

Baby teeth count too!

Participant's workbook for introducing oral health promotion in early parenting centres



Content

This document describes the generally accepted knowledge at the time of publication. It is only a guide and is a general summary of early childhood oral health knowledge. Clinical educators who conduct the *Baby teeth count too! education program* at early parenting centres are encouraged to update their knowledge on early childhood oral health through a continued partnership with the Health Promotion Unit of Dental Health Services Victoria.

Disclaimer

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Download

The *Baby Teeth Count Too! oral health education program* is available on line from the Dental Health Services website <https://www.dhsv.org.au/>



Dental Health Services Victoria
Health Promotion Unit
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Foreword

The Baby Teeth Count Too! education program has been designed to help staff of early parenting centres support families in valuing and looking after their child's oral health. The program is the result of an exciting partnership between Dental Health Services Victoria, Mercy Health O'Connell Family Centre, Tweddle Child and Family Health Service and the Queen Elizabeth Centre.

Too many young children experience tooth decay which can cause pain, sleeplessness, eating difficulties and other problems. The good news is that this is preventable. You play an important role in supporting parents who may be struggling with the challenges of parenthood. By supporting parents to nurture healthy oral health behaviours, you can help to address this important health issue.

The services provided by early parenting centres offer a unique opportunity for staff to incorporate oral health promotion as part of the daily holistic care provided to families. It's important to include oral health as early as possible because it is crucial to an infant's overall health and wellbeing, not only in childhood but also for adult life.

The Baby Teeth Count Too! education program was developed by the Health Promotion Unit of Dental Health Services Victoria in partnership with the clinical educators from the Mercy Health O'Connell Family Centre, Queen Elizabeth Centre and Tweddle Child and Family Health Service. The package is part of the Healthy Families, Healthy Smiles initiative, funded by the Victorian Department of Health.

This participant's workbook guides the in-service training process and serves as a reference resource to support your efforts in promoting better oral health for families that attend your service. We hope this education program will become a tool to build your knowledge and confidence and inspire you to include oral health in your practice. As CEOs we are committed to support you in promoting oral health as an integral part of the health and wellbeing services offered to families and their children.

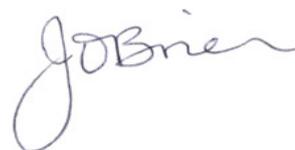
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Common terms used when talking about oral health

Term	Meaning
Ambulatory Care Sensitive Conditions (ACSC)	Conditions for which hospitalisation is considered to be avoidable through prevention and early disease management. For example, oral health conditions include a child requiring tooth extraction under general anaesthetic because of extensive decay.
Acid attack	A process that happens when bacteria living in the plaque found on teeth break down sugary and starchy foods or drinks to form acid. The acid attacks the tooth enamel (hard outer layer of each tooth) causing it to soften. Over time this can cause a cavity. Each acid attack can last 20 minutes, before the pH of our mouth returns to normal.
Baby teeth	See deciduous teeth.
Carbohydrates	Foods containing sugars and starches, providing our body with a major source of energy. Carbohydrates are broken down into acid by the bacteria in our mouth.
Decay (tooth)	Tooth decay, also called dental cavities or dental caries, is the destruction of the outer surface (enamel) of a tooth. Decay is caused by the bacteria that live in plaque. The bacteria sticks to tooth enamel and uses the sugar and starch from food particles in the mouth to produce acid which can dissolve tooth enamel.
Deciduous teeth	The first set of 20 teeth. Also known as baby, milk or primary teeth.
Dmft/DMFT score	A score used to measure the experience of tooth decay. In lower case, it refers to the number of decayed, missing and filled baby teeth. When it appears in capitals, it refers to the number of decayed, missing, filled permanent or adult teeth.
Early Childhood Caries – ECC	Also called “baby bottle caries” or “infant feeding caries”. Early Childhood Caries is the technical term that describes the presence of one or more decayed or missing upper front teeth in infants and young children.
Enamel	The hard white, outer layer of the teeth which protects the sensitive, major parts inside teeth. Decay and sensitivity can occur when enamel is stripped away through tooth erosion.
Fluoride	Fluoride is a mineral found naturally in food, water and plants. It is commonly added to water supplies and toothpaste. Fluoride makes the tooth more resistant to decay and aids in the repair of early decay.
Gingivae	Technical term for the gums. The pink tissue inside the mouth that covers the bone in which the teeth sit.
Gingivitis	Gum inflammation caused by the build-up of plaque along the gum line.
Incisor	The four front teeth in the upper and lower jaw.

Lift the lip	A simple technique that involves raising a toddler's upper lip to look for signs of tooth decay in baby teeth. This can be done by parents and/or health professionals.
Mutans streptococci	The bacteria found in the mouth that are primarily responsible for tooth decay.
Oral health	Oral health is not simply the absence of oral disease but is a state of wellbeing in which an individual can eat, speak and socialise without discomfort or embarrassment. Oral health is about the ability of individuals, groups and populations to have opportunities to make healthy oral choices promoting positive and sustainable wellbeing and contributing to general overall good health (NSW Department of Health 2006). ¹ Poor oral health has a range of consequences including pain, difficulty in eating certain foods, impaired speech, loss of self-esteem, restricting social and community participation, and impeding the ability to gain employment. Generally, a person's overall quality of life is affected (Watt 2005).
Periodontitis	Periodontitis is advanced gum disease, which can occur if infection of the gums is not treated and the infection spreads to the ligaments and bone that support teeth. Gums pull away from the teeth and form spaces (called "pockets") that become infected. If not treated, the bones, gums and tissue that support the teeth are destroyed. The teeth may eventually become loose and have to be removed.
Permanent teeth	Adult teeth that grow once baby teeth have fallen out. They generally develop between the ages of 6 and 12 years.
Remineralisation	Reversal of the demineralisation of tooth enamel, remineralisation rebuilds tooth enamel. It is a natural process that occurs by drinking fluoridated water and eating foods rich in calcium like cheese, milk, lean meats, and vegetables. Sugar-free yogurt, vegetables and homemade soup stocks flavoured with animal and fish bones contain very high amounts of the nutrients needed for remineralisation of teeth.
Root	The part of the tooth that anchors it to the bone and is normally beneath the gum.
Plaque	A sticky, colourless film of bacteria and sugars that constantly forms on our teeth. When you eat, the bacteria in plaque use the sugars found in food to produce acids that eat away at the tooth enamel. Repeated attacks cause the enamel to break down, eventually resulting in a cavity (or hole) in the tooth surface. Plaque needs to be removed every day through brushing and flossing to prevent tooth decay and gum problems.

¹ This definition is adapted from the World Health Organisation [WHO] (1984) definition of 'health' and the UK Department of Health (1994) definition of 'oral health' cited in AHMAC (2001).

Sugars affecting our teeth	<p>There are five types of sugars found in the food we eat. The bacteria in our mouth not only uses the sugars as its food source but breaks down the sugar turning it into acid that can weaken tooth enamel and cause decay.</p> <ul style="list-style-type: none"> • Sucrose - a sugar that is found in most lollies and used in cooking cakes and biscuits. • Fructose - known as fruit sugar, fructose is found in fruits, fruit juice, honey and syrups. Fructose is concentrated into a substance called "high fructose corn syrup" which is a commonly used sweetener because it is cheap and very sweet. This concentrate is often found in fruit drinks and soft drinks and is very harmful to our teeth. • Glucose - the main energy source of our body, all the types of sugars we eat are broken down by our body into glucose. • Lactose - the sugar found in milk and dairy products. • Maltose - the sugar found in grains. It is present in foods such as bread, rice, pasta and cereal as well as drinks such as beer.
Tooth erosion	<p>Many of the foods and drinks we consume today contain acid, particularly fruit juice, fizzy, diet and sports or energy drinks, wines and some fruits. The acid begins to dissolve the enamel surface of teeth. Normally teeth can repair themselves using the minerals contained in saliva. But if teeth are in frequent contact with these drinks during the day, they cannot repair themselves and the hard tooth surface (the enamel) becomes thinner.</p>
White spot	<p>A chalky or opaque patch on the tooth surface resulting from early loss of minerals from the tooth enamel. White spots can be precursors to decay or cavities if proper oral hygiene and diet are not followed.</p>
Wisdom teeth	<p>Wisdom teeth are the third and last permanent molar. They usually erupt around the late teens or early 20s. There are normally two wisdom teeth in the upper jaw and two in the lower jaw.</p>
Xylitol chewing gum	<p>A low-calorie sugar substitute used in certain chewing gums. It acts to reduce levels of mutans streptococci in the plaque and saliva. (Deshpande A, Jadad AR.,2008)</p>

The symbols used in this workbook

Throughout this workbook you will see certain symbols. These will guide you through the reading and learning tasks during the training. The following is a list of symbols used and their meanings.



Read this and think about what it means to your practice.



Write up your ideas/answer.



Do this on your own.



“Buzz group” - discuss this with the person next to you



Group work - discuss and answer the questions in a group.



This point is important

Test yourself



Test your knowledge on the evidence relating to oral health. Read the statement and decide if it is true or false.

No	Questions	False	True	Don't know
1	Studies show some oral health conditions in the mother can be associated with adverse pregnancy outcomes such as preterm deliveries, low birth weight babies and preeclampsia.			
2	Physiological changes during pregnancy may result in an increased risk of gum disease and tooth decay.			
3	Mothers or caregivers can pass decay-causing bacteria on to their babies.			
4	Dental problems are the third most common reason for ambulatory preventable hospital admissions in children under five years of age.			
6	Putting a baby to sleep with a bottle is likely to lead to tooth decay.			
7	Poor dental health is the single most common chronic childhood disease.			
8	Tooth decay can occur when a baby's first tooth erupts.			
9	Healthy baby teeth are not important because they fall out and serve a limited purpose.			
10	Children do not need to see a dentist until they are five years of age.			
12	Low fluoride toothpaste should be used for children aged 18 months to six years.			
13	For adults and children, only a pea-sized amount of toothpaste on the toothbrush is required.			
14	Children are unable to clean their teeth properly until they are eight years old (or can tie up their shoe laces) and should be assisted until then.			
15	All children can access the public dental service for free or at low cost.			
16	Pregnant women with morning sickness can experience tooth enamel erosion.			

Introduction



Oral health is fundamental to overall health, wellbeing and quality of life. A healthy mouth enables people to eat, speak and socialise without pain, discomfort or embarrassment (National Advisory Committee on Oral Health 2004). Tooth decay is the most common chronic disease of childhood and in its advanced stages is accompanied by infection and pain. As the disease progresses, it can impact on general health, affect speech, cause sleep problems and disrupt social and academic development in children.

Every child is at risk of developing dental caries, although some groups of children are more vulnerable than others. Children from low socio-economic backgrounds, culturally and linguistically diverse communities and rural communities experience the greatest risk. Children living in areas with fluoridated water experience a lot less dental decay than those in areas without fluoridated water.

What does the evidence have to say about oral health?

- The extent of poor oral health within a community is a clear indicator of disadvantage (Rogers 2011).
- There are associations between poor maternal oral health and adverse pregnancy outcomes such as preterm deliveries, low birth weight babies and preeclampsia (Radnai et al 2009).
- Poor maternal oral health may increase the risk of development of early childhood caries in their children (Berkowitz 2003)
- Treating dental decay during pregnancy can reduce the risk of infants developing early dental caries (Australian Health Ministers Conference 2004).
- Babies can acquire decay-causing bacteria through the direct transmission of infected saliva as a result of the mother having untreated tooth decay, as early as three months of age (Wan et al 2003).
- Frequent fruit juice consumption may be associated with early onset dental caries (Caulfield et al 1993).
- Dental problems were the third most common reason for preventable hospital admissions for children under five years of age in 2010-2011 as indicated in the Victorian Health Information Surveillance System.

As an early childhood professional you are in a unique position to build a relationship of trust with clients. By developing confidence among parents, you can help prevent the development of tooth decay and contribute to children's overall health.



Here are some of the challenges you will face when introducing oral health to your clients?

You will face a number of challenges when working with families on oral health promotion:

- Many women in Australia do not access dental services during pregnancy (George et al 2011).
- Fruit juices and fruit drinks are widely consumed by children despite the high sugar content and decay potential, because of low cost, high acceptance by children and parents belief that they are nutritious. (Tinanoff, Kanellis and Vargas 2002).
- Children are eating less than the recommended amount of fruit and vegetables. A high proportion of two to 16-year-olds obtain more than their recommended energy from sugar from the foods they eat (Commonwealth of Australia 2007).
- Dental visits before the age of two years are rare. Approximately only 12% of two-year-olds in Australia have seen a health professional concerning their oral health (Slack-Smith 2003).
- Generally families do not think about oral health until they are faced with pain. The challenge is to change this mindset and encourage parents to think about protecting and preventing teeth problems.

Chapter One

Talking Baby Teeth 101

This chapter outlines:

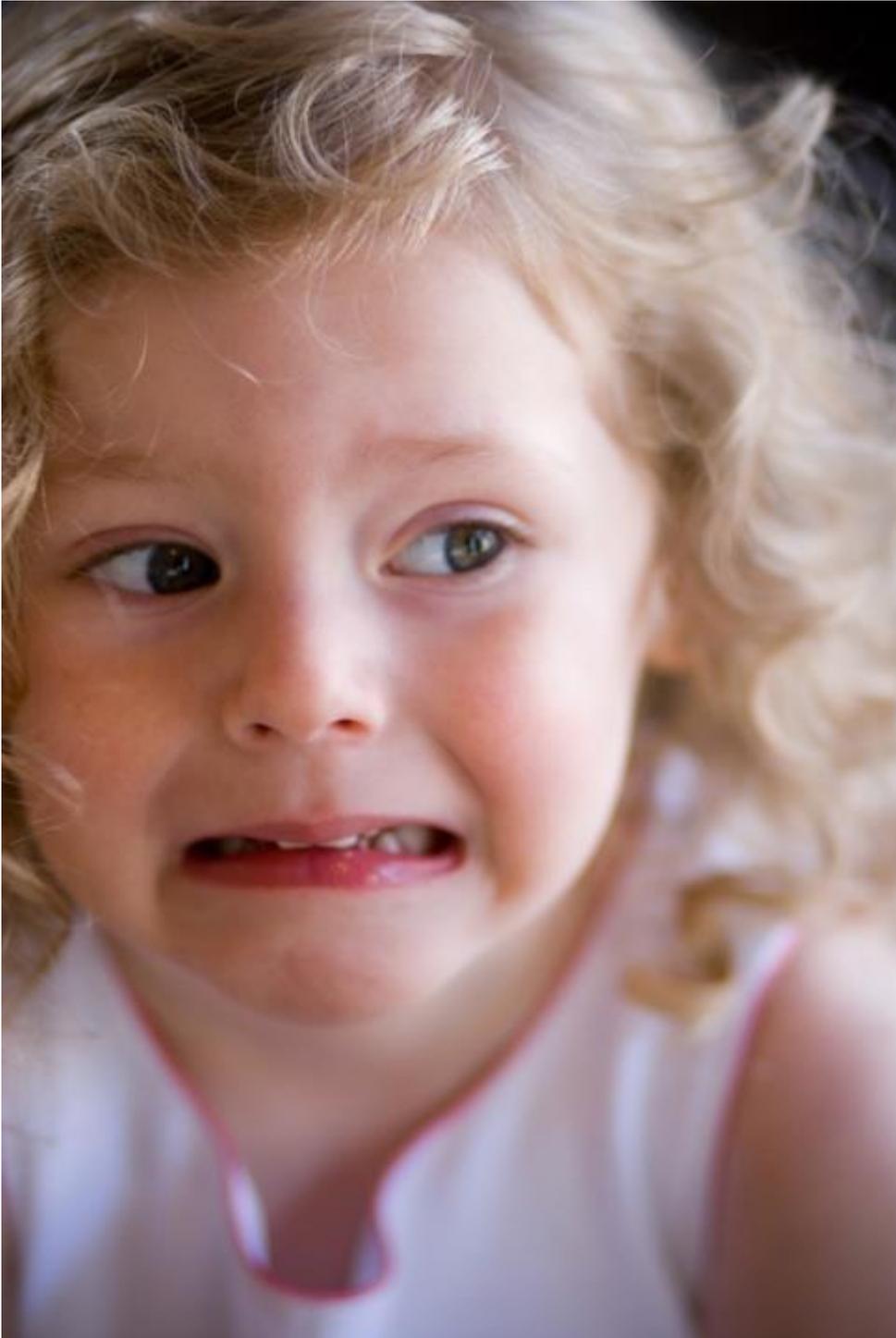
- Victorian oral health data
- evidence-based material to support the importance of dental care in young children (0-3 years)
- basic anatomy and physiology of the mouth and teeth
- formation of baby and permanent teeth
- the role of bacteria in tooth decay
- reflecting on action to take in our workplace to include oral health in your work with families.

Discussion starter

This toddler has a beautiful smile, with baby teeth that show no signs of decay.



But what if...
Now turn over the page.



...this toddler's baby teeth looked like this? How would she be affected?
What would she be experiencing?

The extent of tooth decay in children in Victoria



What is the situation in Victoria in terms of tooth decay in young children?

The *Victorian Child Health and Wellbeing Survey (2007)* tells us that 71% of children aged between one and five years have never been to the dentist.

