

Importance of Perinatal Oral Care and Oral Hygiene in Infants and Young Children

Perinatal oral care and pregnancy-related oral health issues



Initiating early oral health habits lays a strong foundation for lifelong oral health and overall well-being¹

Primary and permanent tooth development starts beneath the baby's gums during the gestational period and continues thereafter²



The mother's oral health during pregnancy can, therefore, significantly impact the oral health of the baby^{2,3}

Perinatal and early postnatal oral care is crucial to ensure healthy teeth in children

Perinatal oral care²⁻⁴

Pregnancy-related changes



Increase in progesterone and oestrogen



Increase in blood volume and flow



Altered immune and inflammatory responses

Oral health issues in pregnancy



Gingivitis



Periodontitis



Gingival enlargement and increased response to plaque accumulation



Pregnancy epulis/granuloma—a localised swelling of the gums



Changes in oral microbiota

Pregnancy-related oral health issues are reversible and typically do not evolve into a chronic condition

Impact of poor oral health during pregnancy²⁻⁵

Poor oral health during pregnancy may lead to periodontitis, which has been associated with:



Risk of pre-term deliveries



Chorioamniotic infections caused by the transmission of pathogens from the mother's oral cavity to the growing baby via the bloodstream



Low birth weight



Ignoring oral health problems during pregnancy can have a negative impact on the health of the mother and the baby



Pre-eclampsia—a pregnancy complication characterised by high blood pressure and signs of organ damage



The risk of untreated oral health problems significantly outweighs the risk of dental treatments undertaken during pregnancy

Dental professionals should consider individual-specific factors while devising an appropriate treatment strategy²



Medical history



Risk factors



History of smoking

Prevention and management of oral health issues during pregnancy¹⁻⁴



All preventive, diagnostic, and therapeutic procedures are safe and effective in maintaining good oral health during pregnancy

Drugs or medications related to dentistry, anaesthetic, or pain management should be prescribed in consultation with the attending gynaecologist⁶

Encourage pregnant women to adopt optimal oral hygiene practices and healthy dietary habits



Mechanical plaque removal by brushing with fluoride toothpaste containing, e.g., stannous fluoride twice a day



Interdental cleaning and flossing



Periodontal assessment



Ensure a balanced healthy diet and avoid unhealthy snacks and beverages rich in added sugars

Common oral health problems in newborns and infants^{1-3,5}



- Bohn nodules: Developmental anomalies in the oral cavity
- Dental lamina cysts: Epithelial remnants
- Fordyce granules: Yellow-white sebaceous glands
- Epstein pearls: Keratin-filled cysts

✔ **Do not require any treatment and resolve shortly after birth**



- Primary herpetic gingivostomatitis
- Oropharyngeal candidiasis



May need to be treated with suitable anti-fungal and antiviral agents



- Natal and neonatal teeth and eruption cyst



Consultation with paediatric dental professional and pain management or, in rare cases, extraction to prevent complications



Teeth emergence may be accompanied by discomfort, pain, fussiness, and refusal of food



Early childhood dental cavities:

- Decayed primary tooth surfaces in children under 6 years
- Multifactorial, sugar-driven, and microbe-mediated demineralization

Oral hygiene in infants (birth–12 months)^{2,3,5,7-9}



Exclusive breastfeeding is recommended for the first six months of life. Alternatively, if the mother does not breastfeed, formula is recommended for the baby



Advise parents to avoid added sugar in night feeds as it can predispose babies to cavities once the first tooth appears. Residual milk should be cleaned from the baby's gums and teeth after every feed to decrease the risk of dental cavities



Cleaning with a small toothbrush is recommended as soon as the baby's first tooth emerges



Advise parents/carers to ensure that a training cup is used, and discourage the use of a bottle once the baby is able to sit without support



Advise parents/carers on the safe practices, benefits, and risks of using pacifiers. Parents/carers should be encouraged to use pacifiers as per dental professional recommendations^{5,10,11}

