



Baby teeth
are
important!

Key messages

Baby teeth are important:

- For eating (biting, chewing and grinding)
- For speech development
- To make space for the adult (permanent) teeth and guide them into position

Tooth decay causes pain, sleeping problems and may stop children from reaching a normal weight.

Rationale

Why promote the oral health of babies, toddlers and children?

The importance of general health and wellbeing in the early years of life is well documented.

'There is growing evidence that good nutrition, nurturing and responsive care-giving in these early years, combined with high quality early childhood development programs, can improve the long-term outcomes for all children's health, development, learning and wellbeing.'

– Department of Human Services, 2005

Oral health is often observed as the domain of the dentist, with the mouth being a separate part of the human body. This has contributed to other professionals believing that they are not skilled enough to promote oral health. Good oral health is fundamental to overall health and wellbeing, and early childhood is a critical time when lifetime habits are established. It makes sense to support oral health promotion in the early years as an important investment in the future health of all Victorians.

Tooth decay in children under 5 years of age is a rapid and progressive disease which can be painful and debilitating (de Silva Sanigorski et al, 2010). Tooth decay causes pain, sleep problems, eating difficulties, poor diet and can keep children from achieving a normal weight. Poor oral health can also affect speech development, communication and self-esteem (Rogers, 2011).

Of the children up to five years of age who attended public dental clinics in Victoria during 2010–2011 33 per cent experienced tooth decay and 69 per cent of this was untreated (Dental Health Services Victoria, 2011).

The Victorian Child Health and Wellbeing Survey found that for Victorian Children aged between 6 months and less than 13 years oral health outcomes include (Department of Education and Early Childhood Development, 2009):

- 18.2 per cent of children had experienced toothache. Of these children 27.7 per cent had toothache severe enough to disrupt sleeping.
- 17.5 per cent children had a filling.
- 4.7 per cent of children were reported to have had treatment in a dental hospital under general anaesthetic.
- 7.5 per cent of children have had a tooth extracted.
- Rural children were more likely to have experienced a toothache, had a filling, a tooth extraction or have received treatment in a dental hospital under anaesthesia.
- 70.0 per cent of children aged 2 to 12 years were reported to brush their teeth at least twice a day.
- Approximately one in five children (20.3 per cent) had a parent or carer who reported never assisting their child with tooth cleaning.

The previous Victorian Child Health and Wellbeing Survey in 2006 found that 71 per cent of children aged between one and five years have never been to the dentist. Furthermore, 51 per cent of parents surveyed stated that there was no reason to visit the dentist, and 30.8 per cent considered their child to be too young for a dental visit. (Department of Human Services, 2007).

Some groups experience greater levels of poor oral health. These include people on low incomes, some Aboriginal and Torres Strait Islander peoples, people living in rural or remote communities, people with a disability, and some people from culturally and linguistically diverse background, particularly refugees (Rogers, 2011).

- Young children from low socioeconomic groups experience twice the level of tooth decay as children in high socioeconomic groups. (Rogers, 2011).
- About 20 per cent of Australian 4 year old children examined in public dental clinics had 90 per cent of the tooth decay for that age group. (Rogers, 2011).
- Hospitalisation rates in Victoria for dental-related treatment for Aboriginal children aged up to four years are approximately double those for non-Aboriginal children (Department of Health, 2012).

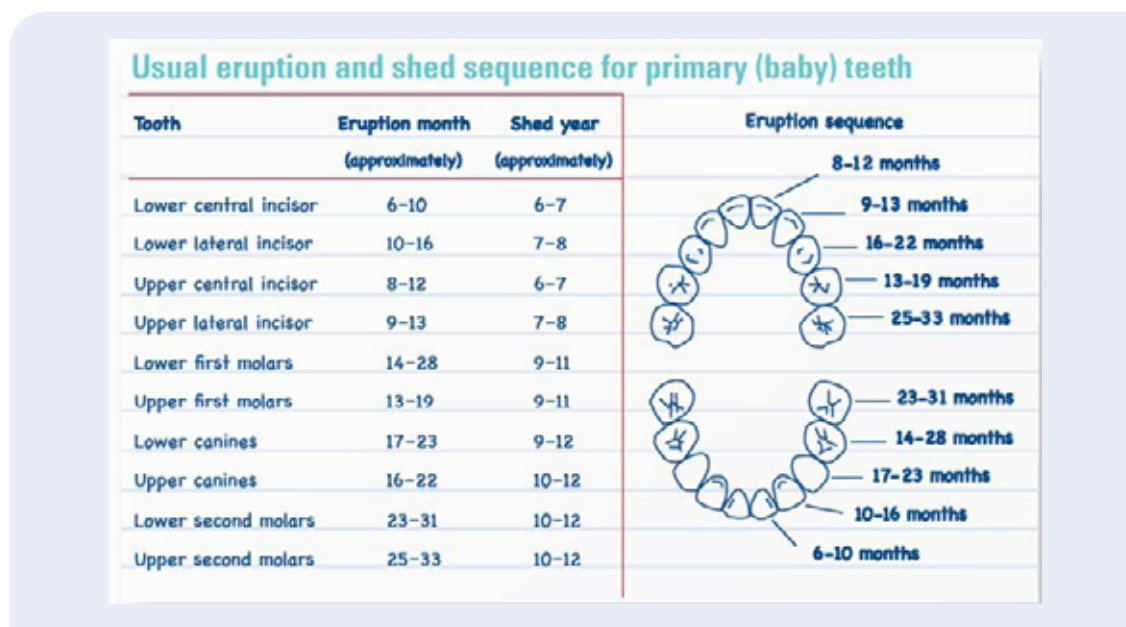
These statistics show that the importance of oral health is often not realised, or well known, until children are pre-school age. Addressing oral health right from the start is the key.