Look at the data presented in figures 1 and 2 (Dental Health Services Victoria 2011). This data shows the number of decayed, missing or filled teeth (dmft) in children aged 0 to 5 years who attended public dental services. A higher dmft number indicates poorer oral health. Serious tooth decay may require hospitalisation for treatment. Figure 2 shows the number of children admitted to hospital for preventable dental conditions.



Group work
Discuss Figures 1 and 2 and answer the following questions:

- In which areas of Victoria are children likely to experience more tooth decay?
- Discuss your experiences of seeing dental decay in the children of your clients. What was the youngest age of a child with decay? In your experience, which children are more at risk of experiencing decay? What has been the attitude of parents to tooth decay in their young children?
- Why do you think tooth decay is so prevalent in some children?
- Which two metropolitan and rural areas had the highest admissions to hospital for preventable dental conditions?



The data contained in Figures 1 and 2 does not represent all preschool aged children, only those attending public dental services.

Figure 1

The dmft score for children aged 0 to 5 years attending public dental services in Victoria.

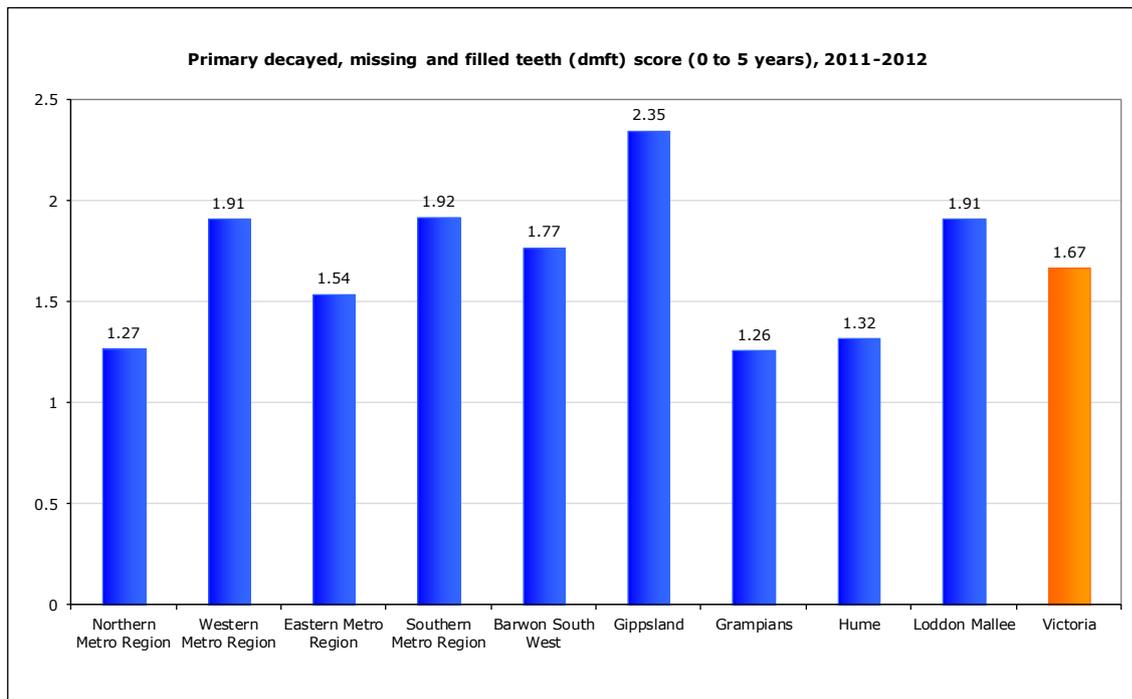
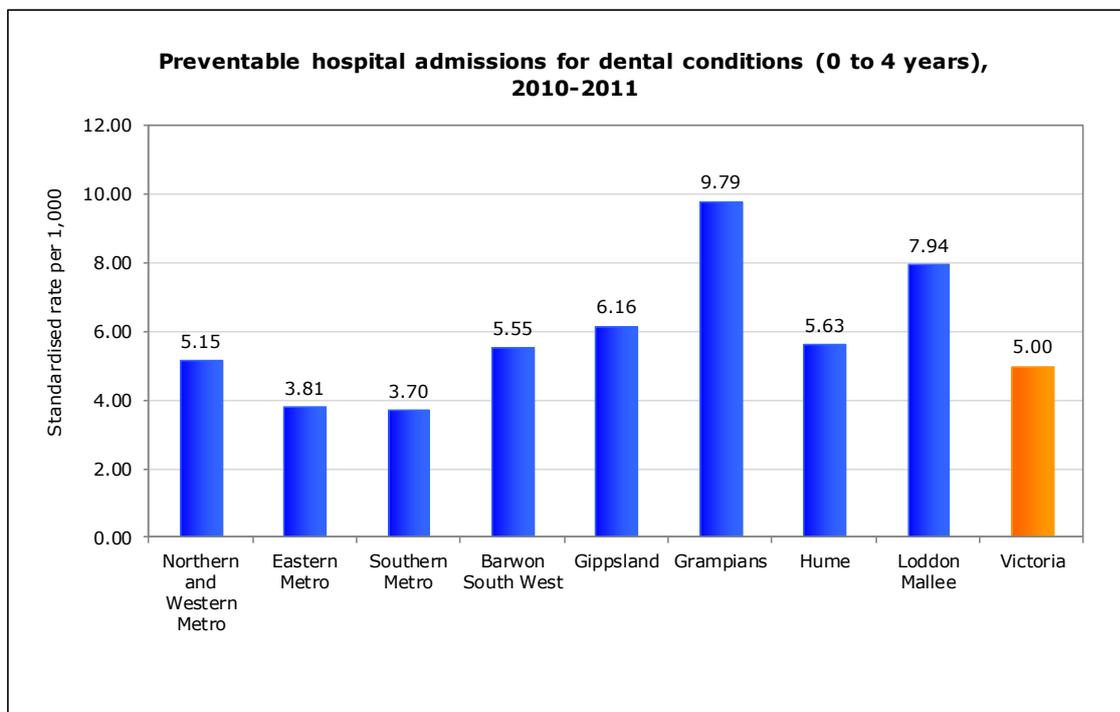


Figure 2

The number of children per 1,000 admitted to hospital for dental treatment that was preventable



For children 0 to 4 years dental problems are the third most common reason for preventable hospital admission. Asthma is the most common, followed by ear, nose and throat conditions.

The mouth



Before we look at teeth, let's look at some of the important parts of the mouth that have a close relationship with our teeth.



Salivary glands

The three main salivary glands are the parotid, submandibular and sublingual. They are important structures for the health of our teeth. Saliva is produced by salivary glands located in various parts of our mouth. The glands are capable of producing one litre of saliva a day.

Besides playing a key role in digestion, saliva helps to prevent tooth decay. Not only does it clear food debris from the mouth, saliva neutralises the acid formed in our mouth when we eat and drink. Acid weakens tooth enamel, which is the first stage of tooth decay. Saliva also assists in healing weakened tooth enamel by returning minerals removed by the acid.

The gums (gingivae)

The gums are part of the soft pink tissue lining of the mouth that tightly surround the teeth, bones of the jaw and the periodontal ligaments. When healthy, they act as a seal or protective barrier to bacteria. If unhealthy the gums provide a gateway for bacteria from plaque to enter the deeper tissue of the periodontium

The taste buds

These are located on the tongue. If a toddler is frequently offered sweet foods and drinks, it strengthens the habit for eating sweet things, increasing the risk of tooth decay, and childhood obesity.

The alveolar bone

The ridge of bone containing the tooth sockets on the upper jaw and lower jaw bones that hold our teeth in place.

The pH of the mouth

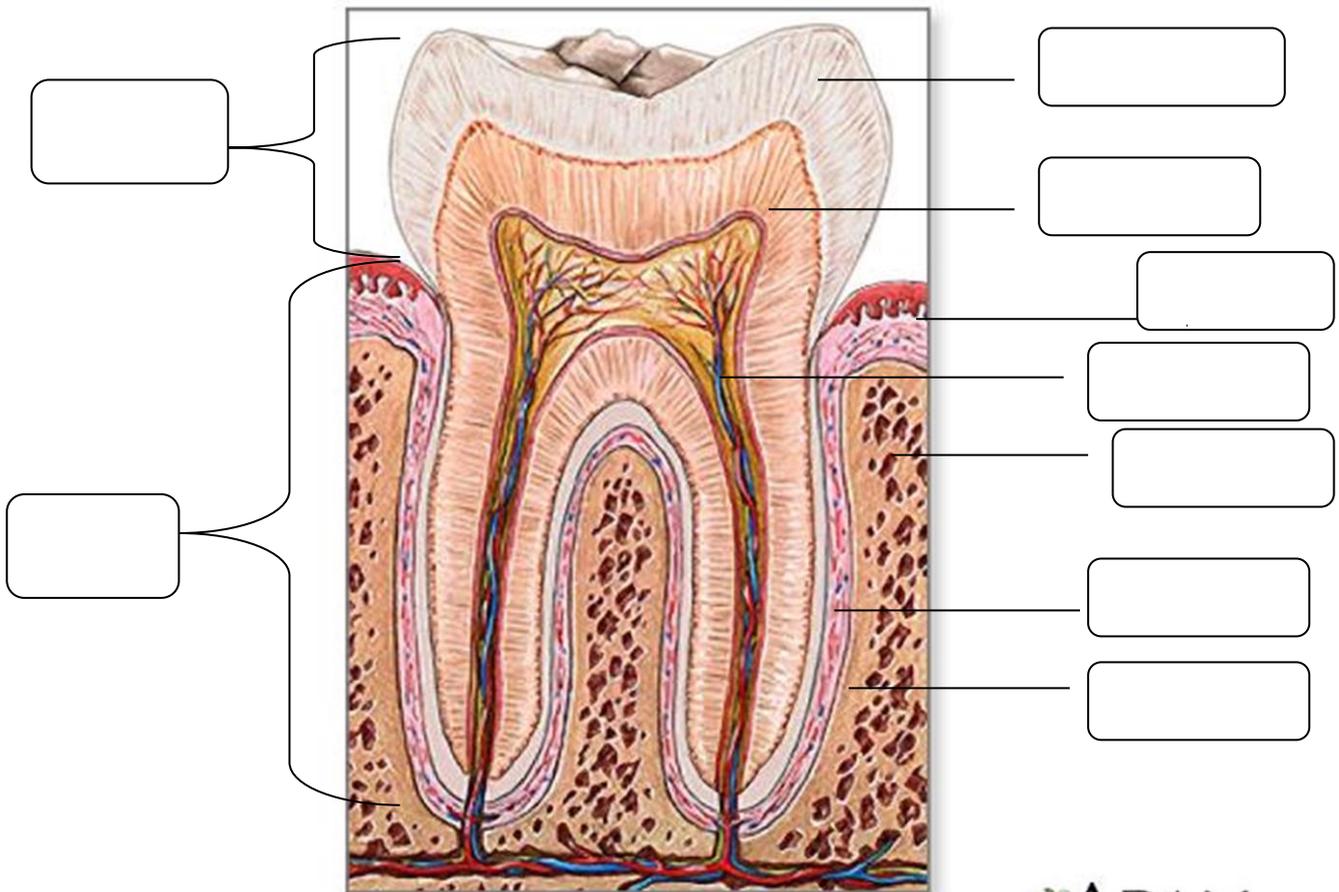
The normal pH of the mouth is alkaline in the range of 6.2 to 7. The critical point is a pH of 5.5. If the pH falls below this point, minerals making up the tooth's enamel begin to dissolve.

Parts of the tooth



Read the descriptions of the structures of the tooth on page 26 and label Figure 4 with the correct names.

Figure 4
Molar tooth



ADAM

What we see in our mouths is only half the story when it comes to teeth. Our teeth are complex structures and if decay is untreated, it can cause problems elsewhere in our body.



Crown

The **crown** is the part of the tooth that sits above the gum line. It is the part of the tooth you can see.

Enamel

The crown is covered with **enamel**. Enamel is the hardest tissue in the human body and is the protective layer of the tooth. It provides a strong surface for crushing, grinding and chewing food.

Enamel is thickest at the biting surface of the tooth and thinner near the gum line. Enamel is translucent and can range in colour from yellow to greyish white. The enamel portion of the tooth has no nerve supply.

Even though the enamel is very hard, it can be weakened or crack due to:

- **attrition** - wear of the tooth as a result of tooth to tooth contact
- **abrasion** - wear of the tooth produced by something other than tooth to tooth contact (for example tooth brushing with a hard brush)
- **erosion** - wear of the tooth brought about by a chemical process (for example acid attack)
- **fracture** - a crack caused by trauma or grinding of teeth.

Dentine

Dentine is the second layer of the tooth. It is covered by enamel and makes up the main portion of the tooth structure. It is both denser and harder than bone but weaker than enamel. It covers and protects the pulp. Tooth sensitivity is caused when the dentine is exposed to temperature changes or the acid and sugar found in foods or drinks. Dentine exposure is caused by receding gums, tooth decay and loss of enamel by dental abrasion, erosion, attrition or fracture.

Pulp

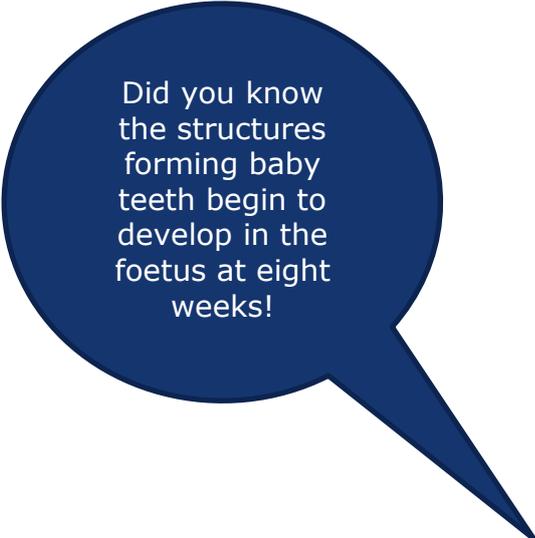
The **pulp** is the innermost portion of the tooth and is the only soft tissue of the tooth. It is made up of blood vessels, connective tissue and large nerves. It supplies nutrients to the tooth and its nerve endings receive sensations such as pain and temperature. The pulp, commonly referred to as the nerve, branches out and continues down each root through the canals of the tooth.

Cementum

The **cementum** is a bone-like connective tissue that covers the root of the tooth.

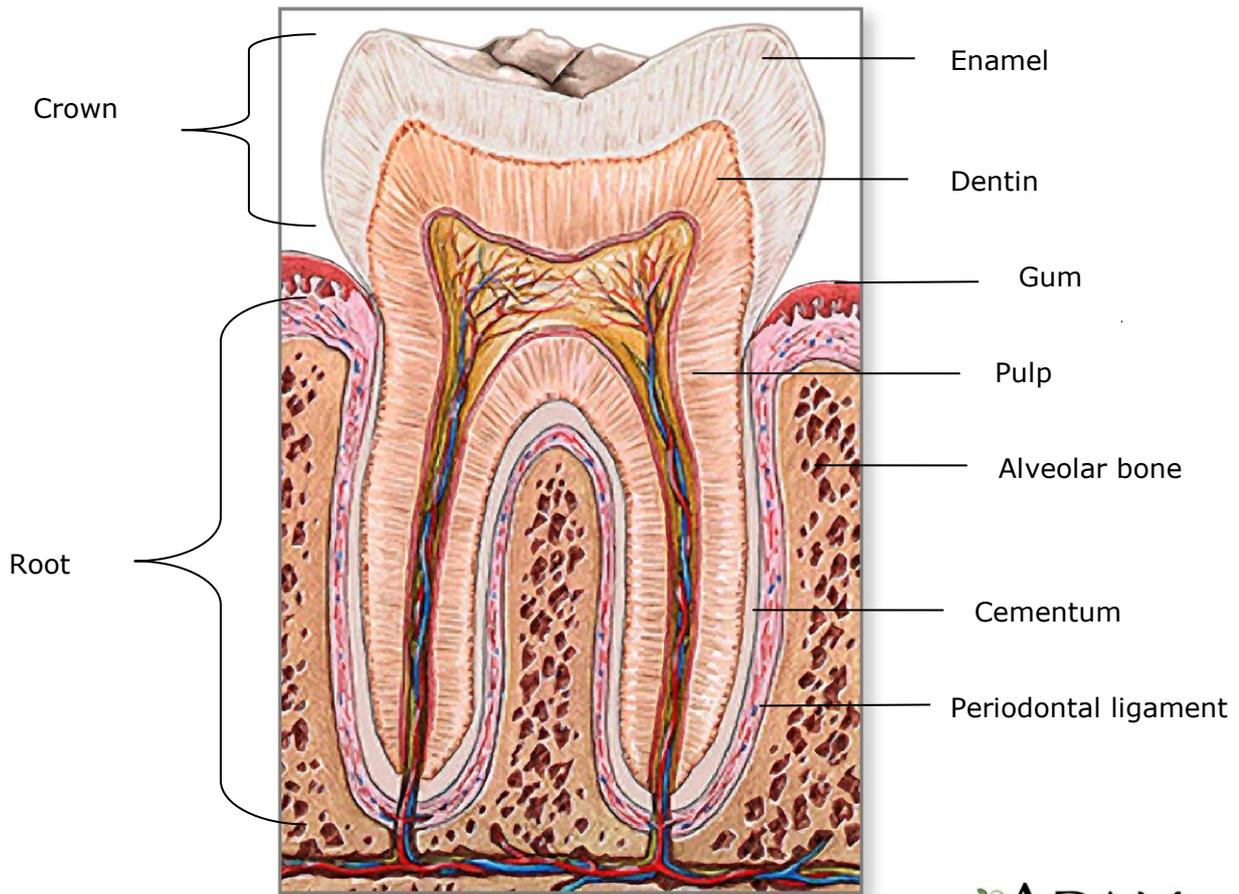
Periodontal ligaments

Periodontal ligaments are connective tissue fibres that attach the root of the tooth to the upper or lower jaw bone. The ligaments allow the tooth to absorb the natural compressive forces associated with chewing.



