

Oral Health during Pregnancy

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Abstract

Pregnant women are confronted with unique challenges to oral care. Although there is confusion in the guidelines and treatment for this vulnerable population, evidence states that most dental care is indeed safe and recommended for better health. Additionally, recent meta-analyses provide evidence that there is no association between periodontal disease and preterm or low birth-weight. This fact sheet aims to provide recommendations for both women and professionals in oral care.

Background

Pregnancy causes physiological changes to a woman's body that makes it a special circumstance for oral care. Proper oral care is extremely important for not only the pregnant woman, but also the developing fetus, and this also marks an important period where a woman is more susceptible to learning positive health behaviors for themselves and their future child. Therefore, it is important for health professionals to understand the special needs of pregnant women and their fetus and encourage them to obtain appropriate and safe dental care from trained dentists. [1]



Physiologic Changes during Pregnancy [1]

Many changes occur to women's bodies during pregnancy. The following examples are just a few considerations that relate to dental health for pregnant women in particular: Respiratory alterations, nausea and vomiting in 2 out of 3 women, increased susceptibility to drugs and other pharmaceuticals, increased capillary permeability in gums which predispose women to gingivitis, and increased appetite and hunger.

Ultimately, these physiological changes make pregnant women more susceptible to dental conditions and often exacerbate existing conditions

Pregnant women become more susceptible to dental health issues, especially if they need dental care prior to pregnancy. Therefore, taking care of dental health before becoming pregnant is very important. The following are examples of conditions that affect pregnant women: Pregnancy gingivitis, gingival hyperplasia, pyrogenic granuloma, periodontal disease.

Epidemiology & Barriers to Dental Care

In Sydney, Australia, in a cohort of 241 women, 59% reported dental problems during pregnancy and only 31% saw a dentist. Only 10% were given instructions by primary care professionals to get oral health care, whereas over half of women did not know dental care was important during pregnancy. [9]

In Sydney, nearly 2 out of 3 women have dental issues during pregnancy

In California in a cohort of 21,732 women, 65% of women did not see a dentist during pregnancy even though 52% of women reported dental health issues prenatally, such as toothaches, bleeding gums, or cavities.

In California, 2 in 3 women did not receive dental care during pregnancy

Of the women who reported dental health issues, 62% of those women did not receive care. Susceptibility includes pregnant women who have lower income, no college education, no insurance, were ethnic minorities, spoke a language other than English, and had no usual source of medical care. The primary reason for not seeking dental care stated by 38% of participants was the lack of knowledge that they needed dental care, and 21% of women stated they had financial barriers to dental care. [7, 9]



Lack of Knowledge

- 1 out of 5 African American and Latina women did not receive dental care because they believed it was not safe.
- 14% of African American women were told by a health professional not to have dental care until after pregnancy.
- 40% of college-educated women mentioned a lack of perceived awareness for dental care [7,9].

Financial barriers

- Some women are only eligible for Medi-Cal or other health insurances during pregnancy which makes it a good opportunity to receive dental care [7,9]; however, many do not this option.

What Can Women Do?

1. Continue brushing, flossing, and using mouthwash [10].
2. Rinse mouth with water after vomiting to reduce acidity.
3. Eat a healthy diet and avoid sugary foods except at meals to prevent the growth of excess bacteria flora.
4. Calcium and vitamin-D are not necessary for tooth health during pregnancy, but are recommended because fetuses take calcium from the bones, and not from the teeth.
5. Avoid transferring saliva which may transfer caries-causing bacteria to children's mouths and can cause early childhood caries (ECC). [2,5,6]
6. Speak with a healthcare or dental professional.



Lack of prenatal oral care can cause tooth decay in infants and young children by both bacteria transmission as well as teaching poor oral health habits [5].

Dental Care Promotion

Promotion of dental care by prenatal health professionals and dentists is highly encouraged in addition to policies to alleviate financial barriers for dental care [2,6]. Professionals should receive training to care for pregnant women in order to counter many of the myths and fears with this vulnerable population.

Myth

Performing any dental procedures during pregnancy are unsafe due to the harmful effects on the fetus.

There will be litigation against the dentist if there is any adverse outcome on the fetus

Dental care should not be advised because it is either not important or too dangerous for the woman and her future child.

Fact

Prenatal and dental professionals should be made aware that most dental work during pregnancy is safe based on evidence [6].

Dental procedures are safe. The benefits of dental care outweigh the extremely low fetal risks [6].

Oral health assessment should be part of a comprehensive prenatal care for pregnant women and women of child-giving age [2,6].



Dental Professional Treatment

It is important for women to get treatment for their teeth and overall, the benefits outweigh the risks. Large randomized clinical trials suggest safety of most dental procedures [6]. Regardless of the safety, certain precautions should be taken for pregnant women.

Dental treatments during pregnancy are considered completely safe for most procedures.

