

FOR NON-ORAL HEALTH PROFESSIONALS

Child Oral Health

Background

Maintaining or improving the oral health of young children is a critical aspect of promoting their general health and well-being. In this fact sheet, healthcare professionals* (HCPs) will learn how to recognize oral health problems in young children aged below six and the benefits of preventive treatment for oral health outcomes.

*Disclaimer: HCPs can carry out an oral examination and provide treatment in many countries, but not all. It is the responsibility of each healthcare professional to understand their country's regulations and to undertake permitted duties only.



Early Childhood Caries (ECC)

Early Childhood Caries (ECC) is the term for early onset dental caries (decay) in children's teeth (Figure 1). American Academy of Pediatric Dentistry defined ECC as the presence of one or more decayed, missing (due to caries), or filled tooth surfaces in any primary tooth in a child aged 71 months or younger, that is under the age of six.¹ The decay may be non-cavitated (a lesion on the tooth's surface), or cavitated (having penetrated the enamel). ECC is a prevalent, aggressive dental disease that affects not only oral health but also the general health of children. Dental caries may cause children to experience discomfort, pain, infection, and functional impairment, which can negatively impact their oral health-related quality of life. Moreover, decay in the primary (baby) teeth of young children is a predictor of decay in the permanent teeth which start to erupt at around age six, increasing the risk of further oral health problems.

Why do HCPs need to recognise ECC?

- Oral health is integral to general health and well-being.
- ECC is a prevalent oral disease causing pain and infection, yet it is largely preventable
- HCPs often encounter young children before dentists do.



FIGURE A. EARLY CHILDHOOD CARIES (EC). © 2025 by Dr Chun Hung Chu

Some facts about ECC

Clinical features

1. The first clinical sign of tooth decay is a small, softened area on the tooth's enamel surface sometimes concealed between teeth or by fissures on the tooth. As the lesion develops, the decay penetrates the enamel, forming a cavity (hole) and damaging the tooth.
2. ECC usually appears in the first two years of life as white spot lesions that rapidly develop into dark cavities.
3. Severe oral implications of ECC include nerve involvement, abscess, swelling of the gums around the affected teeth, tooth loss, bad breath, and possible disturbance of the development of adult teeth.

Aetiology of ECC

1. Cavity-causing bacteria begin to colonize in the mouth at an early age.
2. The bacteria form plaque, a thin biofilm which clings to the surface of teeth.
3. Bacteria in the plaque metabolize sugar to form acids which dissolve the tooth's mineral surface.
4. The longer plaque biofilm remains on the tooth's surface and the higher the amount of sugars and fermentable carbohydrates in the diet, the greater the caries risk.
5. The amount and frequency of consumption of free sugars is the main aetiological factor.

Risk-related factors of ECC

1. ECC involves complex interactions between environmental, biological and behavioural factors. The occurrence of tooth decay is associated with an imbalance of numerous risks and protective factors.
2. Diet is an important factor in ECC development. Fermentable carbohydrates in children's diets and the regular consumption of dietary sugars, increasing as children grow, are major causative factors in the formation of tooth decay.
3. Dental plaque is a film of bacteria adhering to the surfaces of teeth and it is continuously building up (Figure 2). The presence of plaque may indicate the risk of tooth decay. This is increased among children with poor hygiene practices.
4. Enamel defects are a risk factor for tooth decay development.
5. Research has shown that socio-economic factors related to tooth decay, such as lower family household income and lower caregiver educational level, increase the likelihood of ECC.
6. Studies have also found that systemic health conditions, including cerebral palsy, Down Syndrome, and autism spectrum disorder (ASD), are associated with higher caries experience.



FIGURE B. VISIBLE DENTAL PLAQUE. © 2025 by Dr Chun Hung Chu



The role of HCPs

1. Educate caregivers: HCPs should educate caregivers so they can provide oral health education as part of the child's routine doctor visits. This can help caregivers recommend preventive measures to maintain good oral health.²
2. Encourage healthy dietary habits: Promoting a healthy diet is an essential aspect of preventing ECC. HCPs can advise caregivers to limit sugary snacks and drinks and to promote healthy eating habits, such as fruit and vegetables.
3. Support oral hygiene practices: HCPs can instruct caregivers on the importance of regular toothbrushing, flossing, and proper oral hygiene practices. It is important to note that children should be assisted with toothbrushing until they can do it effectively on their own.
4. Incorporate oral health into routine well-child visits. HCPs* should include oral health assessments as part of the child's routine doctor visits. This can help identify early signs of ECC and identify proper treatment for prevention.
5. Recommend the application of topical fluoride varnish. HCPs can apply topical fluoride varnish to children's teeth to prevent tooth decay if local health practice laws allow. This is a safe and effective preventive measure.
6. Refer to dental professionals when necessary: HCPs should refer children to dental professionals, such as when the child has severe ECC, requires restorative treatments or specialized care, or has oral health problems that cannot be addressed in a primary care setting.
7. *NB: HCPs can carry out an oral examination and provide treatment in many countries, but not all. It is the responsibility of each healthcare professional to understand their country's regulations and to undertake permitted duties only.



Oral healthcare delivery framework

Ask

1. Ask about the child's medical, dental and social history, as well as their oral hygiene practices.
2. Ask about common risk factors as well as protective factors, such as toothbrushing twice a day with a toothpaste containing the recommended level of fluoride.
3. Ask about diet.
4. Ask about availability of routine care by a dentist and professional topical fluoride application.

Look

1. Look at the child's oral cavity, and check for:
 - Dental caries, including early lesions (white spots);
 - Oral hygiene, including plaque accumulation.
2. Check for the presence of any oral diseases.

Decide

1. Determine if there are any conditions requiring immediate referral, such as ECC with pain and infection.

Act

2. Provide oral health education to the child's caregivers.
3. Provide advice to the child and the child's caregivers on the child's dietary habits, oral hygiene practices, and fluoridated toothpaste use.
4. Recommend preventive measures, such as topical fluoride varnish.
5. Refer the child for evaluation in dental or medical settings, as needed.

Document

Document the child's oral health status and any interventions provided.

This factsheet is supported by:



References

1. American Academy of Pediatric Dentistry. Policy on Early Childhood Caries (ECC): Classifications, Consequences, and Preventive Strategies. *Pediatr Dent*. 2018. 40(6): 60-62.
2. World Health Organization. WHO Expert Consultation on Public Health Intervention against Early Childhood Caries: report of a meeting, Bangkok, Thailand, 26–28 January 2016. Geneva: World Health Organization; 2017. Available from: <https://apps.who.int/iris/bitstream/handle/10665/255627/WHO-NMH-PND-171-eng.pdf> [Accessed on 14 Feb 2024].

Other Resources

1. FDI World Dental Federation. Oral Health in Comprehensive Cleft Care. Available from: Oral health in comprehensive cleft care | FDI (fdiworlddental.org) [Accessed on 10 April 2024].
2. FDI World Dental Federation. Educational module for other healthcare professionals. Available from: Educational Module for Other Healthcare Professionals | FDI (fdiworlddental.org) [Accessed on 12 March 2024].

Disclaimer:

This fact sheet offers general information and may require adaptation to suit the scope of work and regulations governing other healthcare professionals in each country.

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