

# New Study Confirms Periodontal Disease Linked to Heart Disease

Data Reveals Diseased Gums Pump High Levels of Harmful Bacterial Components Into Bloodstream

Chicago-February 7, 2002 – A newly published study in the *Journal of Periodontology* confirms recent findings that people with **periodontal disease** are at a greater risk of systemic disease such as **cardiovascular disease**. Study Abstract \*

Researchers found diseased gums released significantly higher levels of bacterial pro-inflammatory components, such as endotoxins, into the bloodstream in patients with severe periodontal disease compared to healthy patients. As a result, these harmful bacterial components in the blood could travel to other organs in the body, such as the heart, and cause harm.

The study is in line with recent findings by the University of Buffalo where researchers suggest periodontal disease may cause oral bacterial components to enter the bloodstream and trigger the liver to make C-reactive proteins, which are a predictor for increased risk for cardiovascular disease.

“We found the mouth can be a major source of chronic or permanent release of toxic bacterial components in the bloodstream during normal oral function.” said Dr. E.H. Rompen, director of the study. “This could be the missing link explaining the abnormally high blood levels of some inflammatory makers or endotoxemia observed in patients with periodontal disease.”

Researchers studied 67 patients of whom 42 were diagnosed with moderate to severe periodontitis and the remaining 25 patients were healthy individuals who had never received periodontal treatment. Blood samples were taken before and after patients lightly chewing gum 50 times on each side of their jaw. Researchers found the number of patients with endotoxemia rose from six percent before chewing to 24 percent after chewing. Additionally, those with severe periodontal disease had approximately four times more harmful bacterial products in their blood than those with moderate or no periodontal disease.

“While this clinical study supports earlier findings, there is still much research to be done to understand the link between periodontal disease and systemic diseases, such as cardiovascular and different-to-control diabetes,” said **Kenneth Bueltmann, D.D.S.**, president of the American Academy of Periodontology (AAP). “This data clearly stresses the importance of regular dental checkups to ensure a healthy, disease-free mouth.”

Periodontal diseases are serious bacterial infections that destroy the attachment fibers and supporting bone that hold your teeth in your mouth. When this happens, gums separate from the teeth, forming pockets that fill with plaque and even more infection. As the disease progresses, these pockets deepen even further, more gum tissue and bone are destroyed and the teeth eventually become loose. Approximately 15 percent of adults between 21 and 50 years old and 30 percent of adults over 50 have the disease. [More about periodontal disease](#)

A **referral to a periodontitis in your area** and **free brochure samples** including one titled *Ask Your Periodontist About Periodontal Disease & Heart Disease* are available by calling 800-Floss-Em or visiting the AAP's Web site at [www.perio.org](http://www.perio.org).

The **American Academy of Periodontology** is an 8,000-member association of dental professionals specializing in the prevention, diagnosis and treatment of diseases affecting the gums and supporting structures of the teeth and in the placement and maintenance of dental implants. Periodontics is one of nine dental specialties recognized by the American Dental Association.

For more information, contact the AAP Public Affairs Department at 312/573-3243 or 312/573-3242.

\*EDITOR'S NOTE: Representatives of the media may contact the AAP Public Affairs Department to receive a copy of the study. *Systemic Release of Endotoxins Induced by Gentle Mastication: Association with Periodontitis Severity*. Abstracts of *Journal of Periodontology* articles are available to the public online.