

Oral health in pregnancy could help reduce risk of pre-term birth, says research

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New research from the University of Sydney has found that treating gingivitis (gum inflammation that causes bleeding gums) during pregnancy is associated with reduced risk of preterm birth and low birth

weight in babies.

Published recently in the *Journal of Oral Health and Preventive Dentistry*, this first-of-its-kind systematic review and meta-analysis investigated whether the treatment of [gingivitis](#) in [pregnant women](#) affects pregnancy outcomes.

Twenty million infants worldwide (15.5 percent of all deliveries) are born with low birth weight (less than 2.5kg) and almost 11 percent of all live births are born premature (before 37 weeks pregnant).

While [periodontitis](#) (severe gum [infection](#) that is irreversible) has been shown to be associated with poor pregnancy outcomes, this study investigated whether common inflammation of the gums, i.e., gingivitis (which is curable and preventable) could also be related to poor pregnancy outcomes.

The study involved more than 1,000 patients from three randomized control trials, with the positive effect of good dental health shown in the pregnancy outcomes of more than 600 women.

"Due to the hormonal changes during pregnancy, pregnant women are susceptible to gingivitis, with 60 percent to 75 percent affected, so it's very common," said senior author Professor Joerg Eberhard, Chair of Lifespan Oral Health in the University of Sydney School of Dentistry and the Charles Perkins Centre.

"Oral infection can have systemic effects in the body. Gingivitis releases inflammatory markers and [bacteria](#) into the systemic blood stream, which may reach the placenta and induce poor pregnancy outcomes such as preterm delivery.

"Our review found that surprisingly even mild inflammation in the oral

cavity, which also includes the gums, can negatively affect pregnancy outcomes including babies born premature or with low birth weight, so it is essential to manage this risk factor."

Previous research has suggested that inflammatory responses during pregnancy have a negative impact on pregnancy outcomes.

"Our study shows that if gum inflammation is treated during pregnancy, the risk of a baby being born preterm is reduced by approximately 50 percent, or the birthweight increases around 100 grams in babies born with low birth weight," he said.

"In fact, the risk was halved if the mother had good oral health, which is a compelling finding.

"The good news is treatment for gingivitis is very easy to perform and is inexpensive and accessible. A dental check-up and clean every six months should prevent and treat any gum inflammation."

Lead author Quynh Anh Le from Sydney Dental School, Faculty of Medicine and Health, said, "These findings add to the new focus on the impact of good oral health on general health, particularly for pregnant women.

"Prevention of gingivitis in women during pregnancy would provide enormous health benefits.

"It's important that women and health providers around the world know that taking good care of oral hygiene is not just for the health of the mother but also for her baby.

"Regular dental checks, dental cleaning and treatment of any gum inflammation should be a vital part of pregnancy care for all women."

Professor Eberhard added, "The treatment of gingivitis in pregnant women to improve birth outcomes is a global public health issue, especially when considering the high frequency of gingivitis in pregnant women and the ease of gingivitis treatment compared to the treatment of periodontitis (gum infection) if it is left untreated.

"All pregnant women should be encouraged to have dental [checkups](#) and gingivitis treatment if necessary.

"Dental services for pregnant women should be provided free of charge to encourage mothers to get regular checks during their pregnancy to prevent any gum inflammation."

The researchers are not suggesting that [gum inflammation](#) is the single factor for preterm birth and low birth weight, but that more vigilance is needed for gum health in addition to other prenatal care.

More information: The study is available as a PDF at [www.quintessence-publishing.co ... ew-and-meta-analysis](http://www.quintessence-publishing.com/.../ew-and-meta-analysis)

Previous research: Wei Guang Bi et al, Effect of periodontal treatment in pregnancy on perinatal outcomes: a systematic review and meta-analysis, *The Journal of Maternal-Fetal & Neonatal Medicine* (2019). [DOI: 10.1080/14767058.2019.1678142](https://doi.org/10.1080/14767058.2019.1678142)

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