

## Gum disease: Can it threaten your unborn baby's health?

Most expectant mothers would never knowingly do anything to harm their unborn baby – even when it means giving up habits like drinking alcohol and caffeine during their pregnancy. Yet many of these same mothers are walking around with a potential time bomb ticking away in their mouths – a time bomb that may account for a large share of the previously unexplainable premature births in the United States.

The culprit is gum disease, a condition that affects more than 75 percent of the adults in America. Gum disease, or gingivitis, is a bacterial infection of the gums, bone, and attachment fibers that support the teeth and hold them in the jaw. Because it is virtually painless, gum disease often goes unchecked for years.

How, you must be wondering, can such a seemingly minor, not to mention physically far-removed condition, harm fetus?

According to accumulating research, published in the Journal of Periodontology, generated by studies at the University of North Carolina and the Veterans Administration Outpatient Clinic in Boston, gum disease is not only implicated in some cases of premature birth, it is linked to heart disease and diabetes.

While the research is still preliminary, a strong circumstantial case pointing to these links has emerged. Gum disease is caused by smoldering pockets of infection that contain billions of bacteria. The North Carolina study makes the point that this bacteria and related toxins are released into the bloodstream, which in turn can reach the placenta and interfere with fetal development.

To show why, let's look at the research that recently appeared in The Journal of Periodontology. A team of periodontists and obstetrician/gynecologists conducted a study of women in the high-risk obstetrics clinic at the University of North Carolina Hospital in Chapel Hill. They examined 124 of these women for gum disease, after they'd delivered their babies. The researchers performed these periodontal exams within three days of childbirth and didn't know which of the women had given birth to a full-term infant, and which had delivered prematurely. Thus the examiners were not informed as to whether the women delivered pre-term or low-birth weight infants.

What they found – once all other risk factors were taken into account – was that women with gum disease were seven times more likely to deliver low-birth weight infants than women without periodontal problems. Dr. Steven Offenbacher and his co-workers at Chapel Hill concluded that an estimated 18% of the 250,000 premature infants (those born during or before week 36, weighing less than five and a half pounds) who are delivered annually may be directly linked to untreated gum disease during pregnancy.

What this means is that an astonishing estimate of 46,000 infants are born prematurely each year due to gum disease in the mother. Gingivitis may also be the "infection of unknown origin" that, OB/GYN researchers have concluded, accounts for a large number of unexplained pre-term births. (As a side note, there is a fairly common phenomenon known as pregnancy gingivitis, that is, gum disease that occurs with the advent of pregnancy.)

Periodontal disease, as innocuous as it may seem, actually releases bacteria and toxins into the blood- stream, which in turn can reach the placenta and cause premature labor.

The same low grade infection can also impair a diabetic's ability to process and/or utilize insulin, and has also been linked to increased incidents of clogged arteries and heart disease.

Yet despite its serious and far-reaching effects, gum disease is surprisingly simple to both prevent and treat.

Pregnant women, as well as those contemplating pregnancy, should get a careful periodontal evaluation and have any clinical problems treated prior to delivery – before becoming pregnant is even better. Also, inform your physician and obstetrician/ gynecologist about the Chapel Hill study. Make sure they understand the strong likelihood of gum disease resulting in a premature delivery, and a baby who is less healthy than he/she would otherwise have been. Be aware, too, of the cost of having a premature baby. According to the National Center for Health Statistics, neonatal hospital costs account for a \$5 billion expenditure each year. But there are other costs, as well. Preterm deliveries can result in cerebral palsy, epilepsy, lung problems, and learning disabilities – all of which tax families emotionally, psychologically and financially, and have profound long-term consequences for society as a whole. The sad fact is that many of these tragic outcomes may be avoided if pregnant women and their physicians are informed.

For diabetics and people with a history of heart disease, the onset of periodontal disease can compromise the clinical treatment and maintenance plan created for them by their doctors. These individuals should have a thorough periodontal check-up, and treat any problems immediately. When caught in its early stages, gum disease can be arrested with nonsurgical therapy, which involves scaling and root planing, followed by quarterly checkups with dental cleanings.

Finally, the importance of brushing and regular flossing cannot be underestimated. As this important research indicates, a healthy mouth can have long-term and far-reaching affects – on both an individual's long-term health, and in the case of a pregnant mother, the health of her baby.