Did you know the structures forming baby teeth begin to develop in the foetus at eight weeks!

Figure 5
Tooth structure cheat sheet



Formation and eruption of baby teeth



The formation of baby teeth is a process that begins while the baby is in the womb, from eight weeks gestation. The lower front teeth are formed first, followed by the upper front teeth. This process continues after birth until the full set of ten upper (maxillary) teeth and ten lower (mandibular) teeth have erupted.



Baby teeth usually begin to appear in the mouth between six to eight months of age. Eruption times vary from child to child just as the individual growth rate varies. Usually children will have their full set of deciduous teeth by three years of age.

Baby teeth are whiter, softer and generally smaller than permanent teeth. Because they are softer, baby teeth can appear worn due to grinding and normal wear through eating. From around six years to twelve years of age, baby teeth are shed and replaced by permanent teeth.

Usually no teeth are visible in the mouth at birth, although occasionally some babies are born with an erupted incisor tooth known as a natal tooth. Some babies may also develop a neonatal tooth which is one that erupts within 30 days of birth (Cameron and Widmer 2003).

Figure 6
Baby teeth and when they erupt

Baby Teeth Chart

	<u>Eruption</u>	<u>Exfoliation</u>
Upper Teeth		
Central Incisor	8 – 12 months	6 – 7 years
Lateral Incisor	9 – 13 months	7 – 8 years
Canine	16 – 22 months	10 – 12 years
First Molar	13 – 19 months	9 – 11 years
Second Molar	23 – 31 months	10 – 12 years
Lower Teeth		
Second Molar	25 – 33 months	10 – 12 years
First Molar	14 – 18 months	9 – 11 years
Canine	17 – 23 months	9 – 12 years
Lateral Incisor	10 – 16 months	7 – 8 years
Central Incisor	6 – 10 months	6 – 7 years

Courtesy of Australian Dental Association Western Australia Branch

Patterns of baby teeth eruption:

- Lower teeth usually erupt before the opposing upper teeth.
- Girls usually get their baby teeth before boys.
- The teeth in both jaws usually erupt in pairs, one on the right side and one on the left.

Teething

Teething refers to the eruption of the baby and permanent teeth. A child may feel discomfort as new baby teeth emerge. The teething process takes about eight days before the tooth appears. It is important for parents not to assume confuse the symptoms of a sick child with that of teething

Signs of teething may include:

- irritability
- a child placing objects or fingers in their mouth and biting on them
- increased dribbling
- a child being choosy about foods or refusing foods altogether
- redness on cheeks
- swelling on gums
- restlessness by day, sleeplessness by night
- rashes on face or buttocks
- gums appearing red and swollen and if pressed, may feel hard and pointed (DHSV 2010).

For temporary relief, the child can be given something cool to bite on such as a teething ring that has been stored in the fridge.

If the child has an ongoing fever or diarrhoea it is important to seek medical advice.

Tooth Decay



The technical word for decay is *caries*, and decay in young children is called early childhood caries (ECC). It is a disease that causes damage to the tooth structure of baby teeth.

Did you know almost half of all children six years and under have dental decay!



Australian data tells us that almost 48.7% of children aged five to six years have a history of dental decay in their baby teeth (Dental Health Services Victoria 2011).

Of all the four-year-old children examined in public dental clinics, 20% had 90% of the tooth decay (Rogers 2011). It is said that dental decay in children is a disease of disadvantage (Armfield 2005).

Tooth decay is the most common chronic infection during childhood (Gussy and Waters et al 2006). It is over five times more prevalent than asthma among children. Also dental admissions are the highest cause of acute preventable hospital admissions for 0 to 19-year-olds where general anaesthetic is required for fillings and extractions (Rogers 2011).

Tooth decay can affect a child's general health by:

- causing intense pain
- requiring hospitalisation and emergency visits
- resulting in physical underdevelopment (Gussy et al 2006).

What is tooth decay?

Tooth decay is damage to the tooth structure. It starts with the enamel but progresses to the dentine and pulp of the tooth.

The process of tooth decay

In young children the upper front teeth are the first to be affected by decay. The decay process begins with the interaction of two key ingredients - **SUGAR** (from the food we eat) and **BACTERIA** that live in our mouths.

So how does tooth decay occur?

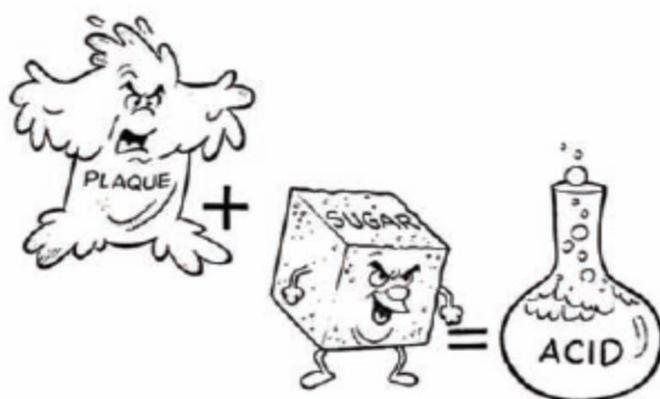
The bacteria primarily responsible for tooth decay are mutans streptococci. Mutans streptococci live in the mouth and interact with the foods we eat, particularly:

- sweet-tasting foods that are processed and packaged (for example cakes, biscuits, lollies, many breakfast cereals and fruit yoghurts)
- drinks that are not only high in sugar but contain a lot of acid (for example soft drinks, cordials and fruit juices).

Two things happen when mutans streptococci interact with sweet-tasting foods or drinks:

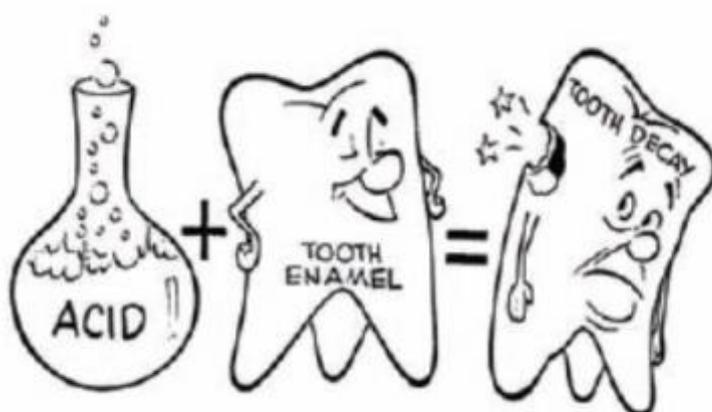


1. They use the sugars and acids contained in foods and drinks to grow and multiply, creating a soft, sticky coating called plaque. Plaque allows the mutans streptococci to stick to the teeth.



Courtesy of Missouri Department of Health and Senior Services

2. As plaque, the mutans streptococci further reacts with the sugars (particularly sucrose) or starch to create lactic acid. The acid on the tooth surface causes the plaque to build up on the teeth and in the mouth. This is called "acid attack". Our teeth do not like acid as it dissolves minerals out of the enamel through a process called "demineralisation"² which is the loss of calcium and phosphate.



Courtesy of Missouri Department of Health and Senior Services

² The first sign of demineralisation is a chalky white spot, and can easily be detected by parents, carers or non-dental professionals by lifting the upper lip of the toddler to view the gum line of the upper teeth. At this stage, the decay process can be reversed. An appointment should be made to a dentist or other oral health professional.

If these acid attacks happen often and the acid remains in our mouth for a long time, the demineralisation will weaken the tooth enamel. The enamel becomes porous and changes colour to look chalky and white. This is called a “white spot lesion”. If left untreated:

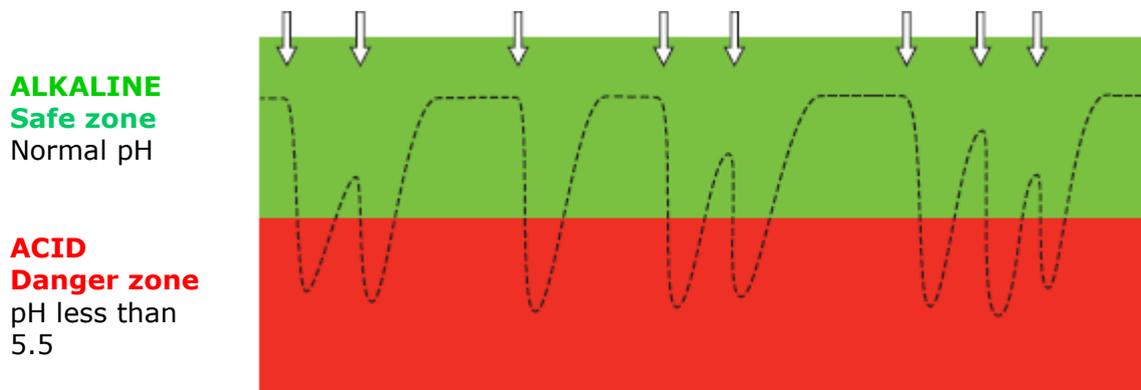
- fissures and cavities will appear over time
- the bacteria can enter other structures, such as the dentine or pulp
- infection can develop and spread to the jaw bone and other parts of the face and body (New Zealand Dental Association 2008).

The acid attack lasts for about 20 minutes after exposure to sugary foods. During the acid attack, the pH level on the tooth surface drops to below 5.5. After 20 minutes the neutral pH of the mouth is restored, minerals in saliva are re-deposited on the tooth surface and tooth enamel is restored.

If we consume sugary foods or drinks throughout the day without giving our mouths a break, we create a continuous acid attack. The pH in our mouth drops for a longer time causing the ongoing loss of tooth enamel minerals. This can lead to a cavity forming. An infant who is given fruit juice in a bottle, a squeeze tube to suck on or a lolly pop will have their teeth exposed to a constant acid attack that weakens the soft enamel of their baby teeth.

Figure 7

The effects of frequent sugar intakes



Courtesy of the New Zealand Dental Association

This diagram shows the effects of eating sugary foods throughout the day. The arrows represent sugar intakes during the day that are followed by acid attacks which drop the pH below the critical level of 5.5.

Spotting early tooth decay in toddlers

Early tooth decay can be hard to spot, you need to look very carefully at the baby or child's top teeth as these are the first to experience decay. The following series of photos shows the progression of tooth decay.

Figure 8a

Healthy teeth and gums



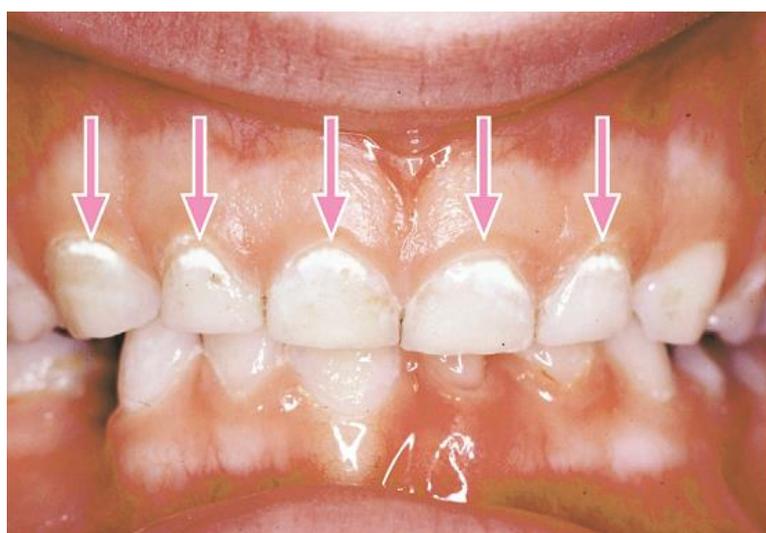
A healthy mouth

Pink gums (healthy blood supply). Teeth are not discoloured. There is no plaque, the teeth are clean. Upper and lower teeth meet each other when biting.

Make an appointment for checkup

Figure 8b

Signs of early tooth decay



Signs of early tooth decay

Upper incisors develop a dull, white band along the gum line (the area at the base of the tooth, near the gums).

Make a dental appointment now

In Figure 8b, you can see a dull white band along the gum line (sometimes called white spot lesions or chalky patches). This is the first sign of decay and usually goes unnoticed by parents. If untreated, this can lead to a hole or cavity in the tooth as a result of advanced tooth decay.

Figure 8c

Signs of early tooth decay



Signs of early tooth decay

The brown spots on the teeth are a result of a loss of minerals from the tooth enamel, there is redness and swelling of the gums.

A dental professional can make a difference and can encourage good oral hygiene practices.

Make a dental appointment now

There is a yellow, brown or black discolouration on the surface of the teeth. This indicates the progression of tooth decay as the tooth enamel is broken down.

Figure 8d

Advanced tooth decay



Advanced tooth decay

Blackened areas and very red and inflamed gums.

This level of caries can lead to the removal of teeth.

Make a dental appointment now

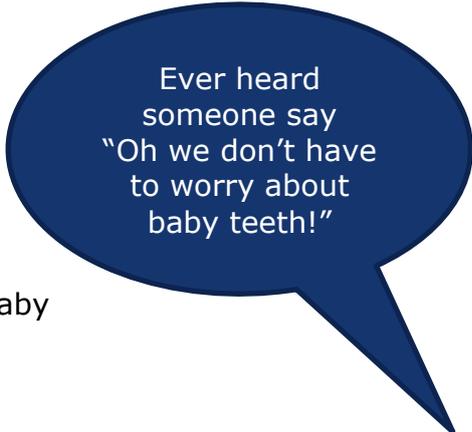
Teeth look like brownish-black stumps and the gums look red and swollen. These are signs of advanced tooth decay. The child may complain that they have mouth pain or a toothache and the child may have bad breath.

Why are children so vulnerable to tooth decay?



1. Community attitude

A lot of people think that baby teeth are not important because they fall out and are replaced by permanent teeth within a few years. In fact, some baby teeth remain until about 12 years of age.



Strong healthy baby teeth are important because they help a child to:

- chew and swallow food safely
- pronounce words properly and speak correctly
- smile without feeling embarrassed which avoids low self-esteem
- develop their jaw and keep space in the jaw for the permanent teeth to grow into the correct position.



Look at second photo. This is a picture of decay in baby teeth or early childhood caries. Is it fair to the child if their parents believe that baby teeth are not important?



What are your thoughts on this?

.....

.....

.....

.....

.....

2. Transmission of decay-forming bacteria from parents to infant

Did you know
mutans
streptococci
bacteria is
transferred from a
mother to her
infant!

Mums especially, dads and other care givers can pass mutans streptococci through their saliva to their baby or toddler, particularly if they have any tooth decay that is not treated (Law et al 2006).

Parents and carers can limit the transfer of decay-causing bacteria by:

- Looking after their teeth and having any decay treated.
- Not putting anything in the infant's mouth if it has been in their mouth.
- Chewing sugar free gum.

Teeth can decay as soon as they erupt in the mouth (Rogers 2011) and babies can acquire the bacteria as early as three months of age (Wan et al 2005).



It is important for parents to have healthy gums and teeth. Any tooth decay should be treated to prevent parents from passing bacteria onto their children.

3. Misplaced concerns or actions – “pacifying baby”

Parents try very hard to care for their baby but sometimes they can unknowingly do things that are not in the best interests of their child.

Often parents will try a variety of things to settle their baby without realising that their actions can affect the baby's oral health. The following common practices can put an infant at risk of tooth decay:



1. Dipping the baby's dummy into a sweetened substance to try and calm a crying baby.
2. Putting baby to bed with a bottle to help baby settle.
3. Giving the bottle for long periods of time.
4. Putting sweet and/or acidic drinks in the bottle.



What happens if a child is put to bed with a bottle?

Milk contains a sugar called lactose. If a baby or toddler's teeth have prolonged contact with milk, juice or other fluids containing carbohydrates, they can develop tooth decay.

As a child lies down to sleep with the bottle, the teat rests against roof of the mouth. When asleep, less saliva is produced and there is less swallowing. This allows the liquid to remain in the mouth and pool around the teeth.

The decay-causing bacteria in the child's mouth changes the sugars in the drink to acid which damages the tooth surface. Over time, repeated use of a bottle to settle a child creates weak spots on the teeth which can eventually become holes. *(Adapted from NSW Health Early Childhood Oral Health Guidelines for Child Health Professionals).*

This early decay has been called nursing or bottle-feeding tooth decay. It mainly affects the upper incisors and the biting surface of the molar teeth.

Figure 9

Early decay in baby teeth known as nursing or bottle-feeding tooth decay



Courtesy of Australian Dental Association Western Australian Branch

The effects of dental decay in toddlers and children

Children with decay will feel pain. They may find it difficult to eat certain foods, lose weight and be self-conscious. Severe decay in baby teeth can have serious consequences for a child's speech, jaw development and social development.