Use only if necessary

Choose an anatomic silicone pacifier

Do not coat the pacifier with sugar, honey, or any kind of syrup

Clean and sterilise the nipple well to avoid the transmission of bacteria

Discontinue use before the age of 4 years

Prolonged use of pacifiers increase the incidence of anterior open bite

Importance of primary teeth^{5,12}

The first tooth emerges between 6–8 months and there are about 20 teeth by the age of 3



Required for chewing



Aid proper development of jaws



Aid speech development



Accentuate baby's facial features and smile



Maintain space for the emergence, positioning, and alignment of permanent teeth

For infants and young children of age 6–24 months^{1,4,7}



Advise to avoid foods and drinks with added sugars, synthetic colours and flavours, as well as limit consumption of fruit juices with added sugar




Recommend using a training cup and avoid the use of a bottle as soon as the baby sits alone



After introducing all food groups in small amounts, gradually increase their consistency and variety



Discourage thumb sucking

 Primary teeth affected by cavities can lead to an infective oral environment, which affects permanent teeth when they emerge

Prevention of early tooth decay^{1–3,12}



Recommend parents/carers to start cleaning their child's teeth as soon as they emerge



Recommend initiation of oral hygiene measures such as brushing teeth at an early age



Recommend the use of fluoride toothpaste as per age and geographic recommendations



Encourage regular visits to the dental professional

- Fluoride toothpaste with age-appropriate concentrations should be used in children as soon as the first tooth appears, for the prevention of cavities¹³



Advise parents/carers to maintain a balanced, healthy diet for the child and avoid exposure to added sugar as much as possible

- For children aged 0–2, it is recommended to use toothpaste with 1,000 ppm fluoride twice daily¹³

Key messages



Perinatal oral care significantly impacts the oral health of the baby



Initiating early oral care practices during infancy can contribute to healthy teeth and gums through childhood and beyond



Age-appropriate oral care practices should be initiated as soon as the first teeth emerge



Oral health issues can be prevented early on with healthy dietary habits and good oral hygiene

References:

- <https://www.gov.uk/government/publications/delivering-better-oral-health-an-evidence-based-toolkit-for-prevention>
- Paglia, L., & Colombo, S. (2019). Perinatal oral health: focus on the mother. *European Journal of Paediatric Dentistry*, 20(3), 209–213.
- <https://www.eapd.eu/index.php/post/pregnancy-and-oral-health>
- https://www.aapd.org/globalassets/media/policies_guidelines/bp_perinataloralhealthcare.pdf
- <https://www.eapd.eu/index.php/post/the-first-dental-problems-of-the-infants>
- Vaughn, C. J. (2012). Drugs and lactation database: LactMed. *Journal of electronic resources in medical libraries*, 9(4), 272–277.
- <https://www.eapd.eu/index.php/post/nutrition-and-tooth-decay-in-infancy>
- Van Meijeren-van Lunteren, A. W., Voortman, T., Elfrink, M. E., Wolvius, E. B., & Kragt, L. (2021). Breastfeeding and childhood dental caries: results from a socially diverse birth cohort study. *Caries Research*, 55(2), 153–161.
- World Health Organization. (2002). Global strategy on infant and young child feeding. Fifty-fifth World Health Assembly. Infant and young child nutrition. 55.
- <https://www.healthychildren.org/English/ages-stages/baby/sleep/Pages/a-parents-guide-to-safe-sleep.aspx>
- American Academy of Pediatric Dentistry. Policy on pacifiers. The Reference Manual of Pediatric Dentistry. Chicago, Ill.: American Academy of Pediatric Dentistry; 2023:77–80
- <https://www.eapd.eu/index.php/post/prevention-is-effective-when-it-starts-early>
- Toumba, K. J., Twetman, S., Splieth, C. H., Parnell, C. J., Van Loveren, C., & Lygidakis, N. A. (2019). Guidelines on the use of fluoride for caries prevention in children: an updated EAPD policy document. *European Archives of Paediatric Dentistry*, 20(6), 507–516.

