

#### EMBARGOED UNTIL 17 JUNE 2022 AT 12.30 CET

**EuroPerio10 congress**

**Maternal gum disease may be connected to preterm birth**

**Copenhagen, 17 June 2022**. Women with preterm births may be more likely to have gum disease compared to those with full-term births, according to research presented at EuroPerio10, the world’s leading congress in periodontology and implant dentistry organised by the European Federation of Periodontology (EFP) (1). The study also found a higher prevalence of unhealthy oral microbes in the preterm mothers.

“We observed that women with premature births more often had inflamed gums, with pockets and loss of the supporting tissue around their teeth compared to their peers with full-term pregnancies,” said study author Dr Valentin Bartha of Heidelberg University Hospital, Germany. “If confirmed, these results could have implications for preventing preterm delivery, which occurs in 10% of births and accounts for up to 75% of perinatal deaths and more than 50% of developmental disorders in children.”

Periodontitis, also called gum disease, is triggered by a microbial infection. It begins with red, bleeding and inflamed (sometimes swollen) gums, called gingivitis, which is the body’s response to an unhealthy build-up of bacteria on the teeth. Chronic inflammation can cause pockets and gaps around the teeth, destruction of the tissues and bone supporting the teeth, and eventually tooth loss.

This study compared oral inflammation and microbes in women who delivered preterm (before 37 weeks of gestation) and those with full-term births. A total of 77 women were enrolled during the first six days following childbirth. Of those, 33 had preterm deliveries and 44 had full-term births.

Information was collected on age, smoking habits, medical conditions, and medications, gestational age at delivery, and birth weight. Gum bleeding was assessed at four sites around each tooth to evaluate gingival inflammation. In addition, the researchers examined pocket depth and loss of attachment at six sites around each tooth. Dr Bartha explained: “Inflammation around the teeth causes the supporting tissues to become permanently detached from the tooth surface. When a probe can be inserted more than 3 mm along a tooth this is called a pathological pocket.”

Plaque samples were collected from the surface of teeth and in patients with probing depths more than 3 mm they were also obtained from under the gums at different locations of the mouth. The researchers then used 16S rRNA gene sequencing to identify bacterial species based on their genetic information.

#### Compared to those with full-term deliveries, women with preterm births had significantly greater attachment loss, a higher percentage of pocket depths measuring 4 mm or greater, and different populations of bacteria on and under the teeth.

#### Dr Bartha said: “We found that preterm mothers were more likely to have lost supporting tissues around the teeth, have a higher proportion of sites with deep pockets, and have unhealthy oral bacteria compared with full-term mothers. Birth weight was significantly lower for mothers with periodontitis compared to mothers with good oral health or just bleeding gums but without pathological pockets (gingivitis). Larger studies are needed to verify these findings.”

**EFP, global benchmark in periodontology**

The European Federation of Periodontology (EFP, [ww.efp.org](http://ww.efp.org)) is a non-profit organisation dedicated to promoting awareness of periodontal science and the importance of gum health. Its guiding vision is “periodontal health for a better life.”

Founded in 1991, the EFP is a federation of 37 national periodontal member societies that represents more than 16,000 periodontists, dentists, researchers, and oral-health professionals from Europe and around the world. It supports evidence-based science in periodontal and oral health, and it promotes events and campaigns aimed at both professionals and the public.

The EFP organises EuroPerio, the world’s leading congress in periodontology and implant dentistry, as well as other important professional and expert events such as Perio Master Clinic and Perio Workshop. The annual Gum Health Day on May 12, organised by the EFP and its member societies, brings key messages on gum health to millions of people across the world.

The EFP also organises workshops and outreach campaigns with its partners: projects to date have covered the relationship between periodontal disease and diabetes, cardiovascular disease, and caries, as well as women’s oral health during pregnancy.

The EFP’s *Journal of Clinical Periodontology* is the most authoritative scientific publication in this field. The federation also publishes *JCP Digest*, a monthly digest of research, and the *Perio Insight* magazine, which features experts' views and debates.

The EFP’s work in education is also highly significant, notably its accreditation programme for postgraduate education in periodontology and implant dentistry.

The EFP has no professional or commercial agenda.

**References**

1) The abstract “Periodontal status and microbiome composition in women with preterm birth – a case control study” was presented during the session “Periodontitis and systemic diseases – from pregnancy complication to systemic inflammation” which took place on 17 June at 12:30 CEST in Poster discussion area 1.

**ENDS**

**Notes for editors**

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**Disclosures:** None.

**More information:**

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