The longer tooth decay is left untreated, the more the child will experience:

- pain and discomfort
- difficulty sleeping
- the spread of infection to other parts of the mouth which can cause damage to the developing permanent teeth
- chewing and eating difficulties, affecting growth and development
- poor weight gain for their age
- poor self-esteem
- a higher risk of new decay in other baby and adjacent permanent teeth
- a greater chance of more complicated and expensive treatment, including possible hospitalisation and treatment that may require a general anaesthetic
- anxiety about visiting a dentist because the child associates dentists with pain (New Zealand Dental Association 2008).



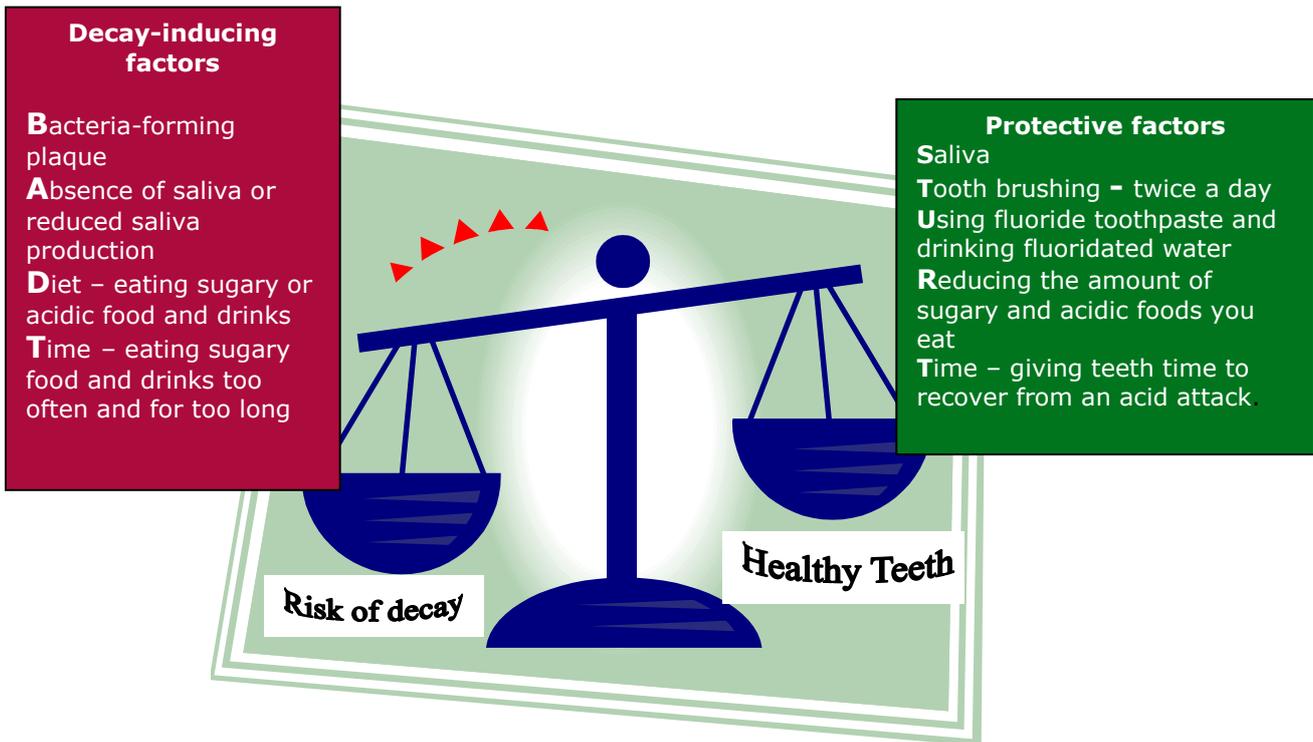
Although baby teeth are not permanent they should be treated with care to prevent cavities and decay. Infection from baby teeth can damage the permanent teeth developing under them and increase the risk of decay in adjacent permanent teeth.

The balance between protective and decay inducing factors



A child develops decay when the balance between factors protecting against decay and promoting decay is disturbed. It's important that the decay-inducing factors don't outweigh the protective factors.

Figure 10
The decay balance



Adapted from http://ohiodentalclinics.com/curricula/sealant/mod3_1.html

Protective factors play a role in preventing decay and protecting teeth.

1. The role of saliva

- Saliva protects the teeth from dental decay by neutralising the acids produced by the bacteria. Saliva also helps flush food and debris from the mouth.
- Saliva flow is reduced at night so sending a child to bed with a bottle of milk or juice means the teeth are constantly bathed in sugar at a time when there is less saliva in the mouth.
- Foods such as raw vegetables can promote the flow of saliva and counteract acid attacks on teeth.
- Saliva also helps repair acid damage to the tooth surface by moving minerals back to the tooth enamel.

2. Role of time - frequency and duration

How often sugary foods and drinks are consumed and the time taken to consume them play a key role in the development of tooth decay.

Eating sugary foods and drinks throughout the day is harmful because every time they are consumed the pH level of the mouth is significantly reduced causing acid to build up in the mouth. Sweet foods that take a long time to consume and those that stick to the teeth produce a much longer acid attack (for example dried fruits, chocolates, lollipops, potato crisps and sweet biscuits).

When it comes to looking after a child's teeth, how often and the time taken to consume sugary foods and drinks is more important than the total amount of sugar consumed. For example, if a child eats a bag of lollies in one go, the acid attack happens only once. But if the child eats them over a couple of hours, the acid attacks lasts longer.

3. Role of Fluoride

Fluoride helps prevent tooth decay by both strengthening and protecting the teeth. Fluoride:

- **Strengthens** baby teeth by building fluoride into the tooth's structure and making it more resistant to the demineralisation caused by acid
- **Protects** baby and permanent teeth by binding with the tooth enamel to repair the early stages of decay. Fluoride replaces the minerals lost on the surface of the teeth during demineralisation
- **Reduces** the ability of the plaque bacteria to produce acid.

So the decay causing factors are:

- ☹ Bacterial plaque, which includes mutans streptococci.
- ☹ Reduced saliva flow (remember there is less at night time and many medications such as antihistamines reduce the flow of saliva).
- ☹ Frequent snacking on sweet-tasting food and acidic soft drinks throughout the day.
- ☹ Medicines (in syrup form) with added sugar.

The good news is there are **protective factors** that can delay the process of decay. The protective factors are:

- ☺ Saliva flow.
- ☺ Brushing teeth twice a day using fluoride toothpaste from 18 months of age.
- ☺ Strengthening enamel by drinking milk and eating natural dairy foods.
- ☺ Limiting sweet-tasting and acidic foods and drinks.
- ☺ Having sweet-tasting and acidic foods and drinks at meals times and not as an in between snack – avoiding grazing on sweet foods throughout the day (for example fruit juice or soft drinks in baby bottles, sucking of food mixtures like yoghurt from a tube).
- ☺ Having a child's teeth and mouth checked by a health or dental professional by two years of age.

In summary, the key measures parent can take to protect their children's baby teeth from tooth decay are:

1. Parents to seek treatment for decay in their own teeth.
2. Don't put baby to bed with a bottle.
3. Clean your child's teeth TWICE a day as soon as first tooth appears. Use a soft brush and water.
4. Use a children's low fluoride toothpaste from 18 months.
5. Give children fluoridated water from the tap to drink.
6. Provide healthy snacks of fruit and vegetables, cheese and plain yoghurt.
7. Limit or avoid sweet treats.

Chapter Two

Keeping Little Smiles Healthy

This chapter outlines:

- key messages for parents to help protect their child's teeth against decay
- pressures families' face that affects their decision making.
- age appropriate mouth and teeth care
- public dental access for children under five years of age
- how to include oral health in your work with families.

Protecting baby teeth from decay

How can we help parents reduce their child's risk of tooth decay?



There are several steps parents can take to keep their child's teeth healthy and reduce decay. These steps should be discussed with parents who attend the early parenting program.

See Figure 12 below. These simple steps will give children the best chance of having healthy baby teeth now and healthy permanent teeth in the future³.

Figure 11

How to protect children's teeth from decay

Age range	Protecting baby teeth
<p>0 to 6 months</p> 	<p>Clean Well</p> <ul style="list-style-type: none"> For parents and carers - dummies or teats should not be placed in your own mouth before they are given to an infant. This action can spread decay-causing bacteria to the infant. <p>Eat Well</p> <ul style="list-style-type: none"> Encourage mums to exclusively breastfeed to around six months of age. If using a dummy do not dip it in anything sweet, such as honey, sugar or a sweetened drink. <p>Drink Well</p> <ul style="list-style-type: none"> Exclusively breastfed infants do not need additional fluids up to six months of age. For formula-fed infants, cooled boiled tap water may be used if additional fluids are needed. Fruit juice is not necessary or recommended for infants because of its high sugar content and acidity.

³ These actions are based on evidence and the nationally agreed consensus on oral health messages for the Australian public which can be found at:

<http://www.adelaide.edu.au/oral-health-promotion/publications/journal/paper/>

Age range	Protecting baby teeth
<p data-bbox="172 304 536 349">6 to 12 months</p> 	<p data-bbox="620 259 842 297">Clean Well</p> <ul data-bbox="620 304 1473 790" style="list-style-type: none"> • Clean your child's teeth and gums as soon as the first tooth appears. • Use a small soft toothbrush with no toothpaste. If baby does not like the brush, use a damp cloth to wipe the tooth and gums. • Clean teeth twice a day, preferably after the morning feed and the night feed. • Lift baby's upper lip to watch for early signs of tooth decay. • Parents/carers should not place a pacifier or teat in their own mouth then give it to an infant because this can transfer tooth decay bacteria to the infant. <p data-bbox="620 819 794 857">Eat Well</p> <ul data-bbox="620 864 1473 1391" style="list-style-type: none"> • Introduce solid foods at around six months of age. Start with an iron rich food such as iron-fortified cereal, pureed meat, cooked tofu, lentils or chickpeas. Then add vegetables and dairy products like natural unsweetened yoghurt and cheese. • Introduce different food textures to help your baby develop chewing skills. Offer foods that are an appropriate texture and consistency for your child's developmental stage (for example purees, mashed foods, minced and chopped foods, finger foods, family foods). • If using packaged weaning foods, choose ones with less sugar and salt and give a mix of flavours and textures. <p data-bbox="620 1429 842 1467">Drink Well</p> <ul data-bbox="620 1473 1473 1854" style="list-style-type: none"> • If bottle feeding, hold the baby while feeding and respond to infant cues during the feed. • Put infant to bed without a bottle or take the bottle away when feeding is finished. This reduces the risk of choking, ear infection and tooth decay. • At six months introduce a cup. • Phase out the use of the bottle by 12 months of age. • Fruit juice is not necessary or recommended for infants.

Age range	Protecting baby teeth
<p>12 to 24 months</p> 	<p>Clean Well</p> <ul style="list-style-type: none"> • Brush your child's teeth twice a day, in the morning and before bed. • At 18 months start using a pea-sized amount of low fluoride children's toothpaste. • Lift baby's upper lip to watch for early signs of tooth decay. • Ensure your child's teeth are checked by two years of age. This might be done by your maternal and child health nurse, family doctor or dentist. <p>Eat Well</p> <ul style="list-style-type: none"> • By 12 months infants should be consuming a wide variety of nutritious foods eaten by the rest of the family. • Foods and drinks containing sugars should be limited, especially between meals. • Encourage children to eat whole fruit and vegetables, and drink plain tap water or milk rather than juice is the best way to establish good eating habits. <p>Drink Well</p> <ul style="list-style-type: none"> • Do not use a bottle after 12 months. • Give all drinks in a cup. • Breast milk, full cream milk and tap water are the best drinks for your child. • Avoid giving toddlers sweet drinks like fruit juices, soft drinks and cordials as they contribute to decay in baby teeth. • Sweet drinks reduce the quality of children's diets, exposes them to the habit of drinking sweet drinks and are linked to weight gain. • Children do not need fruit or vegetable juice to have a balanced and healthy diet.

Age range	Protecting baby teeth
<p data-bbox="209 259 496 304">2 to 5 years</p> 	<p data-bbox="619 259 842 304">Clean Well</p> <ul data-bbox="619 304 1461 734" style="list-style-type: none"> • Brush your child's teeth twice a day with pea-sized amount of low fluoride children's toothpaste. • Children need support to brush their teeth up until around eight years of age. • Lift your child's upper lip to check for signs of tooth decay regularly. • Baby teeth need check-ups too! Don't wait until your child is in pain. Ensure your child's teeth are checked by two years of age. This might be done by your maternal and child health nurse, family doctor or dentist. <p data-bbox="619 779 794 824">Eat Well</p> <ul data-bbox="619 824 1487 1048" style="list-style-type: none"> • Offer healthy snacks between meals such as fresh fruit, chopped vegetables, yoghurt, cheese, wholemeal or whole grain sandwiches and dry biscuits. • Limit sweet foods such as fruit bars, sweet biscuits, lollies, chocolates and muesli bars, especially between meals. <p data-bbox="619 1122 842 1167">Drink Well</p> <ul data-bbox="619 1167 1487 1424" style="list-style-type: none"> • Tap water and plain milk are the best drinks for children. From two years of age, reduced fat milk can be offered. • Avoid giving toddlers sweet drinks like fruit juices, soft drinks and cordials as they contribute to decay in baby teeth and encourage the habit of drinking sweet drinks which is linked to weight gain.

For more detailed information about infant feeding please read the latest National Health and Medical Research Council (2012) *Infant Feeding Guidelines Information for health workers*. Canberra: National Health and Medical Research Council. You will find the full guidelines and a summary www.eatforhealth.gov.au. You can also access the Australian Dietary Guidelines and other useful resources such as:

- Giving your baby the best start (brochure)
- Healthy eating for children (brochure).

The key actions parents can take to protect their child's baby teeth from tooth decay

1. Don't put baby to bed with a bottle.
2. Clean your child's teeth TWICE a day as soon as first tooth appears. Use a soft brush and water.
3. By 12 months baby should be drinking from a cup.
4. Start using children's low fluoride toothpaste at 18 months.
5. Every child should have their teeth checked by two years of age. This can be done by your maternal and child health nurse, family doctor or dentist.
6. Tap water is the best drink between meals (boiled and cooled for children up to 12 months of age).
7. Avoid giving children fruit juice and other sweet drinks.
8. Provide healthy snacks between meals, for example, fresh fruit pieces, vegetables, dry biscuits, cheese, wholemeal or wholegrain sandwiches and plain unsweetened yoghurt.



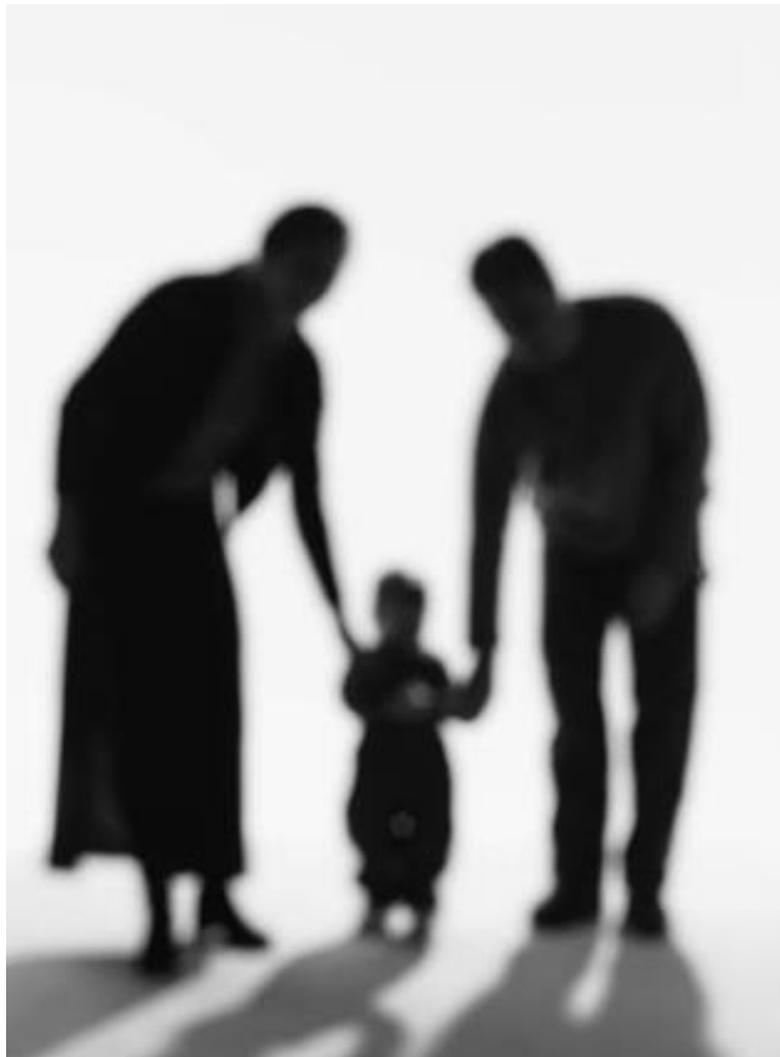
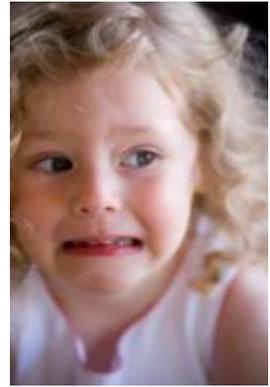
Despite many parents knowing what is best for their children's teeth, they are faced with many pressures that make it difficult to put that knowledge into practice.

