



# Diabetes

# & Dentistry YOU

What You Should Know

## About Oral Health, Pregnancy and Diabetes

Diabetes among pregnant women is on the rise. In the U.S. alone, 4 out of every 100 pregnant women are diagnosed with diabetes during pregnancy.

While the precise cause of gestational diabetes has not yet been pinpointed, physicians and the American Diabetes Association mostly agree it may have its roots in the hormonal changes that pregnant women go through – especially during the second and third trimesters.

What is the impact on the pregnant woman?

For many pregnant women, gestational diabetes is only vaguely understood. Certainly, we know it's not good and that it may trigger toxemia. But the truth is the impact of diabetes during pregnancy can be devastating.

Here are the facts. According to research for those women who develop gestational diabetes,

as many as 9% develop type 2 diabetes later in life. They may also have to undergo C-section birth, when diabetes causes macrosomia, a condition that adds an over-abundance of fat to the baby causing him to be too large pass naturally through the birth canal.

However, the child may be the more vulnerable of the two. In its *Standards of Medical Care Supplement (2007)*, the American Diabetes Association reports that "Major congenital malformations remain the leading cause of mortality and serious morbidity in infants of mothers with type 1 and type 2 diabetes."

That means infants born to mothers with diabetes are sometimes born with birth defects, or born pre-term and dangerously, morbidly under weight. Or, as mentioned earlier, they may be too large to withstand natural birth. The result of these complications for

Some researchers believe bacteria that cause inflammation in the gums may also trigger the immune system to produce inflammation in the cervix and uterus. Such inflammation may cause premature labor.

the child may be lifelong respiratory problems, shoulder dysplasia, childhood obesity and a predisposition for diabetes him or herself and even death (in some cases).

In response to pregnancy diabetes, ob/gyns often prescribe a strict diet and exercise to help the patient keep the disease under control. And this helps to a large degree. However, there may be an additional, highly-treatable factor that contributes to

### Did you know?

According to the American Diabetes Association, treatment for gestational diabetes helps lower the risk of a cesarean section birth that very large babies (especially those with macrosomia) may require.

gestational diabetes they may not have considered.

Recent research has found links between gum disease (also called periodontal disease) and gestational diabetes. According to a study from Tulane University in New Orleans (2006), nearly one out of two women with gestational diabetes also has periodontal disease. In contrast, just over one in 10 pregnant women without gestational diabetes was found to have periodontal disease.

Very probably triggered by the same hormonal imbalances as diabetes itself, periodontal disease (and the infection associated with it) can create inflammation throughout the body. This inflammation may be the tipping point to trigger diabetes or it may simply create a perfect environment, where the diabetes can flourish –

while the health of the child and the mother deteriorate.

What's more, four different research studies, performed between 1963 and 2006, indicate that pregnancy-induced gingivitis is very, very common. Reports range from a low of 35% to a high of 100%, depending on the study.

And when the patient does not receive the rigorous oral care needed during the second and third trimesters to combat gingival infection, the slight infection can turn to advanced periodontal infection. That advanced infection, in turn, may trigger systemic inflammation and onset of gestational diabetes. Or it may make blood glucose impossible to manage, as the body struggle to fight off the growing inflammation.

While the precise relationship

between periodontal disease and gestational diabetes is not completely understood, — studies show that blood glucose and other metabolic indicators of diabetes often normalize following treatment for periodontal disease.

### In Sum

The precise link between periodontal disease and development of gestational diabetes is not fully understood. However, research suggests that when periodontitis does exist, it may increase risk factors for diabetes for both mother and child.

Whether you have gestational diabetes or you are diabetic and considering having a child, you may reduce the risk associated with pregnancy and diabetes by getting a periodontal screening as part of your prenatal care.



**By participating in a 12-month program that consists of rigorous oral care on the patient's part, coupled with 2 - 4 visits to a *DentistryForDiabetics* dentist, you will be maximizing your body's ability to control glucose levels.**

## Preventive Oral Care Program For the Pregnant Woman

**Visit 1:** As part of your pre-pregnancy program, this visit will consist of check up and treatments to address infection, inflammation or dental caries — to get you primed for a healthy pregnancy.

**Visit 2:** The 2nd dental visit should take place within two months after learning you are pregnant. This visit will again test and treat signs of periodontal disease or dental caries – both of which can be passed to the baby.

**Visit 3:** This visit should take place late in the 2nd trimester to provide a final check up and thorough treatment to ensure optimum health for both mother and child during the final trimester of pregnancy.

**Visit 4:** Your final visit should take place within 8 weeks after birth. During those first weeks, lack of sleep and general recovery can take a toll on your oral health routine. Your dentist will treat any new issues, and discuss changes in oral health and overall health.