

Periodontal Disease and Pre-Term, Low Birthweight Births

Pregnant women are particularly prone to periodontal (gum) disease as they go through the hormonal changes associated with pregnancy, and research has found that women with periodontal disease may be at higher risk of delivering pre-term low birthweight (PLBW) infants.

Researchers have studied the relationship between infection and PLBW, particularly genitourinary tract infection (GUI), for several years. It appears GUI infection causes the levels of PGE₂ (prostaglandin), and TNF α (tumor necrosis factor), biological fluids that normally induce labor, to increase rapidly, leading to premature delivery. Scientists suspect periodontal disease, also a bacterial infection, could trigger a similar increase in PGE₂ and TNF α molecule levels, thus inducing premature labor.

The relationship between infection, especially GUI, and adverse pregnancy outcomes has been well-documented in animals; and human studies. In a recent study of periodontal infection in pregnant or postpartum women, those with periodontal disease were more likely to deliver a PLBW infant than women without periodontal disease. Medical professionals have been intrigued by these results and have urged additional research in this area.

PLBW babies, infants born before the 37th week of pregnancy, account for 5 million neonatal intensive care unit days a year, at an annual cost of more than \$5 billion. Additionally, 25 percent of PLBW births occur without a known risk factor such as tobacco use, genetics, drug and alcohol use, level of prenatal care, nutrition and urinary tract infection. The extent to which periodontal disease contributes to the unexplained risk of PLBW births is important to know, and several studies are ongoing to assess this association.



The American Academy of Periodontology

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The following information from the AAP Web site is located at: http://www.perio.org/consumer/mbc.baby.htm

Preterm Low Birth Weight Births



- Osteoporosis
- Heart Disease and Stroke
- Pregnancy Problems
- Diabetes
- Respiratory Diseases

For a long time we've known that risk factors such as smoking, alcohol use, and drug use contribute to mothers having babies that are born prematurely at a low birth weight.

Now evidence is mounting that suggests a new risk factor – periodontal disease. Pregnant women who have periodontal disease may be seven times more likely to have a baby that is born too early and too small.

More research is needed to confirm how periodontal disease may affect pregnancy outcomes. It appears that periodontal disease triggers increased levels of biological fluids that induce labor. Furthermore, data suggests that women whose periodontal condition worsens during pregnancy have an even higher risk of having a premature baby.

All infections are cause for concern among pregnant women because they pose a risk to the health of the baby. The Academy recommends that women considering pregnancy have a periodontal evaluation.

Find Out More

AAP News Releases

- Infertility Treatment Affects Oral Health
- Dental Procedure May Reduce Risk of Premature Births
- Video News Release: Reducing the Risk of Premature Births
- · Advice for Mothers-To-Be on a Healthy Delivery
- Severe Periodontal Disease Poses Additional Threat to Pregnant Diabetics
- Research Provides Further Evidence on the Importance of Good Oral Health in Pregnant Women

AAP Oral Health Articles

- Recommendations for a Healthy Pregnancy and On-Time Delivery
- Protecting Oral Health Throughout Puberty, Pregnancy, Menopause and Post-Menopause
- Find a Periodontist Near You
- · Causes and Types of Periodontal Disease
- Warning Signs of Periodontal Disease
- Treatments for Periodontal Disease

Other Resources

- Information about premature births at March of Dimes Web site
- The National Healthy Mothers, Healthy Babies Coalition
- View a free AAP brochure sample on women and periodontal disease.