Many of the families who access early parenting services may have faced hardships and obstacles not experienced by others in the population. It is important for you to understand what those pressures are and to put yourself in the parents' shoes.



Group discussion work

This is the family of the sad young toddler (page 14). They live in a culturally diverse suburb of Melbourne, an area with high levels of tooth decay. What are the pressures that might get in the way of these parents making the best decisions with regards to their daughter's oral health?





Write down the different pressures that these parents might be facing (for example culture practices, beliefs, the food or advertising industry).

Age	Pressures or forces
0 to 6 months	
6 to 12 months	
12 months to 2 years	
2to 5 years	

You can help parents think about ways to overcome these pressures that can lead to choices that might harm their children’s baby teeth. Parents need simple and practical advice to make the healthy choice an easier choice.

Brushing children's teeth



Cleaning teeth twice a day is one important step towards preventing tooth decay. Caring for gums and teeth starts from birth.

Remember, the *mutans streptococci* bacteria thrive on high sugar foods and carbohydrates and produce the acid that begins the process of tooth decay. Brushing teeth removes the bacteria and food particles and reduces the production of harmful acid.

Children are not born with these decay-causing bacteria. The bacteria can be transmitted from birth onwards usually from their mother or caregivers.

Did you know that children who brush their teeth twice a day with fluoride toothpaste have better oral health than those who brush less frequently.

What every parent should know about brushing

When to start

- When the first tooth appears try using a **junior (child) toothbrush** with **soft bristles and a small head**.
- The baby may not like the feel of the tooth brush at first, so try a soft damp cloth instead. Keep trying with the toothbrush until your baby is used to the sensation.
- Clean with water only until 18 months of age. Get into the habit of brushing after breakfast and after the last feed at night.

Introducing tooth paste

- At 18 months introduce a low level fluoride tooth paste. Only use a small pea-sized amount.⁴



⁴ For more technical information refer to the 'Guidelines for the use of Fluoride in Australia' which can be found at: http://www.arcpoh.adelaide.edu.au/publications/journal/papers/arcpoh_2006c.pdf

- From six years of age standard fluoride tooth paste can be used. By this age, children are better able to spit out the toothpaste.
- Children should be encouraged to spit out toothpaste, not to swallow it and not to rinse.

Dental fluorosis happens when developing teeth are exposed to too much fluoride and can cause defects in the developing enamel. This is why children should spit out toothpaste.

The small amount of toothpaste left on teeth after spitting out can continue to protect the teeth against decay. That's why it's best to "spit, but don't rinse".

How to brush children's teeth

1. Smear a pea-sized amount of low fluoride toothpaste on a soft brush with a small head.
2. Sit the child on your lap facing away from you or sideways to you, **or** stand behind the child. Tilt the child's head back against your body so you can see all the surfaces of the teeth. Do whatever gives best access to their mouth.
3. Angle the bristles of the toothbrush towards the gum. Move the brush in gentle circles along the outer sides of the teeth and gums.
4. Continue to brush in gentle circles on the inner teeth and gums.
5. Use a light back and forth motion on the chewing surfaces of the teeth.
6. Encourage the child to spit out the toothpaste and not to swallow it. Do not rinse.

1.



2.



3.



4.



5.



6.



Reminders

- Do not use too much force when brushing as this can hurt the child and damage the gums.
- Regularly lift the child's upper lip to check for early signs of decay. A child should have their teeth checked by two years of age. This can be done by a maternal and child health nurse, family doctor or dentist. After the first visit to a dentist regular check-ups are important. Do not wait until there is a problem, it might be too late!
- If the child is showing some independence allow them to try brushing their own teeth (around two to three years of age). Parents should also brush the teeth after the child has had a go.
- Supervise children when they brush their teeth until you are sure they can do it well. It is important that the child learns the skill and sees brushing twice a day as part of their routine.



Children up to seven or eight years of age do not have the fine motor skills or maturity to brush their teeth on their own. When a child can do up their own shoe laces they are physically able to brush their teeth. It is a good idea to check that they have actually brushed and are doing it properly.

Helpful hints for parents

- Introduce a toothbrush early to get your child used to the sensation of having it in their mouth.
- Routine is important.
 - Make brushing fun by coming up with a song to sing each morning about "Bs" and "Ds" - Out of **B**ed, **D**ressing, **B**reakfast and **B**rush teeth.
 - At night the song could be about **B**ath, **D**inner, **B**rush teeth and **B**ed.
- Use positive language and try to make brushing a fun time.
 - Offer encouragement by saying, "What a great smile you have", "Can we make it sparkle?" or "You are doing such a great job".
 - Use a favourite song while brushing or sing a familiar song but change the words to fit. For example, "This is the way we brush our teeth, after we eat our dinner" or "The toothbrush in the mouth goes round and round".
 - Tell a story about animals with big teeth.
 - Use favourite toys.
- If toddlers have a bath before going to bed, give them a toothbrush to play with while you brush their teeth in the bath.
- Always let the child have a go and praise their efforts.
- Don't use sweet food as a bribe! Reward with praise and hugs.
- Children learn by imitating others. Encourage parents to brush their teeth in front of their children.





What other tricks or advice do you know that can assist parents to develop a brushing routine with their children?

Baby teeth also need a check-up



It is recommended that a child should have an oral health check by two years of age by a maternal and child health nurse, family doctor or dental professional (National Oral Health Promotion Clearing House 2011).

Sadly the statistics tell another story.

- It is rare for children to have a dental check-up before the age of two. Only about 12% of two-year-olds in Australia have ever seen a health professional concerning their oral health (Gussy ,Waters, Walsh, Kilpatrick 2006b)
- Dental problems were the third most common reason for preventable hospital admissions for children under five years in the 2010-2011 financial years. Asthma and ear nose and throat infections were the other two.⁵

It is important to encourage parents not to wait until their child has visible decay before seeing the dentist.

Did you know
all children 0-12 years
can receive dental
treatment for free or a
low cost at over 80
public clinics across
Victoria?



dental health
services victoria
oral health for better health

For children aged 0-12 years, whose parents do not hold a concession card or aren't eligible for the Child Dental Benefit Schedule, there is a **low cost fee** of approximately \$26⁶ per child per course of care.

Victoria's public dental clinics provide free treatment for children who are:

- children 0-12 years who are dependents of current health care card or pension card holders
- children 2-17 years who are eligible for the Child Dental Benefits Schedule (CDBS) – currently receive Family Tax Benefit A or other relevant Australian Government payment
- children of refugee or asylum seekers

⁵ Victorian Health Information Surveillance System: Dental Ambulatory Care Sensitive Conditions (ACSC) rates for 0 to four year olds 2010-2012 (ACSC are conditions for which hospitalisation is considered to be avoidable through prevention and early disease management)

⁶ Check the DHSV website www.dhsv.org.au for the latest public fee schedule as changes do occur over time.

- children cared for by the Children, Youth and Families Division of the Department of Human Services
- Aboriginal and Torres Strait Islander children at the Royal Dental Hospital of Melbourne.

The services available for infants and children include:

- ☺ general check-ups and advice
- ☺ dental sealants to prevent decay
- ☺ cleaning
- ☺ fillings
- ☺ fluoride application

How parents can find their local community public dental service

Victoria has 80 public dental services located throughout the state. In many cases the service is offered through a local community health service.

You can advise parents to call Dental Health Services Victoria on 1300 360 054 (standard charges apply) or 1800 833 039 if living outside the Melbourne Metropolitan area.

Or see www.dhsv.org.au, and click the "clinic locations" tab.

Please refer to Appendix I for a list of all the public dental services in Victoria.

Remember children have priority access

When making an appointment children have "priority access". This means they will be offered the next available appointment for general care and will not be put on the general waiting list



Food tips for parents to promote healthy teeth

- ☺ For infants over six months of age who are not exclusively breast fed, tap water given in a sippy cup is the best drink. For infants aged six to 12 months tap water should first be boiled and cooled.
- ☺ The National Health and Medical Research Council 2013 Infant Feeding Guidelines do not recommend fruit juice for infants, it is not necessary and can harm teeth.
- ☺ Try to encourage 1.5 to 2 hour breaks between each meal or snack.
- ☺ Limit sweet foods between meals.
- ☺ Encourage children to drink tap water with and between meals from an early age.
- ☺ Milk is a healthy drink choice.

Note about milk

- For infants under 12 months, breast milk or infant formula should be the main drink. Cow's milk should not be given before a child is 12 months.
 - For infants aged 12 months to two years, full cream cow's milk can be offered.
 - For toddlers over two years, reduced or low fat milks can be given. Flavoured milks should be limited as they contain added sugar.
- ☺ Give children whole fruit rather than fruit juices that have a high concentration of sugars and are very acidic.
 - ☺ Foods such as vegetables and fresh fruit stimulate saliva flow, which counteracts the acid attack on teeth.
Prepare according to age appropriate needs (e.g. grating, mashing, pureeing, cutting into pieces).
 - ☺ Choose protein-rich snacks like cheese and unsweetened plain yoghurt to help strengthen tooth enamel.

It is a parent's role to decide which foods to offer children and when to offer food. From a young age, children can decide whether they will eat and how much they will eat (Department of Human Services 2008). Providing healthy choices gives children a good start to a healthy smile and creates good habits for the future.



See Australian Dietary Guidelines which can be found at www.eatforhealth.gov.au, along with other useful resources such as *Giving your baby the best start* (brochure) and *Healthy eating for children* (brochure).

Did you know children only need half an orange to get their daily requirement of vitamin C. But a glass of orange juice contains three or four oranges! Would a child eat that many oranges in one go?

Busting the fruit juice myth

Parents often think they are giving a healthy drink when they give fruit juice to their children. The truth is, children do not need juice or other sweet drinks to have a well-balanced diet.

Most parents know that sweet drinks like soft drinks should be avoided or limited. Very few realise that fruit juice can have as much sugar as soft drinks and can harm baby teeth.

What the experts say about fruit juices and fruit-flavoured drinks:



“Fruit juices and fruit-flavoured drinks have a substantial cariogenic (decay) potential because of their high sugar content and the way they are generally consumed. They are often used as a pacifying drink and often are a mainstay of a preschool child’s diet because of their high acceptance by children, low cost, and the belief by parents that they are nutritious”. (Tinanoff, Kanellis and Vargas 2002)

If parents decide to give juice to toddlers over 12 months of age, the following advice should be given:

- Juice should not be put in bottles or sippy cups.
- Juice should not be given at bed time.
- Juice should be limited to 120-180ml (about half a cup) per day for children aged over 12 months.

Juice is high in sugar which can lead to tooth decay. It is also quite acidic which can wear away tooth enamel, leaving children more vulnerable to decay. Whole fruit (stewed, mashed, chopped or sliced according to age) is much better than juice. It is a convenient and healthy snack that provides fibre which helps a child feel full and develops chewing skills.

Chapter Three

Walk the Talk, Helping Parents Take Control

This chapter outlines:

- how to engage parents in oral health messages that involve “talking with” not “talking at”
- how to build trust and motivation in parents
- the behaviour change cycle
- “What if?” analysing real life scenarios
- Reflection - how to include oral health in your work with families?

Engaging parents to protect their child's baby teeth

Many of your clients are families who face hardships and obstacles that you may not have experienced. These could include poor housing, low paid jobs or uncertain job security, discrimination or racial harassment from the wider community, loneliness as families are not present, loss of confidence and difficulties speaking English.

As staff of early parenting centres you can help vulnerable families to build their confidence and gain greater control over their children's health. Working with diverse community members requires particular attributes. A good relationship is one that builds the confidence and motivation of the family and helps them make the right choices for their child's wellbeing.



What are the characteristics of a staff member who forms good relationships with clients?



Your clients have a level of knowledge that needs to be respected. Oral health promotion is not about **telling** people, it is about including simple oral health messages in your discussions with families and supporting them to make positive changes.

You might be thinking:

- ☺ There's no time to discuss oral health as there are other more important issues.
- ☺ The topic just didn't come up.
- ☺ The mother wasn't in the right headspace. We needed to deal with other issues first.
- ☺ It's not relevant as we were talking about breast/bottle feeding routine and sleeping.
- ☺ Their baby doesn't have teeth yet so it is too early to bring up oral health.



As a staff member you might be thinking, "What does oral health have to do with us?"

Poor oral health doesn't just affect the mouth, it affects the general wellbeing of children. Tooth decay and pain can result in a child eating less and losing weight, it can be the cause of sleeplessness and affect speech development. It should be an important topic for all professionals who work with children.

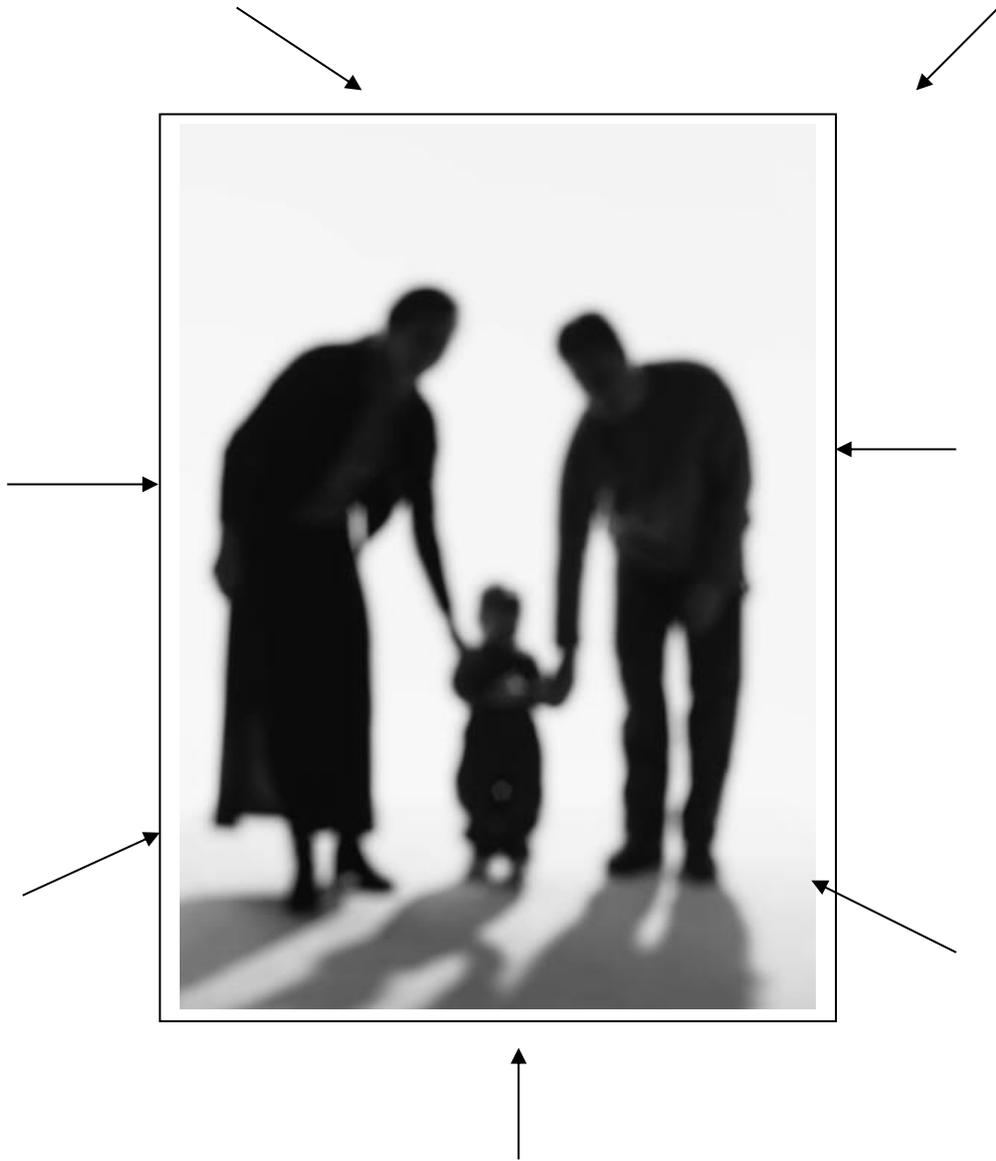
To have the greatest success in introducing oral health messages to your clients:

- ☺ Treat your family clients as equal partners.
- ☺ Respect their ideas and build on their experiences.
- ☺ Invite cooperation.
- ☺ Make it clear that you do not have all the answers.
- ☺ Welcome criticism, questioning, initiative, and trust.
- ☺ Defend the interests of those in greatest need.
- ☺ Learn together with families, and share their dreams. (Werner and Bower 2012).

Activity



A family has been referred to your residential program. Their daughter, aged two and a half, is said to be a fussy eater. In general how could you include oral health messages in your program of care for this family?



Write your ideas around the picture.



There are lots of ways you can include oral health messages within the residential or outreach parenting program.

