

# Perinatal and Infant Oral Health

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## Introduction

Early Childhood Caries (ECC) is a very common bacterial infection and multifactorial disease characterized by marked decay of the teeth of children 6 years of age or younger. Dental caries is the single most common chronic childhood disease, and its prevalence has recently shown a global increase in children aged 2-5 years, making this age group a priority action area for FDI.

A child's oral health begins *in utero*. Poor maternal oral health and malnutrition during pregnancy might lead to preterm birth or low birth weight, disruptions in enamel formation and a predisposition to ECC. Bacteria contributing to ECC are easily transmitted from parents/caregivers to child, and when left untreated, ECC can lead to pain and infection, as well as to difficulty in eating, speaking and even learning. These difficulties can have effects on cognitive development, school readiness and self-esteem, reducing the child's quality of life. The effects of ECC, including a dramatically increased risk of caries in the mixed and permanent dentition, often persist into adulthood.

## Statement

Children 0-3 years of age have unique oral health challenges due to their dependence on parents and caregivers. Perinatal and infant Oral healthcare are essential aspects of early intervention, facilitating behavioural changes that result in good oral health, the successful prevention of caries and the management of oral disease. There should be a concerted, integrated effort of parents, schools, health ministries and other stakeholders to decrease the intake of sugar in all its forms.

To reduce ECC, efficient perinatal and infant oral health preventive measures include:

- Educating parents and their medical and dental providers on the importance of dental care during pregnancy and on safety concerns of pregnancy, such as exposure to substances or diseases that may have a detrimental effect on fetal dentition formation.
- Educating medical, dental and other health providers on the importance of parental engagement and behavioural change in preventive dental care, which should begin with the eruption of the first tooth, or at the latest by 1 year of age.
- Encouraging the integration of medical, dental and other healthcare services, allowing providers to promote collaborative efforts with individuals, families, communities, policymakers, and governments, to offer easily accessible and consistent oral health messages and services targeting pregnant women, infants and children, particularly those from vulnerable populations, who are at increased risk for health disparities.
- Supporting interprofessional education and collaborative practice to improve the quality and accessibility of care in underserved areas in both developing and developed countries. As infants and young children are more likely to attend well baby visits and immunization programmes, than to seek preventive dental care, cross-trained medical or nursing personnel might be able to provide initial oral health assessments and guidance at an earlier age, through those early primary care visits.
- Incorporating Individual Risk Assessment, Anticipatory Guidance and Self-Management Goals as part of diagnosis and treatment planning in a 'Disease Prevention Management Model' framework.

- Implementing government surveillance systems focused specifically on dental caries in the primary dentition of infants and preschoolers (0-5 years) in all countries.

Prevention and management of ECC can be conducted in a variety of primary care settings by any qualified paediatric healthcare provider, including dentists and physicians. Providers should conduct a clinical exam, including a caries risk assessment, toothbrush prophylaxis, fluoride varnish treatment, and anticipatory guidance. Given the essential role that fluoride plays in the prevention of dental caries, anticipatory guidance should include instruction on tooth-brushing with fluoridated toothpaste, using a smear no larger than the size of a grain of rice for children younger than 3 years of age, and an amount no larger than the size of a pea for children 3-6 years of age. Children should consume water containing 0.4 to less than 1.0 ppm fluoride, to minimize the risk dental fluorosis, whilst maximizing protective effects. Anticipatory guidance should also include the establishment of a medical/dental home, and counseling on self-management goals for the parent/caregiver and the child, based on the caries risk assessment. Self-management goals should be patient-centered and tailored to individual risk factors for oral disease, including family beliefs and practices surrounding diet, bottle-feeding, brushing with fluoridated toothpaste and the importance of healthy baby teeth.

Whenever possible, providers of children's healthcare services should be specially trained in paediatric oral healthcare. The particular oral health needs of mothers, infants and children, and the special rights afforded to them by the UN Charter for Human Rights, are paramount and should be addressed. The integration of oral health into primary care, using an interprofessional and multidisciplinary approach, is the future for our profession, and is mandatory for our success. Medical and dental providers, in collaboration with government, health services and media, should do their utmost to educate patients, parents and caregivers on the tenets of children's oral health in a culturally and linguistically appropriate manner, as oral health literacy is, ultimately, a pathway to health equity.

## References

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