected from 12 sites in the gums of all participants.

The samples were analyzed for the presence of the six common types of periodontal bacteria, as well as the total number of bacteria.

The patients harbored more of each type of bacteria than the controls, the analysis showed. However, only two species, known as *Tannerella Forsynthesis* and *Preventella Intermedia*, had a statistically significant association with an increased risk of heart attack.

An increase in the number of different periodontal bacteria also increased the odds of having a heart attack, results showed.

Prospective studies -- those that measure oral bacteria in participants who have had no heart problems when they enter the study, and again when a heart attack occurs in a participant -- are needed to better assess this potential association, noted Andriankaja.

Source: University at Buffalo ([news](#) : [web](#))

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