You can include oral health during discussions about:	Possible topics for discussion:
Morning routine	brushing teeth after breakfast
Feeding and meal times	the link between sugar and tooth decay, the impact of grazing, breastfeeding and safe bottle feeding practices
Bathing routine	brushing teeth or playing with a toothbrush in the bath
Bed time routine	getting baby used to the bath-teeth clean-bedtime story-bed routine
Self-care	mums can transfer tooth decay causing bacteria to their infant or toddler if the mum has tooth decay herself
Development	infant can play with a soft toothbrush when sitting up in the bath, children should be assisted to brush their teeth properly until they can tie up their shoe laces
Sleeping and settling	brushing teeth makes the mouth feel clean, tooth decay can lead to sleeping problems, a baby should be put to bed without a bottle.

It is also a good idea to chat about oral health in the communal dining room and display posters that promote oral health.

Engaging parents in discussion



It is important to focus on the positives when introducing parents to new information about the care of their infant or child. Each family has its own set of skills and life knowledge which can be used in the course of the program. But sometimes their knowledge may be harmful or incorrect. For example, parents may have been brought up in a household where baby teeth were not seen as important and they might have adopted this point of view with their own children. In this situation it's important to acknowledge what the parents think and believe in a respectful way and try to carefully explain why baby teeth are important. We do this using the following steps

1. Building relationships



Try to win the trust of the family you are working with. Treat them as your equal and acknowledge their efforts to solve the problem at home. Also acknowledge that the early parenting centre does not have all the answers but working together will provide the best opportunity to come up with solutions. The role of staff is to work **with** families.

2. Gaining a clear picture of the problem



Work with the family in a partnership. This step is very much about understanding how the family makes sense of their world.

- Listen to what the family members are saying
- Summarise what the family member says.
for example "You say that..." , " Can I just summarise what you have been telling me?"
- Re-phrase to ensure clarity
for example "From what you have told me, these are your concerns. Is that right or have I misunderstood?", "If it's OK with you, just let me check that I have understood everything that we have been discussing so far."
- Define the problem – develop a clear picture of the problems the family are facing, then name the problems. Check if what you have stated is correct.

3. Supporting the clients to set manageable goals, how to achieve those goals and checking if progress has been made



Help the family member express what they wish to achieve. With consideration of their own skills and experience, help them decide on the steps they can take to reach their goal.

Steps should be small and incremental. Discuss how the family will recognise when they have achieved their goal but also what they could do if things are not working out as planned.

Qualities and skills of a person who can build good relations

- ☺ Ability to put yourself into the family's shoes
 - "I can see why you thought that"
 - "that is a difficult situation to be in"
- ☺ Be genuine in your concern for their situation
- ☺ Do not judge the family or use language or body language that shows your disapproval, for example
 - "You should know that."
 - "This is common knowledge."
 - "Caring parents don't do that."
 - "What you are suggesting is not a good idea."
 - "What made you do that?"
- ☺ Show respect through the words you use and your body language. Explain and ask permission before you discuss something with them.



The most important thing you can do is awaken your client's mind to their own possibilities and strengths, helping them to gain confidence in themselves so they can reach the goals they wish to achieve and improve their parenting skills.

Readiness for change

Sometimes, despite all your efforts, families do not appear to be progressing. At this point, it is important to avoid judging a family or seeing them as unmotivated. It is also very important not to just repeat advice as this won't work.



Have you ever thought
"I am just wasting my time here! The family is not listening to my advice?"

Changing a family's behaviour is a difficult process and can depend on your style. In some cases, the way you interact with clients may increase their resistance to change - remember what it takes to build a good relationship.

Research shows there are stages a person goes through before they commit to changing their behaviour. When working with families, early parenting staff must recognise what stage the family is at and assist them to move to the stage of commitment (Hall Gibbie and Lubman 2012).



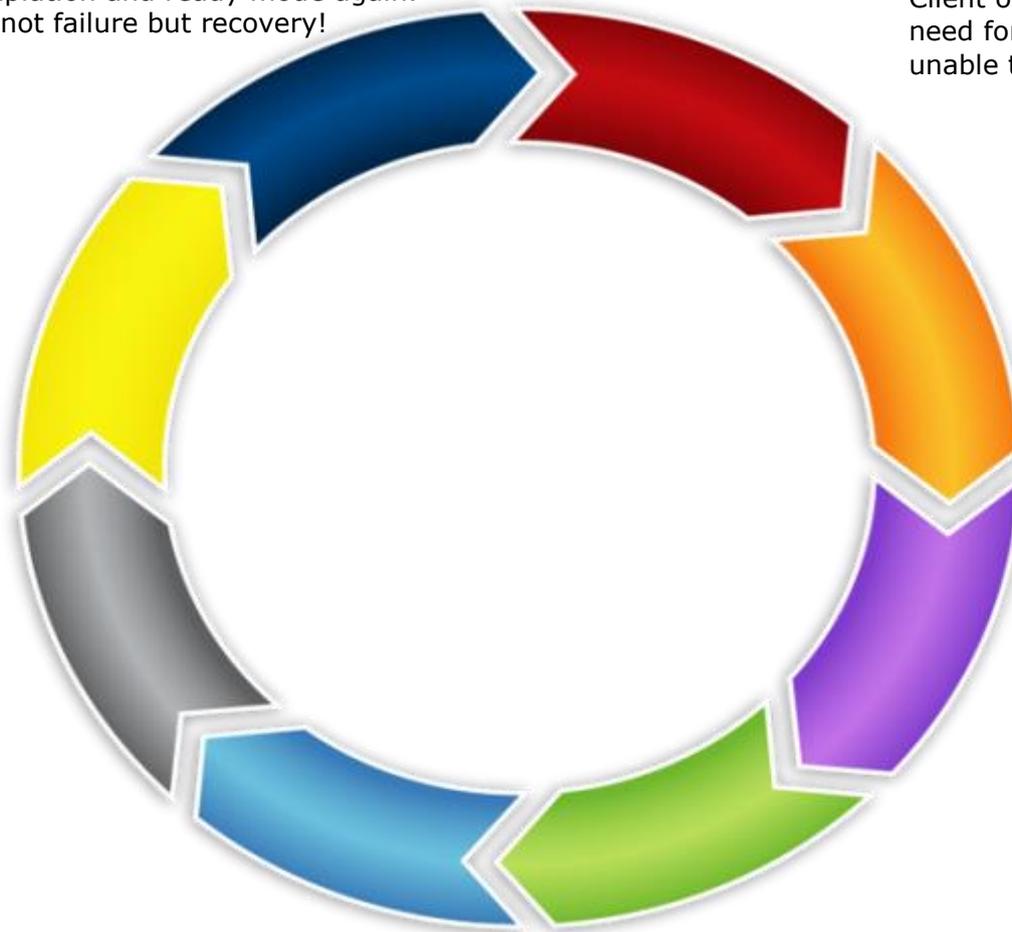
Look at Figure 9 and think about the stages of behaviour change. Do the stages match with your own experience?

Figure 9

The stages of the behaviour change cycle

5. Relapse and recovery

When making changes, being 100% successful all the time is not the norm. Clients and families need to support to get back on track, back into contemplation and ready mode again. This is not failure but recovery!



1. Precontemplation

Not ready –

Client or family does not see the need for change or unwilling or unable to take action to change.

2. Contemplation

Getting ready -

client or family is aware of the consequences of their behaviour and are beginning to think about how they can change.

3. Ready

Client or family is ready and are making preparations to change. They are ready to implement their plan for

4. Maintaining commitment

Client and family have made changes and are working to maintain the changes in their daily lives. Help families consider what they can do if they go back to old ways for a bit.



Now read through “stages of readiness” showing the stages of behaviour change in the context of what a family might say. Think about your own experience with families. Share a couple of your experiences that reflect the different stages of readiness the family was in and how you handled the situation. Discuss whether your responses were appropriate for the family’s stage of readiness (refer to the “role of staff member” column).

Stages of readiness in a family member		Role of staff member
1	<p>Not ready for making changes</p> <p>“This won’t work.”</p> <p>“I have too many other problems to solve.”</p> <p>“I do not have this piece of equipment at home.”</p> <p>“It will be too expensive to make these changes.”</p>	In a respectful way, try to open the family member’s understanding of the risks and problems associated with their current ways of doing things. Suggest some simple things that will reduce the harm.
2	<p>Getting ready</p> <p>Contemplating that change might be possible</p> <p>“I think we can do this.”</p> <p>“If I just change this it might be possible.”</p> <p>“I know it’s for the good of the baby so I will try.”</p>	<p>Weigh up the pros and cons with the family for making the change. Work with parents to tip the balance for change by:</p> <ul style="list-style-type: none"> • exploring and discussing any ambivalence to change and suggesting alternatives or breaking things down into smaller achievable steps • discussing reasons for change, why it might be good and risks of not changing • increasing parent’s confidence in their ability to change, acknowledging the skills and experience they have to use towards making changes.
3	<p>Ready</p> <p>Committed and ready to think about how to achieve the change</p> <p>“I want to do x, y and x...”</p> <p>“If I change x at home, it will be possible.”</p> <p>“I will talk to grandma and if she can do x...we will be right.”</p>	<p>Assist the family to set clear, realistic goals. Work together to plan the steps required to make change.</p> <p>Affirm what they hope to do by saying:</p> <ul style="list-style-type: none"> • “That sounds like a good idea.” • “I think that could work.”
4	<p>Maintaining commitment to the change</p> <p>“What can I do if I forget?”</p> <p>“What if this doesn’t work?”</p>	Help the family to identify and use strategies to prevent relapse.
5	<p>Relapse ++</p> <p>Learning from mistakes</p> <p>“I feel bad that we did not succeed this time, but I know what went wrong.”</p> <p>“Oh dear...we failed.”</p>	Work with the family to think about what they can do if they have not stuck to their plan. Work together to revitalise the plan without becoming demoralised.
++ Relapse should be seen as a normal part of the process. Encourage the family to see relapse as an opportunity to learn – “What can I do to improve this situation?”		

Adapted from Hall K, Gibbie T, Lubman D 2012, ‘Motivational Interviewing Techniques: facilitating behaviour change in the general practice setting’, *Australian Family Physician*, vol.41, no.9.

Working with parents to build confidence to take control

There are a lot of ways you can work with clients to understand their position and the problems they face. Motivating clients to make changes involves building their confidence to take control.

You can use the following techniques to help your clients build their confidence and motivation for change.



Trust and confidence building techniques

Consider the following examples of different techniques and statements and determine which ones might be useful for you in engaging parents in a discussion. These styles can be adapted to suit different situations⁷.

When gaining an insight into the family's situation, avoid using closed-ended questions. These are questions that limit the reply the person can give and often have yes or no answers.

Consider the difference between these two questions:

"Do you put the child to bed straight after dinner?"

"Can you tell me the routine you use to put your child to bed?"

Open-ended questions require more thought and more than a simple one-word answer. The person who answers has control over what they reveal and feels less like being "interrogated".

Use open-ended questions

Use open-ended questions in building a relationship and to gain a clear picture of the problem.

- "How do you encourage Jack to clean his teeth?"
- "Is there anything that concerns you about the health of your children's teeth?"
- "You've mentioned that you do not have time to clean your child's teeth. Can you help me understand more about this?"
- "What do you think might happen if you do not change your child's eating and tooth brushing habits?"

Besides the use of open ended questions there are other techniques you can use to work with clients to understand their position and the problems they face and to build their confidence to take control. But first you need to work out where your clients and families are at in terms of the behaviour change process. Once you recognize where clients are at use the following techniques to build and strengthen their motivation for change.

⁷ Adapted and used with permission from South Australian Dental Service Health Promotion Unit "Motivational Interviewing Examples"

Validate the client's position

Use statements that show the client you understand their experience, without being judgemental.

- "I can understand how you might feel that way about changing your child's diet."
- "I'm hearing that it is difficult for you to find time to brush your child's teeth in the morning."
- "Yes I can see it is difficult for you to encourage your child to drink water, when she has developed a strong taste for fizzy drinks."

Express empathy for the client's situation

Use statement that express empathy with your client as this will help build trust:

- "I understand that you are busy with your other children and it's hard to supervise tooth brushing."
- "I understand that it is hard for you to find time to prepare healthy snacks like chopped up fresh fruit for your child when you do shift work."
- "I know it's difficult to organise the other children early so you can get to your Maternal and Child Health appointment."
- "Taking care of young toddlers can be tiring and makes some of these goals hard to achieve."

Use reflection statements

Use statements that will help clients reflect on the information they have given you.

- "So you are saying that you do not have time to...?"
- "What I am hearing from you is that..."
- "It sounds as if you are not concerned as these are baby teeth. You know lots of people feel this way."
- "So if I understand you correctly, your biggest fear is..., is that correct?"

Highlight any discrepancies

If you notice that there is an inconsistency between what the client hopes to do and what they actually do, gently highlight this.

- "Although you said your daughter doesn't like drinking water so she prefers to drink cordial, when she smiles you can see that she has a number of decayed teeth"
- "On the one hand you want to set a routine but on the other you find it hard to set the rules that will assist developing a routine".

Explore what's good or not so good about the change

Assist the client to analyse their practice.

- "What are the three best reasons you can see for making this change?"
- "What do you think is good about putting baby to sleep with a bottle? What's not so good about it?"

Use scaling questions to help clients determine their level of commitment

This is a useful tool for you and your client to gauge level of commitment

- "How important is it to you, on a scale of 1 to 10 that you do...?"
- "If 10 is very confident and 1 is not very confident, how confident are you that you can develop a night time routine?"
- "Say you are a 5, what needs to happen for you to become an 8 or 9?"

Give advice with permission

Asking permission to provide ideas gives the client a sense of control and invites them to become an active, rather than passive, participant.

- "I would like to spend a few minutes talking about how you can include caring for your child's teeth as part of your daily routine, is that OK with you?"
- "I know of some strategies other people have found helpful, would you like to hear about some of these?"
- "Is it OK if I share some ideas about how to care for your toddler's teeth as part of their night settling routine?"

Support the client in taking action for themselves

Encourage the client when they have taken some positive steps, even if they are small ones.

- "From what you have just explained to me, you have come up with some great ideas to try at home".
- "You said you managed really well with last night's feeding session and that's a positive step towards reaching your goal."

These approaches can assist you in working with clients to build their confidence and commitment to change:

- Using open questions
- Validating the client's position
- Expressing empathy
- Using reflections
- Highlighting discrepancies
- Exploring what's good or not so good about the change
- Using scaling questions
- Giving advice, only with permission
- Supporting the client in their proactive decision-making.

My practice checklist

(Using trust and confidence building techniques when including oral health promotion with families in my care.)

Date started.....

	Building clients confidence to include oral health	Tick when used	How did you use this skill and what was the outcome? Would you change anything the next time you try it?
1	Using open questions		
2	Validating the client's position		
3	Expressing empathy		
4	Using reflections		
5	Exploring discrepancies		
6	Exploring what's good or not so good about the change		
7	Using scaling questions		
8	Giving advice, only with permission		
9	Supporting the client in their pro-active decision-making		

What if... - responding to real life situations



Explore how you would assist these families to address their concerns.

- Consider how ready the clients are to make a change.
- How you would go about building their confidence to include good oral health practices in the care of their children.

Case study 1

A refugee family from Burma has been referred to your centre. Mum and dad are in their early twenties and expecting their second baby (mum is 24 weeks pregnant). They are seeking help with their two-year-old daughter Ja Seng, who is unable to sleep by herself. They also seem pre-occupied with the present pregnancy and the planned delivery in a Melbourne hospital. Their two-year-old daughter was born in a Thai refugee camp.

Case Study 2

Sharon is 25 years old and is a long term drug-user who is now on methadone treatment. She has come to the unit with her 18-month-old little boy, Caleb, who has behavioural issues like outbursts of biting. Sharon is pregnant with her third child and is concerned about Caleb's behaviour with the new baby arriving soon.

Case study 3

Chandra is 18 months old. She and her family come from India. She is attending your centre with her maternal grandmother, mother and two-week-old baby brother. Chandra's mother has limited English, although she is fluent in other languages. Chandra's grandmother cannot speak English but tries very hard to get her meaning across. Sadly, the mother has refused the help of an interpreter because she is a little suspicious of interpreters. Chandra does not settle well at night. She seems fearful. You notice that Chandra's four top and bottom teeth are discoloured. Mum has expressed concern about her daughter's teeth but thinks that once they fall out the permanent teeth will be OK.

Case study 4

Skye is 16 years old. She has a one-month-old baby girl called Harper. She and her baby are living with a supportive family. She has been referred for sleep, settling and parenting skills. She has come in on her own. Her mother comes in on a daily basis but does not stay with her at night. Skye has mixed feelings, she wants to be a good mother and is afraid of failing but she finds the demands of parenthood difficult. Sometimes she wishes she could just go out with her friends to see a band once in a while.

Learning from other case studies

Jot down the key points about how other groups responded to their case study.

Case studies	Readiness for change	How to include oral health into the client's program	Comments
Case study 1			
Case study 2			
Case study 3			
Case study 4			

Chapter Four

Baby Bumps to Baby Teeth

This chapter outlines:

- the effects of pregnancy on teeth
- pregnancy and the importance of dental care for the newborn
- key messages for pregnant women
- public dental access for pregnant women
- reflecting on action to take to include oral health in childbirth and parenting education programs.

Pregnancy and the importance of dental health



Have you ever heard some mums or grandmothers say... “don’t go to the dentist when pregnant” or that “a tooth is lost with every pregnancy”?

