

Advise Patients to See Dentist Prior to Pregnancy

BY BETSY BATES
Los Angeles Bureau

UNIVERSAL CITY, CALIF. — Routine health care of women of childbearing potential should include a recommendation for a full periodontal examination, and pregnant patients should be monitored for signs of periodontal disease, Todd Hartsfield, D.D.S., recommended.

Evidence compiled from many studies suggests that maternal periodontal disease may be responsible for 18% of preterm, low-birth-weight deliveries, he said at a meeting of the Obstetrical and Gynecological Assembly of Southern California.

Moreover, research suggests that in patients with periodonti-

tis during the second trimester, deep instrumental cleaning, known among dentists as scaling and root planing, may substantially lower the risk of preterm delivery.

Many of the studies detailing periodontal risk have appeared in dental journals that most physicians never see, said Dr. Hartsfield, director of the Dental Clinical and Prevention Support Center of the Inter Tribal Council of Arizona in Phoenix.

"I'd like to see more interplay between our professions," Dr. Hartsfield said during a special lecture at the meeting.

"The dentist and dental hygienist should be a part of the health team that is involved in caring for expectant mothers."

He recommended several patient brochures offered by the American Dental Association, including "Women and Gum Disease," "What is Scaling and Root Planing?" and "Gum Disease: The Warning Signs."

Pregnancy gingivitis is likely to be noticed by patients and seen by physicians as red, puffy gums that bleed easily. At this stage, intensified oral care can reverse the process, so patients should be instructed to brush, floss, and rinse frequently, and to see a dentist regularly throughout pregnancy.

Periodontitis represents more serious disease, but is often painless and may go

unnoticed by pregnant women and their physicians. Gums may not bleed or visibly recede. It occurs when soft plaque in the sulcus hardens into calculus that adheres firmly to the tooth, like barnacles on a ship, said Dr. Hartsfield.

At this point, no amount of brushing or flossing by the patient will reverse the process. But bacterial toxins have begun damaging tissue and may form elongated, infection-filled pockets that may extend up to 8 mm below the gum line. At its peak, periodontitis may cause a grapefruit-sized oral infection.

"What's bad for the mouth is bad for the body," he explained. "Infections in the mouth spread through the body, causing infection at distant sites."

Toxins stimulate the release of cytokines, including tumor necrosis factor- α , interleukin-1, and interleukin-4. This cytokine response may induce overproduction of the enzyme collagenase, which breaks down proteins, including the connective tissue that holds teeth in place.

The first sign of trouble may be a loosening or movement of the teeth.

Physicians can be alert to the possibility of pregnancy periodontitis by examining patients for signs of calculus and asking whether they have a family history of the disease. In up to 30% of cases, genetics may play a role.

Periodontitis has been linked to an increased risk for bacteremia, infective endocarditis, prosthetic device infection, heart attack, stroke, lung infections, and the control of blood sugar.



COURTESY DR. MARJORIE JEFFCOAT

Periodontitis may cause 18% of preterm, low-birth-weight deliveries; treatment in the second trimester may lower that risk.

Of most interest to physicians, however, may be the connection between gum disease and preterm birth; the connection may be due to periodontal toxins crossing the placenta, the fetus mounting an inflammatory response, or both.

Animal evidence of the periodontal disease preterm birth link first surfaced in the late 1980s, and subsequent human studies followed:

► One early study found pregnant women with periodontal disease were 7-8 times more likely to have a premature low-birth-weight (PLBW) baby than women who did not have periodontal disease (J. Periodontol. 1996;67[suppl. 10]:1103-13).

► It was found that prostaglandin E₂ was significantly higher in gingival sulcus fluid in 48 mothers of PLBW infants than in controls (Ann. Periodontol. 1998;3:233-50).

► Poor periodontal health was determined to be an independent risk factor for PLBW in a

case-control study of 55 pairs of women (Ann. Periodontol. 1998;3:206-12).

► Systemic distribution of maternal periodontal infection was confirmed (Ann. Periodontol. 2001;6:175-82).

► Research linked maternal periodontal disease to an increased risk for preeclampsia (Obstet. Gynecol. 2003;101:227-31).

► Studies in Chile and the United States demonstrated a reduction in the incidence of PLBW among women with periodontitis who underwent scaling and root planing during pregnancy.

► A study found that periodontitis and elevated amniotic fluid cytokine levels at 15-20 weeks' gestation served as markers of risk for preterm birth in high-risk pregnancies (J. Clin. Periodontol. 2005;32:45-52).

One review article that highlighted previous research concluded that periodontal disease may account for up to 18% of preterm births (Obstet. Gynecol. 2003;101:227-31). ■

What to Ask Patients Thinking Of Pregnancy

1. When was the last time you had your teeth cleaned?
2. Are your gums red and puffy?
3. Do your gums bleed when you brush and floss?
4. Are any of your teeth loose? Have you noticed any new spaces?
5. Have you noticed a change in your bite?
6. Have you noticed a bad taste in your mouth?
7. Do you have bad breath or been told you have bad breath?
8. Do you have any relatives who have had gum disease?

Source: Dr. Hartsfield

Glyburide Appears Worth a Try: Treatment Failure Does No Harm

BY TIMOTHY F. KIRN
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RENO, NEV. — Glyburide may successfully control gestational diabetes in all but about 20% of patients, and a failed trial of glyburide appears to cause no long-term harm, Meredith Rochon, M.D., of the department of obstetrics, gynecology, and reproductive science at Mount Sinai School of Medicine, New York, and colleagues reported.

Glyburide treatment has been shown to be effective and safe for gestational diabetes.

The investigators reviewed the records of all patients with class A2 gestational diabetes treated with glyburide at a diabetes clinic over a period of 2 years to ensure that there were no adverse effects when the treatment failed.

The study found no reason to avoid using glyburide instead of insulin as first-line therapy, the researchers wrote in a poster

presented at the annual meeting of the Society for Maternal-Fetal Medicine.

Of 83 patients identified, 18 (22%) were patients who underwent a trial of glyburide but failed to reach the target of fasting and postprandial-glucose levels of 60-90 mg/dL and 120 mg/dL, respectively, even when treated with a dose of 20 mg daily. Consequently, those patients were switched to insulin.

Despite their initial lack of blood glucose control, the pregnancy outcomes in the patients who failed treatment—including birth weight, mode of delivery, and incidence of macrosomia—were no different from those who were successfully managed on glyburide.

The sole difference in outcome was in the patients successfully treated with glyburide. Those patients had more neonates who required admission to the neonatal intensive care unit (NICU) than did the women who had been switched to insulin

(35% vs. 11%). The most common reason for the admission was hypoglycemia (10 of 23 admissions).

In an interview, Dr. Rochon said the finding was a surprise and something of a mystery, since glyburide does not cross the placenta, and previous studies have not noted this potential association.

The hypoglycemia was not considered by the investigators to be a serious adverse effect because it was transient in all cases.

However, if it proves to be true that glyburide treatment does produce a higher rate of hypoglycemic neonates who need NICU admission, it may have significant cost implications, Dr. Rochon said. ■

Pregnancy Outcomes Not Compromised by Glyburide Treatment

	Success (n = 65)	Failure (n = 18)
Mean gestational age at delivery	38.3 weeks	37.9 weeks
Cesarean section	37%	39%
Mean birth weight	3,404 g	3,410 g
Macrosomia	14%	12%
5-minute Apgar <7	0%	0%
Admission to NICU	35%	11%

Source: Dr. Rochon