Treatment Instructions by Trimester

Any urgent dental treatment can be done during any time of pregnancy with relative safety. Even so, most other routine treatments are generally avoided during the 1st trimester during fetal organogenesis to avoid harm to the fetus; however, no evidence supports this claim to avoid the 1st trimester [2]. The ideal period for dental treatment is the beginning of the 2nd trimester at 14-20 weeks because there is no risk for teratogenesis, nausea and vomiting have decreased, and the uterus has not grown enough to cause discomfort.



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During this period until birth, precaution needs to be taken to ensure proper positioning on the dental chair. The uterus can press on the inferior vena cava (vein) and hinder blood to the heart when the pregnant woman is in supine, lying position. The woman's head should always be above feet level and a folded pillow or blanket can be placed under the right hip to displace the uterus [2,6]. Other considerations include flexible time and location of dental care for pregnant women to make access convenient and less stressful [9]. Lastly, a consultation with an obstetrician for routine dental care is usually not needed [2].

Periodontal Disease

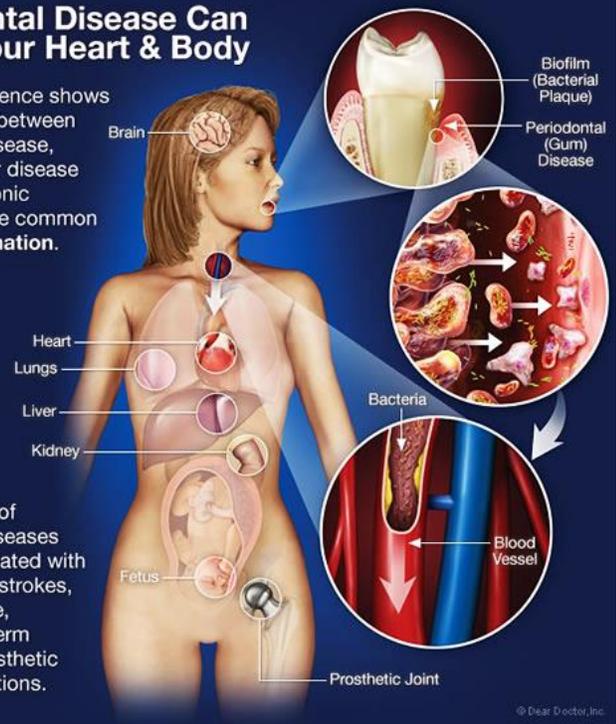
Periodontal disease and pregnancy has been studied due to its association in early observational studies with a higher risk of preterm births and low birth-weight; see Figure 1. It is also associated with inflammatory systemic diseases such as T2 Diabetes Mellitus, cancer, and cardiovascular disease and therefore may pose risks on the fetus [4].

Recent large meta-analysis suggests that there is no association between periodontal disease and preterm birth and low birth-weight [11].

A large meta-analysis of 11 randomized controlled trials with 6,558 women suggests that there is no significant association between periodontal disease and preterm birth, low birth-weight, or stillbirths/spontaneous abortions [11]. In addition, it concluded that periodontal disease treatment is shown to be completely safe and therefore should be treated during pregnancy for good oral health [3,4,11]. This provides strong evidence that contrasts earlier studies.

Periodontal Disease Can Affect Your Heart & Body

Emerging evidence shows a relationship between periodontal disease, cardiovascular disease and other chronic diseases — the common link is **inflammation**.



The presence of periodontal diseases may be associated with heart attacks, strokes, kidney disease, diabetes, preterm births and prosthetic joint complications.

Figure 1: Periodontal disease is associated in systemic inflammation which affects many parts of the body. Some suggest bacteria and inflammation can reach the fetus.

Treatment Safety of Various Procedures

Amalgam Fillings

Dental fillings are a common procedure for cavities. Dental amalgams consist of about 50% organic mercury, which may be released as mercury vapor in the mouth and cause brain damage. Leading organizations such as the ADA, FDA, and WHO consider amalgams completely safe and that the levels of mercury released are not likely to be harmful [2].



Radiography

There is skepticism about taking x-rays during pregnancy and the potential effects of radiation on the fetus. The American College of Radiology states specifically that “no single diagnostic x-ray involves a radiation dose significant enough to pose a threat to the health and normal development of the fetus” [2,8]. Any procedure that requires x-rays or radiation requires the use of a lead apron and thyroid collar to protect against radiation in addition to high-speed films to reduce exposure [2].

Pharmaceuticals

Drugs pose a risk of teratogenesis, which may affect the fetus in the 1st trimester and cause irreversible abnormalities. In general, all drugs should be the least toxic with the least side effects. For dental practitioners, antibiotics, painkillers, and anesthetics are commonly prescribed and used for treatment; however, many of these drugs should be avoided or used cautiously for pregnant women. Drugs are categorized between A-D for safety; see Table 1. A detailed listing of specific drugs is beyond the scope of this fact sheet.

Table 1 Drug Categories

| | |
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| A | Drugs tested by humans and 100% safe to use |
| B | Drugs relatively safe to use during pregnancy |
| C | Majority of drugs which should be used with caution |
| D | Drugs which should be avoided completely |



Safe

Safe

Safe (A-B)

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