Not so long ago, a woman’s oral health was put on hold during pregnancy. There were myths among community members and even professionals that it was unsafe for a woman to have dental treatment during pregnancy.



This myth is not backed by evidence.

Today we know that it is safe for a pregnant woman to have dental treatment during pregnancy (Dental Health Services Victoria 2012). As professionals, it’s important to let pregnant women know that it is safe to visit the dentist and undergo routine dental treatment. In some cases, x-rays, general anaesthetics and certain medications may not be recommended during the first three months of pregnancy.

During pregnancy women are busy preparing for their baby and can easily be preoccupied with many concerns. Caring for their teeth may not be seen as a priority. Evidence suggests that there is a relationship between oral health and pregnancy outcomes. It is important for professionals who work with pregnant women to encourage them to care for their teeth because it can benefit the health of the mother and baby.

There is some evidence that suggests an association, but it is not conclusive.

- A pregnant woman suffering from severe periodontitis⁸ could have a pre-term birth or a low birth weight baby (George, and Johnson et al 2010) (Offenbacher et al 2006).
- A more recent study of women regarded as having a high risk pregnancy⁹ showed a statistically significant association between the treatment of periodontitis and reduction in the risk of preterm birth (Kim, Lo and Pullin et al 2012).



⁸ See “periodontitis” in the list of common terms found at the beginning of this workbook

⁹ The term “high-risk pregnancy” describes a case where a pregnant woman has one or more factors that could put her or the fetus at risk for health problems. In general, a pregnancy may be considered high risk if the pregnant woman:

- is 35 years old or older
- is 17 years old or younger
- is underweight or overweight prior to becoming pregnant
- is pregnant with more than one fetus
- has gestational diabetes
- has gone into premature labor
- has had a premature baby

- Reports from New South Wales indicate that pregnant women with severe periodontal disease have about seven times greater risk of giving birth to preterm or low birth weight babies (NSW Health 2007).

The evidence available does not show that periodontal disease causes poor pregnancy outcomes, but the evidence linking periodontal disease to poor pregnancy outcomes is growing.

On the other hand, there is strong evidence to show that a pregnant woman with untreated tooth decay passes on the decay-causing bacteria *Mutans Streptococci* to her baby from as early as three months of age. Fathers are rarely involved in this transmission (Wan and Seow et al 2001).

Remember these key points:-

- Baby's teeth start developing in the first three months of pregnancy.
- Babies are born with no decay-causing bacteria in their mouth.
- Decay-causing bacteria are transferred from mother to baby.
- A baby's teeth are at risk from bacteria by the time the teeth first appear.

The best action a mother can take is to have any dental decay treated early in her pregnancy and to maintain good oral hygiene, particularly brushing teeth twice a day.

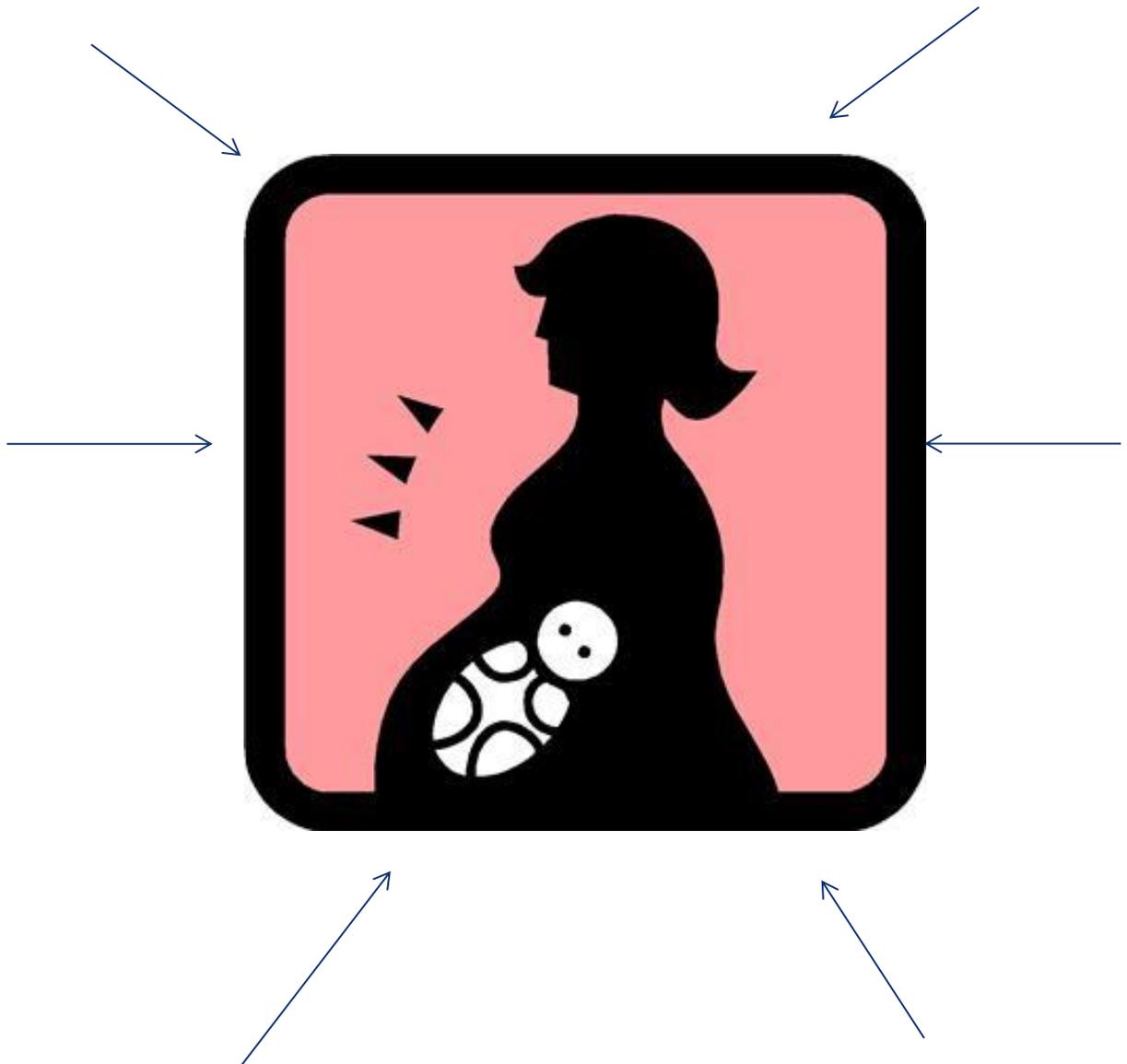
has had a baby with a birth defect, especially heart or genetic problems
has high blood pressure, heart disease, diabetes, lupus, asthma, a seizure disorder, or another longstanding medical problem.



Discuss the following question with the person sitting next to you and jot down your thoughts. "In what ways does pregnancy affect teeth and gums?"



Write your ideas around the picture.

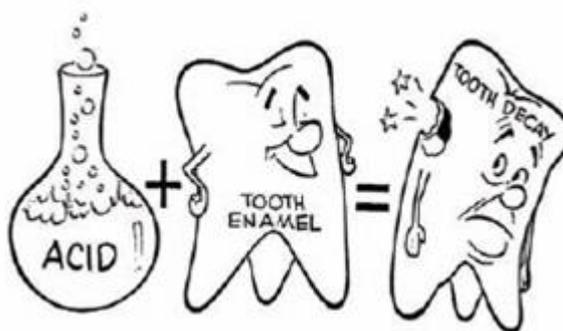


How does pregnancy affect teeth and gums?



During pregnancy, a woman becomes more vulnerable to teeth and gum problems due to a number of physiological changes.

- ☹️ Fluctuations in oestrogen and progesterone can weaken the blood vessels and tissues in the mouth which can reduce the mother's immune response. This can cause inflammation of the gums (gingivitis) or inflammation within the structures of the teeth (periodontitis).
- ☹️ Increases in oestrogen and progesterone during pregnancy affect the peridontium (the ligaments and bone that support the teeth). This may cause "tooth mobility" or loose teeth. If the woman does not have gum disease, this is a temporary condition and will not lead to tooth loss. If she is worried, it is always a good idea to see the dentist while she is pregnant (Silk and Douglass et al 2008).
- ☹️ The composition and production of saliva changes during pregnancy. Remember, saliva is an important protective factor for oral health. During pregnancy saliva composition changes making it less effective in helping teeth enamel recovering from an "acid attack". Although some pregnant women complain about producing lots of saliva, it is more common for pregnant women to have a dry mouth. Less saliva and changes in its composition increase the growth of decay-causing bacteria (Fehder 2008).
- ☹️ Pregnancy can result in food cravings and morning sickness. During pregnancy there is an increased need and usually an increased desire for food. Frequent snacking, especially on foods high in sugars and acids, causes more acid attacks which weaken the tooth enamel. If a pregnant woman is not looking after her oral health she may develop tooth decay and tooth erosion.



- ☹️ Morning sickness affects around half to two-thirds of all pregnant women to some degree, particularly in the first trimester. It involves nausea, vomiting and gastric reflux which can leave stomach acids in the mouth, coating the teeth. Over time the acid can dissolve or erode the tooth enamel and increase the risk of decay.

Common oral health problems in pregnancy



Hormonal changes, along with possible morning sickness and food cravings, mean pregnant women are at risk of oral health problems. Pregnant women can have treatment any time during pregnancy if it is deemed necessary and safe by their oral health professional. Visiting an oral health professional during pregnancy should not be postponed.

Gingivitis

This is the most common oral disease in pregnancy, affecting 60 to 75% of pregnant women. The gingiva (gums) become red, inflamed, tender and bleed easily when brushing. It can start in the second month of pregnancy and peaks at eight months. Gingivitis during pregnancy is worse if mothers have poor oral hygiene and there is a build-up of plaque on their teeth.

Often, because of tenderness and bleeding of the gums, pregnant women may stop brushing their teeth. But maintaining good oral hygiene is essential, even with gingivitis. Brushing teeth twice daily with a soft bristled brush and flossing prevents the build-up of plaque which can contribute to gingivitis. Having a dental check-up during pregnancy provides an opportunity for giving advice, professional cleaning and treatment of any decay (Silk and Douglass et al 2008).

Figure 12

Gingivitis swollen and red gums



Periodontitis

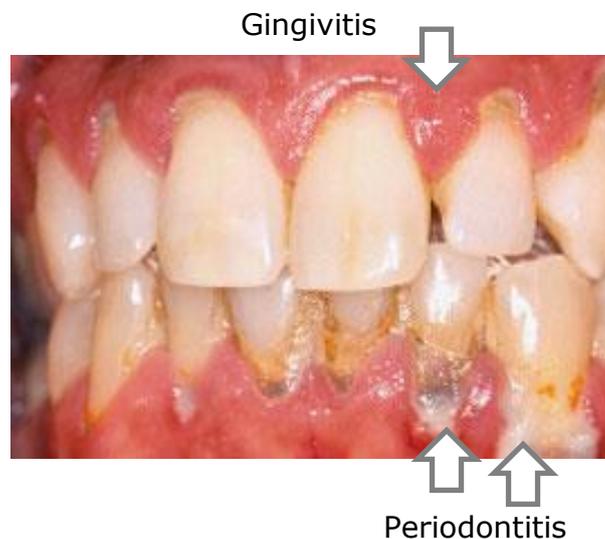
Periodontitis is advanced gum disease. It can occur if inflammation of the gums is not treated and the inflammation spreads to the ligaments and bone that support teeth. Gums pull away from the teeth and form spaces called “pockets” that become infected. If not treated, the bones, gums and tissue that support the teeth are destroyed. The teeth may eventually become loose and have to be removed.

- In severe cases, the body responds to the infection by becoming inflamed. This can possibly result in premature birth or a low birth weight baby.
- Periodontitis affects about 30% of women of child-bearing age. (Silk and Douglass et al 2008).

Periodontitis in its earliest stages may have no obvious symptoms, so it is important for pregnant women to have a dental check-up. If there are signs of periodontitis the dentist will remove the plaque and clean below the gum surface to halt the progress of the disease. It is important that pregnant women are diligent with their oral hygiene, cleaning teeth twice a day and flossing at night.

Figure 13

Moderate-severe periodontitis (including signs of gingivitis)



Looking after teeth during pregnancy



- Brushing is important to prevent the buildup of plaque. Pregnant women should:
 - Brush teeth and gums twice a day - in the morning and before going to sleep.
 - Use a soft, small-headed toothbrush and fluoride toothpaste.
- Some pregnant women find they gag while brushing their teeth. If brushing makes her feel sick, she can try:
 - Using a soft, small-headed toothbrush designed for children.
 - Brushing later in the morning when the gag reflex is reduced.
 - Concentrating on breathing gently as you clean the back teeth.
 - Brushing without toothpaste. Afterwards, smear fluoride toothpaste over the teeth with your finger and don't rinse. Return to brushing with fluoride toothpaste as soon as possible.
 - Having a dental check-up during pregnancy.
- Advice for pregnant woman with morning sickness:
 - Don't brush your teeth for at least 30 minutes after vomiting or reflux. This will give the enamel time to recover from the acid attack.
 - Instead, rinse your mouth with water after vomiting to help wash the acid away.
 - Smear some fluoride toothpaste on your teeth with your finger to refresh your mouth and help strengthen enamel.
 - Chew sugar-free gum to stimulate saliva which neutralises and washes away acid.
- Advice to a pregnant woman with food cravings:
 - Choose a wide variety of snacks that are low in sugar, fat and salt, and high in fibre.
 - Drink tap water.
 - Rinse your mouth with tap water between meals
 - Chew sugar-free gum to stimulate saliva which neutralises and washes away acid.



- Hormonal changes that occur during pregnancy affect the health of teeth and gums. Even if gums bleed, continue to brush gently with a toothbrush that has soft bristles.
- It is safe for a pregnant woman to see a dentist. Going for a check-up early in pregnancy gives time for any treatment that is needed.
- Wait for 30 minutes after vomiting before brushing teeth, rinse the mouth out with water in the meantime.
- If gagging occurs when brushing teeth, try brushing later in the morning when the gag reflex is not as strong.
- Treating dental decay during pregnancy can reduce the risk of infants developing early tooth decay.



Pregnant women who are eligible to use public dental services



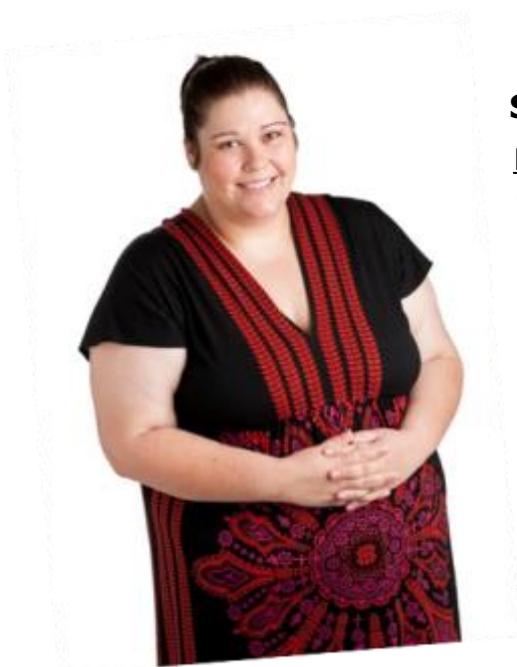
There are over 60 community dental clinics throughout metropolitan Melbourne and rural Victoria. Pregnant women are eligible to use these services if they are:

- Over 13 years of age and hold a current concession card, or are a dependant of a concession cardholder or are dependents of concession card holders
- Younger persons up to 18 years of age in “out-of-home care” provided by the Children, Youth and Families division of the Department of Human Services.
- Youth justice clients in custodial care, up to 18 years of age
- A refugee or asylum seeker.
- Some pregnant women under 17 years may be eligible under the Commonwealth Child Dental Benefit Schedule. Check the Department of Human Services website <http://www.humanservices.gov.au> and search for Child Dental Benefits Schedule.



If you are unsure check all the nearest local public dental service to check if your client is eligible (see Appendix I)

Victoria is the only state that allows pregnant women who are eligible to use the public dental service “priority access”.



So what is priority access?

Pregnant women who are eligible to use the public dental service have priority access. This means they will not be put on the general waiting list and will be given the next available appointment. There might still be a short wait until the next available appointment.

What does it cost to use the public dental service?

A small fee applies to adult pregnant women who Health Care Card or Pensioner Concession Card holders.

But some pregnant women may be entitled to **free** public dental care if they are:

- Aboriginal and Torres Strait Islander peoples (only applies at the Royal Dental Hospital Swanston Street Melbourne)
- Homeless or at risk of homelessness
- Younger persons under 18 years who are
 - a) health care or pension card holders or dependents of concession card holders
 - b) in "out-of-home care" provided by the Children, Youth and Families division of the Department of Human Services.
- Registered clients of a mental health or disability service supported by a letter of recommendation from their case manager or staff of special development school.
- All youth justice clients up to 18 years of age in custodial care
- Refugees or asylum seekers

Please note: fees may apply if specialist care is required.

Remind your client that she should check with the dental staff if she is eligible for free treatment.

How do I find the nearest public dental service for my client:

- Visit the Dental Health Services Victoria website, www.dhsv.org.au, and click on "Clinic locations".
- Call 9341 1000 if living in the Melbourne metropolitan areas or 1800 833 039 for rural areas
- Or refer to Appendix I (pages 89-94)

Remind women to let the receptionist know they are pregnant when they make an appointment.

