Does Oral Health Affect Pregnancy?

Oral health during pregnancy can greatly impact the mother and the fetus. While the physiological changes during pregnancy can certainly cause oral health issues, pre-existing conditions can have an effect on the well-being of the mother and her unborn child¹. Dental practitioners can help their <u>patients by educating them</u> on the potential impact of pre-existing dental conditions, as well as diagnose and treat dental conditions that can develop with or during pregnancy.

Oral-B.

Pre-Existing Disease:

There are several pre-existing conditions that can negatively impact pregnancy. When examining oral health, studies support that pregnant women with pre-existing periodontal disease are at higher risk for compromised pregnancy outcomes including preterm birth, delivery of low-birth-weight babies, and development of pre-eclampsia². In fact, women with periodontitis have double the risk of pre-term birth³. Complications of pre-term birth may include developmental delays, growth reduction and hearing impairment⁴. Why does periodontitis cause this to happen? The gram-negative bacteria in the gingival biofilm leads to inflammatory markers in the bloodstream. These inflammatory markers cause an immune inflammatory response in the fetal-placental unit as well as suppression of local growth factors. This response can generate uterine contractions which may result in pre-term labor and/or low birth weight babies^{3,5}.

Oral Health Issues During Pregnancy:

During pregnancy, the placenta produces higher levels of estrogen and progesterone. These hormonal changes may lead to increased gingivitis, gingival sensitivity to irritants and pyogenic granulomas. This is partially due to progesterone increasing the vascular permeability⁶. Additionally, pregnant and/or post-partum women may neglect their own oral care to focus on the health and well-being of their baby⁶. This leads to toxic plaque remaining on the teeth and gums long term. Not surprisingly, approximately 60-75% of pregnant women have gingivitis¹. In addition, the vomiting that may occur during pregnancy

causes an acidic environment in the oral cavity. The acidity may lead to erosion and decay of the tooth structure.

Lastly, many women are hesitant to visit the dentist during pregnancy. This may be because there is a lack of perceived need or they may mistakenly believe it is unsafe to visit the dentist during pregnancy¹. However, research supports that professional dental care during pregnancy is integral to improving oral health⁶. Additionally, when appropriate pregnancy guidelines are followed, dental care is safe during pregnancy¹. If possible, a full oral examination is recommended prior to pregnancy to achieve optimum oral health and encourage proper oral care habits at home⁶.

Patient Communication:

Dental professionals must effectively communicate the risks of pre-existing disease, such as periodontitis, to their patients who are pregnant or wish to become pregnant. Recommended conversation starters may include:

- The bacteria in your mouth impacts the rest of your body and can actually lead to pre-term labor. Let's work together to treat your periodontal disease so you can have a healthier pregnancy and baby.
- 2) I know you are planning to have children soon. Did you know that the bacteria that causes your periodontal disease can negatively impact your pregnancy? With proper treatment and home care we can work together to manage your periodontal disease

For Pregnancy Gingivitis:

3) During pregnancy your hormones may cause your gums to be more susceptible to swelling and irritation. It's really important that you keep plaque under control. Try by brushing with an oscillating-rotating toothbrush such as the Oral-B[®] iO and an anti-microbial paste like Crest Gum Detoxify.

The patient and dental professional must work together to stop this cycle before it begins with diligent daily oral hygiene: brushing and interdental cleaning, getting regular oral health checkups, and properly treating periodontal disease early on. Oral hygiene in pregnant women can be improved by amplifying

their oral care routine at home with the proper oral care products. The primary factor for gingivitis in pregnant women, toxic plaque, can likely be ameliorated by improved hygiene including the use of antimicrobial pastes, like Crest Gum Detoxify, antimicrobial rinse like Crest Pro-Health Multi-Protection Clean Mint and via optimal mechanical plaque control via an electric rechargeable toothbrush with a round head, like Oral-B[®] iO. Moreover, pastes containing Stannous Fluoride such as Crest Gum Detoxify can prevent the erosion that may be caused by the acidic oral environment during pregnancy. Helping your patients to take good care of their mouth, teeth and gums <u>during pregnancy</u> can help them to have a healthy pregnancy and a healthy baby.

^{1.} Hartnett E, Haber J, Krainovich-Miller B, Bella A, Vasilyeva A, Lange Kessler J. Oral Health in Pregnancy. J Obstet Gynecol Neonatal Nurs. 2016 Jul-Aug;45(4):565-73. doi: 10.1016/j.jogn.2016.04.005. Epub 2016 Jun 6. PMID: 27281467.

^{2.} Daalderop LD, Wieland BV, Tomsin K, Reyes L, Kramer BW, Vanterpool SF. Periodontal disease and pregnancy outcomes: Overview of systematic reviews. JDR Clinical & Translational Research 2018. 3:10-27.

^{3.} Manrique-Corredor EJ, Orozco-Beltran D, Lopez-Pineda A, Quesada JA, Gil-Guillen VF, Carratala-Munuera C. Maternal periodontitis and preterm birth: Systematic review and meta-analysis. *Community Dent Oral Epidemiol* 2019; 47:243-251.

^{4.} Ward RM, Beachy JC. Neonatal complications following preterm birth. BJOG. 2003 Apr;110 Suppl 20:8-16. doi: 10.1016/s1470-0328(03)00012-0. PMID: 12763105.

Puertas A, Magan-Fernandez A, Blanc V, Revelles L, O'Valle F, Pozo E, León R, Mesa F. Association of periodontitis with preterm birth and low birth weight: a comprehensive review. J Matern Fetal Neonatal Med. 2018 Mar;31(5):597-602. doi: 10.1080/14767058.2017.1293023. Epub 2017 Feb 28. PMID: 28282773.

^{6.} Yenen Z, Ataçağ T. Oral care in pregnancy. J Turk Ger Gynecol Assoc. 2019;20(4):264-268. doi:10.4274/jtgga.galenos.2018.2018.0139