

Public release date: 24-Mar-2008

Contact: Christopher James

christopher.james@nyu.edu

212-998-6876

[New York University](#)

NYU dental researchers find evidence of periodontal disease leading to gestational diabetes

The findings, published in the April 2008 issue of the Journal of Dental Research, underscore how important it is for expectant mothers to maintain good oral health

A study by a New York University dental research team has discovered evidence that pregnant women with periodontal (gum) disease are more likely to develop gestational diabetes mellitus than pregnant women with healthy gums.

The study, led by Dr. Ananda P. Dasanayake, a professor of epidemiology & health promotion at the NYU College of Dentistry, followed 256 women at New York's Bellevue Hospital Center through their first six months of pregnancy. Twenty-two women developed gestational diabetes. Those women had significantly higher levels of periodontal bacteria and inflammation than the other women in the study.

The findings, published in the April 2008 issue of the Journal of Dental Research, underscore how important it is for expectant mothers to maintain good oral health.

"In addition to its potential role in preterm delivery, evidence that gum disease may also contribute to gestational diabetes suggests that women should see a dentist if they plan to get pregnant, and after becoming pregnant," says Dasanayake. Treating gum disease during pregnancy has been shown to be safe and effective in improving women's oral health and minimizing potential risks.

"In the future," he added, we can expect to see more research on the link between these two conditions involving other high risk groups, such as Asian and Native American women.

Gestational diabetes is characterized by an inability to transport glucose -- the main source of fuel for the body -- to the cells during pregnancy. The condition usually disappears when the pregnancy ends, but women who have had gestational diabetes are at a greater risk of

developing the most common form of diabetes, known as Type 2 diabetes, later in life. Hispanics, Asians, and Native Americans are at the highest risk for developing gestational diabetes. Eighty percent of the women in the NYU study were Hispanic.

Inflammation associated with periodontal disease is believed to play a role in the onset of gestational diabetes, perhaps by interfering with the normal functioning of insulin, the hormone that regulates glucose metabolism.

###

Dasanayake's coinvestigators included: Ms. Nok Chhun, a junior research scientist in the NYU Department of Epidemiology & Health Promotion; Dr. Ronald G. Craig, an associate professor of basic science and craniofacial biology and of periodontology and implant dentistry; Ms. Amy Moore, a data manager and programmer in the Department of Epidemiology & Health Promotion; and Dr. Robert G. Norman, a statistician and research associate professor of epidemiology & health promotion, all of the NYU College of Dentistry. Co-investigators also included Dr. Anne Tanner, a senior scientist in the Department of Molecular Genetics at The Forsyth Institute; and Dr. M.J. Lee, an associate professor and an OB-GYN in the Department of Obstetrics, Gynecology & Reproductive Sciences at Mount Sinai School of Medicine.

The study was supported by a grant from the National Institute of Dental and Craniofacial Research (NIDCR).

Founded in 1865, New York University College of Dentistry is the third oldest and the largest dental school in the United States, educating more than 8 percent of all dentists. NYUCD has a significant global reach and provides a level of national and international diversity among its students that is unmatched by any other dental school. In 2005, the NYU Division of Nursing became a College of Nursing located within the NYU College of Dentistry.
