

# Levels of Bacteria in Plaque Beneath the Gum Line May Increase Risk for Heart Attacks

**Researchers Warn:** Don't Let Your Mouth Pollute Your Clean Heart

Chicago – May 19, 2005 – Researchers have found evidence that the amount of **bacteria** in subgingival plaques, the deep plaques in periodontal pockets and around the teeth, may contribute to an individual's risk of a heart attack, according to two studies appearing in the *Journal of Periodontology*. These studies further researchers' understanding that periodontal bacteria may increase the risk of heart disease.

In one study researchers looked at 150 individuals with periodontal diseases and found that the total number of periodontal **bacteria** in subgingival plaques was higher in individuals that have suffered from an acute myocardial infarction (heart attack). The second study found that the same DNA from different kinds of periodontal **bacteria** in plaque was also in the patients' heart arteries. Researchers believe that these findings may help substantiate what they have long known; if there is a sterile pathway, such as a bloodstream, near a periodontally infected area that the **bacteria** from this infected area cause inflammation in the gums that opens up pores in the surrounding blood vessels, which enables the bacteria to enter the bloodstream and travel to other parts of the body and cause great harm.

"It is like setting up a garbage dump on the edge of a river. You wouldn't be surprised if the lake downstream ended up polluted with the garbage from the dump," said **Vincent J Iacono, DMD** and president of the American Academy of Periodontology. "A patient's bloodstream acts very much like the river in this analogy, in that it carries the bacteria from the periodontal plaques, possibly "polluting" the arteries of the heart with periodontal **bacteria**, causing inflammation of the arteries which may lead to a heart attack. This potential effect of periodontal bacteria further supports the need for periodic deep cleanings to enhance overall health and wellbeing."

These studies represent two in a large body of research that investigates the possible link between periodontal disease and other systemic conditions such as heart disease. "intervention data is not available to prove a causal relationship between the two. Right now we are currently advising patients that maintaining good periodontal health can only help not hurt," said Iacono.