Did you know ...
the first baby tooth erupts at about 6 months of age. Teeth need to be cleaned as soon as they come through to prevent tooth decay.

Teething

Teething is the natural process of the tooth erupting (coming through). The first tooth will usually erupt at around 6 months of age. However, a very small number of babies will get their first tooth early and an even smaller number will be born with an erupted tooth. All teeth should be cleaned once they have erupted.

From the age of 6 months through to 3 years babies will have their full set of baby teeth erupt. The shedding process, when the teeth begin to fall out begins at around 6 years of age and continues through until 12 years.



Teething can cause some pain and discomfort to babies and toddlers. Signs/symptoms of teething include:

- restlessness during the day and sleeplessness at night
- irritability
- increased dribbling
- red and swollen gums which feel hard and pointed when pressed
- rubbing gums together in a grinding motion
- being fussy with food
- placing objects or fingers in the mouth.

Although teething can be painful for some babies it is important that other signs of illness are not be automatically assumed to be the result of teething. Always seek medical advice when a baby or toddler has a temperature above 37°C or diarrhoea. A rise in temperature (above 37°C) or fever is not associated with teething. It's important to remember that the six-months to three-year age range is associated with an increase in minor infections, such as colds or bouts of the flu, which can cause a fever (Morgan, 2011).

Managing teething

For temporary relief, babies can be given something to bite on such as a damp cold flannel or a teething ring. Teething rings can be stored in the fridge to keep them cool, but never in the freezer. Avoid putting anything on the teething ring (such as sugar, honey or jam).

Medications and teething

It is important to seek medical advice from a medical professional (GP, maternal and child health nurse or pharmacist) regarding pain relief for babies and young children.

What does early childhood caries look like?

Early childhood caries is a particularly severe form of dental caries (tooth decay) affecting the baby teeth of infants and young children. If you see any of the below signs, it is recommended that the family visits an oral health professional:



Figure 1 – Healthy teeth

This shows a full set of healthy teeth in a 3 – 4 year old child.

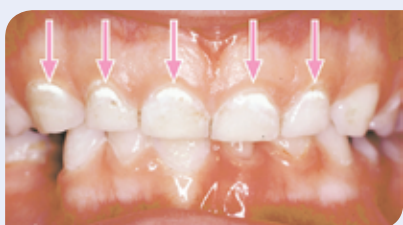


Figure 2 – Early signs of decay

The white marks on the teeth next to the gum line are very early signs of decay. This cannot be removed; however, it can be arrested through dietary changes and good teeth brushing.



Figure 3 – Progression of tooth decay

The marks on the teeth show further progressed tooth decay. This cannot be removed; however, it can be arrested through dietary changes and good teeth brushing.



Figure 4 – Advanced tooth decay

This stage shows very advanced decay which may require removal of teeth.

Tooth decay

The tooth decay process

Tooth decay begins with the interaction of two key ingredients: fermentable carbohydrates (sugar) and *Mutans streptococci* (oral bacteria). *Mutans streptococci* live and colonise in the mouth and feed off the sugar in the foods consumed; especially fermentable carbohydrates.

The bacteria stick to the teeth and multiply forming dental plaque. Within just a few minutes of eating or drinking, the bacteria begin to produce acids (this is called an acid attack). Those acids can penetrate into the hard substance of the tooth and dissolve some of the minerals (causing a loss of calcium and phosphate) creating the process of demineralisation. This acidic environment starts with the first exposure to sugary foods and last for about 20 minutes after the last exposure.

After the sugar is gone, the mineral loss can be recovered from minerals dissolved in the saliva. This is called remineralisation. Cavities (or holes) result when the rate of demineralisation exceeds the rate of remineralisation and the tooth enamel is destroyed, this process can occur over many months or years.

For tooth decay to occur it requires the presence of:

- Susceptible teeth
- Bacteria (that causes dental decay – *Mutans streptococci*)
- Diet high in refined carbohydrates
- Carbohydrates include: sucrose, fructose, glucose, lactose, maltose etc.



Baby teeth and eating

Learning to eat a wide range of healthy and nutritious foods is an important milestone for children. This begins at 6 months of age when babies are introduced to solid food and continues into the second year of life. Being able to bite food, as well as the actions of chewing and grinding, are very important for children. These actions also help to develop jaw muscles. Without good oral health this can be difficult. Children may avoid foods if there is a problem. Decayed teeth can influence what children prefer to eat as well as the amount and frequency of food consumption. This can also impact on their ability to achieve a normal healthy weight.

Baby teeth and talking

The baby teeth help children when learning to talk and being able to pronounce sounds and their first words.

Baby teeth and support of adult teeth

The baby teeth help to make spacing for the adult teeth, as well as ensuring that teeth are guided into the correct position.