Appendices

Appendix I – Public dental service sites in Victoria

You can locate the nearest community public dental services by postcode via the Dental Health Services Victoria web site www.dhsv.org.au or phone 1300 360 054, to locate the nearest public dental service

DEPARTMENT OF HEALTH REGION	LOCAL GOVERNMENT AREA	CLINIC NAME	DENTAL CLINIC PHYSICAL ADDRESS	Phone Contact
Grampians	Ararat	East Grampians Health Service	Girdlestone Street ARARAT VIC 3377	5352 9380
Grampians	Ballarat	Ballarat Health Services (Ballarat)	Cnr Sturt & Drummond Street NORTH BALLARAT VIC 3350	5320 4225
Grampians	Ballarat	Ballarat Health Services (Wendouree West)	Yuille Park Crn Hazel and Verbena Grove WENDOUREE VIC 3355	5320 4225
Northern	Banyule	Banyule Community Health Ltd	21 Alamein Road WEST HEIDELBERG VIC 3081	9450 2000
Gippsland	Bass Coast	Bass Coast Regional Health	235 Graham Street WONTHAGGI VIC 3995	5671 3268
Gippsland	Baw Baw	Latrobe Community Health Service (Warragul)	31-35 Gladstone St, WARRAGUL VIC 3820	5127 9189 / 1800242696
Hume	Benalla	Northeast Health (Benalla)	45 Coster Street BENALLA VIC 3672	5761 2201
Eastern	Boroondara	Inner East Community Health Service	7 Samarinda Avenue ASHBURTON VIC 3147	9885 6822
Western	Brimbank	ISIS Primary Care Ltd (Brimbank)	1 Andrea Street ST ALBANS VIC 3021	9296 1360
Loddon	Campaspe	Echuca Regional Health	Leichardt Street ECHUCA VIC 3564	5485 5820
Southern	Cardinia	Monash Health (Pakenham)	6B Henry St, PAKENHAM VIC 3810	5941 2644
Southern	Casey	Monash Health (Berwick)	28 Parkhill Drive BERWICK VIC 3806	8768 5141
Southern	Casey	Monash Health (Cranbourne)	140-154 Sladen St. CRANBOURNE VIC 3977	5990 6223

DEPARTMENT OF HEALTH REGION	LOCAL GOVERNMENT AREA	CLINIC NAME	DENTAL CLINIC PHYSICAL ADDRESS	Phone Contact
Loddon	Central Goldfields	Maryborough District Health Service	75-78 Clarendon Street MARYBOROUGH VIC 3465	5461 0388
Barwon	Colac-Otway	Colac Area Health	2-28 Connor Street COLAC VIC 3250	5232 5352
Northern	Darebin	Darebin Community Health Service (East Reservoir)	125 Blake Street EAST RESERVOIR VIC 3073	8470 1111
Northern	Darebin	Darebin Community Health Service (Northcote)	42 Separation Street NORTHCOTE VIC 3070	9403 12100
Northern	Darebin	Darebin Community Health Service (PANCH)	300 Bell Street PRESTON VIC 3072	9485 9060
Gippsland	East Gippsland	Bairnsdale Regional Health Service	Ross Street BAIRNSDALE VIC 3875	5152 0278
Gippsland	East Gippsland	Omeo District Health	12 Easton Street OMEO VIC 3898	5159 0100
Gippsland	East Gippsland	Orbost Regional Health	107 Boundary Road ORBOST VIC 3888	5154 6625
Gippsland	East Gippsland	Gippsland & East Gippsland Aboriginal Co-operative	37-53 Dalmahoy Street BAIRNSDALE VIC 3875	5150 0700
Southern	Frankston	Peninsula Health (Frankston)	Hastings Road FRANKSTON VIC 3199	9784 8184
Southern	Glen Eira	Bentleigh Bayside Community Health	Gardeners Road BENTLEIGH EAST VIC 3165	9575 5366
Barwon	Glenelg	Portland District Health	Bentinck Street PORTLAND VIC 3305	5521 0390
Loddon	Greater Bendigo	Bendigo Health Care Group	100 - 104 Barnard Street BENDIGO VIC 3552	5454 7994
Southern	Greater Dandenong	Monash Health (Dandenong)	122 Thomas Street DANDENONG VIC 3175	8792 2300
Southern	Greater Dandenong	Monash Health (Dandenong Hospital)	David St DANDENONG VIC 3175	9554 1000
Southern	Greater Dandenong	Monash Health (Springvale)	55 Buckingham Avenue SPRINGVALE VIC 3171	8558 9165
Barwon	Greater Geelong	Barwon Health (Belmont)	Cnr Reynolds & Colac Road BELMONT VIC 3216	5260 3710

DEPARTMENT OF HEALTH REGION	LOCAL GOVERNMENT AREA	CLINIC NAME	DENTAL CLINIC PHYSICAL ADDRESS	Phone Contact
Barwon	Greater Geelong	Barwon Health (Corio)	2 Gelibrand Street CORIO VIC 3214	5260 3827
Barwon	Greater Geelong	Barwon Health (Newcomb)	104-108 Bellarine Hwy NEWCOMB VIC 3219	5260 3540
Barwon	Greater Geelong	Wathaurong Aboriginal Cooperative Ltd	62 Morgan Street NORTH GEELONG VIC 3215	5277 3178
Hume	Greater Shepparton	Goulburn Valley Health (Shepparton)	Graham Street SHEPPARTON VIC 3630	5832 3050
Hume	Greater Shepparton	Rumbalara Aboriginal Co-operative Ltd	20 Rumbalara Road MOOROOPNA VIC 3629	5820 0080
Grampians	Hepburn	Hepburn Health Service (Daylesford)	Crn Hospital and Jameson Street DAYLESFORD VIC 3460	5348 2523
Grampians	Hepburn	Hepburn Health Service (Creswick)	1 Hill Street CRESWICK VIC 3363	5345 8165
Grampians	Hindmarsh (S)	West Wimmera Health Service	51 Nelson Street NHILL VIC 3418	5391 4266
Grampians	Hindmarsh (S)	Wimmera Health Care Group (Dimboola)	Lloyd Street DIMBOOLA VIC 3414	5363 7138
Western	Hobsons Bay	ISIS Primary Care Ltd (Hobsons Bay)	330 Queen Street ALTONA MEADOWS VIC 3028	8368 3000
Grampians	Horsham	Wimmera Health Care Group (Horsham)	Baillie Street HORSHAM VIC 3400	5381 9248
Northern	Hume	Dianella Community Health Ltd	35 Johnstone Street BROADMEADOWS VIC 3047	8345 5410
Northern	Hume	Sunbury Community Health Centre	12 - 28 Macedon St SUNBURY VIC 3429	9744 4455
Northern	Hume	Dianella Community Health Ltd	55 Craigieburn Road CRAIGIEBURN VIC 3064	9303 0571
Southern	Kingston	Central Bayside Community Health Services Ltd	335 Nepean Highway PARKDALE VIC 3195	8587 0350
Southern	Kingston	Southern Health (Kingston)	Cnr Heatherton & Warrigal Rd CHELTENHAM VIC 3192	9265 1294

DEPARTMENT OF HEALTH REGION	LOCAL GOVERNMENT AREA	CLINIC NAME	DENTAL CLINIC PHYSICAL ADDRESS	Phone Contact
Eastern	Knox	Knox Community Health Service Ltd	1063 Burwood Highway FERNTREE GULLY VIC 3156	9757 6201
Gippsland	Latrobe	Latrobe Community Health Service (Churchill)	11 Philip Parade CHURCHILL VIC 3842	5122 0444
Gippsland	Latrobe	Latrobe Community Health Service (Moe)	42 - 44 Fowler Street MOE VIC 3825	5127 9189
Gippsland	Latrobe	Latrobe Community Health Service (Morwell)	81-87 Buckley St, MORWELL VIC 3840	5127 9189
Loddon	Loddon	Boort District Health	2 Coutts Street BOORT VIC 3537	5451 5230
Western	Maribyrnong	Western Region Health Centre Ltd (Paisley St Footscray)	78 Paisley Street FOOTSCRAY VIC 3011	8398 4100
Western	Maribyrnong	Co Health	2 Geelong Rd, FOOTSCRAY VIC 3011	8398 4100
Eastern	Maroondah	EACH Ltd	124 Mt Dandenong Road RINGWOOD EAST VIC 3135	9259 4900
Western	Melbourne	Doutta Galla Community Health Service (Kensington)	6 Gower Street KENSINGTON VIC 3031	8378 1670
Western	Melbourne	Royal Children's Hospital	Department of Dentistry Flemington Road PARKVILLE VIC 3052	9345 5344
Western	Melbourne	Royal Dental Hospital Melbourne	720 Swanston Street CARLTON VIC 3053	1800 833 039 / Emergency 1300360054
Western	Melbourne	Ozanam Dental Clinic (Drug, Alcohol and Homeless Service)	268 Abbotsford St, NORTH MELBOURNE VIC 3187	9329 6733
Western	Melton	Djerriwarrh Health Services	Melton Health 195-209 Barries Road MELTON WEST VIC 3337	9747 7609
Loddon	Mildura	Mallee Track Health and Community Service	Britt Street OUYEN VIC 3490	5092 1121
Loddon	Mildura	Sunraysia Community Health Services Ltd	Cnr 13th Street & Deakin Avenue MILDURA VIC 3502	5021 0944

DEPARTMENT OF HEALTH REGION	LOCAL GOVERNMENT AREA	CLINIC NAME	DENTAL CLINIC PHYSICAL ADDRESS	Phone Contact
Hume	Mitchell	Seymour District Memorial Hospital	Bretonneaux Street SEYMOUR VIC 3660	5793 6126
Hume	Moira	Cobram Medical and Dental Centre	24 -32 Broadway St, COBRAM VIC 3644	582 3050
Eastern	Monash	MonashLink Community Health Service Ltd	Level 1, 9-15 Cooke Street CLAYTON VIC 3168	1300 654 889
Western	Moonee Valley	Doutta Galla Community Health Service (Niddrie)	3-15 Matthews Avenue NIDDRIE VIC 3042	8378 3566
Northern	Moreland	Merri Community Health Services Ltd	11 Glenlyon Road BRUNSWICK VIC 3056	9387 6711
Southern	Mornington Peninsula	Peninsula Health (Rosebud)	Rosebud Hospital 1527 Point Nepean Road ROSEBUD VIC 3939	5986 9200
Southern	Mornington Peninsula	Peninsula Health (Hastings)	185 High Street HASTINGS VIC 3915	5971 9120
Northern	Nillumbik	Nillumbik Community Health Service Ltd	917 Main Road ELTHAM VIC 3095	9431 1333
Grampians	Northern Grampians	East Wimmera Health Service	52 Northwestern Road ST ARNAUD VIC 3478	5477 2175
Southern	Port Phillip	Inner South Community Health Service Ltd (South Melbourne)	341 Coventry Street SOUTH MELBOURNE VIC 3205	9520 3177
Barwon	Queenscliffe	Bellarine Community Health Ltd	Nelson Road POINT LONSDALE VIC 3225	5258 0828
Barwon	Southern Grampians	Western District Health Service	Frances Hewett Community Centre 2 Roberts Street HAMILTON VIC 3300	5551 8347
Southern	Stonnington	Inner South Community Health Service Ltd (Prahran)	240 Malvern Road PRAHRAN VIC 3181	9520 3177
Loddon	Swan Hill	Swan Hill District Health	30 High Street SWAN HILL VIC 3585	5033 9336
Northern	Swan Hill	North Richmond Community Health Ltd (Robinvale)	128 Latje Rd ROBINVALE VIC 3549	5051 8160

DEPARTMENT OF HEALTH REGION	LOCAL GOVERNMENT AREA	CLINIC NAME	DENTAL CLINIC PHYSICAL ADDRESS	Phone Contact
Hume	Wangaratta	Northeast Health (Wangaratta)	24 Green Street WANGARATTA VIC 3677	5722 5325 5722 5116 (2 nd line)
Barwon	Warrnambool	South West Healthcare (Warrnambool)	26 Koroit Street WARRNAMBOOL VIC 3280	5564 4250
Barwon	Warrnambool	South West Healthcare (Gunditjmara)	3 Banyan St WARRNAMBOOL VIC 3280	5564334 (weekly Weds)
Gippsland	Wellington	Central Gippsland Health Service	155 Guthridge Parade SALE VIC 3850	5143 8618
Grampians	West Wimmera	Edenhope & District Memorial Hospital	128-133 Elizabeth Street EDENHOPE VIC 3318	5585 9800
Eastern	Whitehorse	Carrington Health (Whitehorse Community Health Service Ltd)	Level 2, 43 Carrington Road BOX HILL VIC 3128	9897 1792
Northern	Whittlesea	Plenty Valley Community Health Ltd (Epping)	187 Cooper Street EPPING VIC 3076	9409 8766
Northern	Whittlesea	Plenty Valley Community Health Ltd (Whittlesea)	40-42 Walnut St WHITTLESEA VIC 3757	9409 8766
Hume	Wodonga	Albury Wodonga Health	155 High Street WODONGA VIC 3690	02 6051 7925
Western	Wyndham	ISIS Primary Care Ltd (Wyndham)	117 - 129 Warringa Crescent HOPPERS CROSSING VIC 3029	8734 1400
Northern	Yarra	North Richmond Community Health Ltd (Nth Richmond)	23 Lennox Street RICHMOND NORTH VIC 3121	9420 1302
Northern	Yarra	North Richmond Community Health Ltd (Fitzroy)	75 Brunswick Street FITZROY VIC 3065	9411 3505
Northern	Yarra	Victorian Aboriginal Health Service	186 Nicholson St FITZROY VIC 3065	9419 3680
Eastern	Yarra Ranges	Inspiro Community Health	17 Clarke Street LILYDALE VIC 3140	9738 8801

Appendix II: Activities to do with parent's groups or children

1. What is that drink doing to your teeth?

Note: This activity may not be suitable for children with egg allergies.

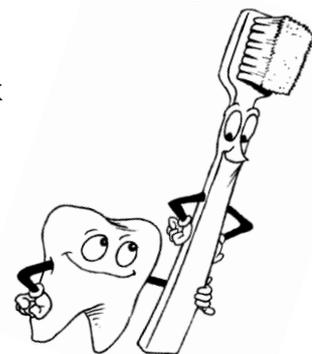
This is a great experiment to demonstrate the effect sugar in drinks has on teeth, and also provides the opportunity to discuss tooth decay, dental visits and the importance of drinking water and healthy eating.

What you will need:

4 hardboiled eggs (try to choose eggs with the whitest shells for best results)
1 glass of cola
1 glass of orange juice
1 glass of milk
1 glass of water
1 toothbrush
Toothpaste

What to do:

- A.** Place each of the hard boiled eggs in each of the glasses containing different drinks and leave to soak overnight. Have the parents/children discuss what they think will happen to each of the eggs when they return in the morning.
- B.** The next morning the shells of the eggs which have been soaked in the cola and orange juice will have turned brown, while those soaked in the milk and water will be unchanged. Explain that the staining has occurred only on the eggs soaked in the drinks that contain sugar. This represents the same effect that these drinks have on our teeth
- C.** Using the toothbrush and toothpaste have parents and/or children brush the dirty eggs as they would brush their teeth. The shells should turn back to white. If we brush our teeth twice a day after breakfast and before bedtime, this helps remove the plaque that builds up on our teeth due to sugary foods and drinks.
- D.** Ask parents or children to recall if they have seen brown stains on children's teeth. Point out that these brown stains are actually tooth decay and brushing teeth cannot remove the decay, a visit to the dentist is required. But brushing will protect other teeth from becoming decayed.
- E.** The best drinks for healthy teeth are water and plain milk



2. Cola soft drink demonstration – how much sugar

This is a fun demonstration to show what actually goes into making a cola or soft drink. And it might be a useful way to engage families about the hidden dangers of children regularly drinking soft drinks.

What you will need

A bowl of sugar
375 ml of soda water
Vinegar
Chocolate or caramel topping
Coffee
A tall glass or jug

Ask participants to guess how much sugar is in:

- A bottle of water?
- A can of soft drink (375 ml)?
- A bottle of soft drink (600 ml)?

What to do

1. To make a can of cola soft drink, pour 375 ml soda water into a large glass or jug. Add 9.5 teaspoons of sugar. Get the parents or children to count out the teaspoons as you add them. Then add a dash of vinegar (to represent acid), a dash of topping (to represent flavour and colour) and a spoon of coffee (to represent caffeine). Make an equal pile of sugar (9.5 teaspoons) next to the glass or jug (Note: This is a representation and is not all the real ingredients).
2. Discuss why soft drink is not a healthy drink choice.
3. Ask "Why would water be a better choice?"
4. Put healthy drink choices into a broader context
 - raise of issue of increase in the numbers of children with diabetes as a direct consequence of what children are eating and drinking today
 - tap water is safe to drink, and should be the main drink a child uses **throughout** the day



3. Eat Well activities for children

You can adapt these activities depending on the age of the children.

Activities:

Discussion points:

- Why is food important for your body?
- When should we eat for breakfast, lunch and dinner
- What are everyday foods?
- What are sometimes foods?
- Why are sweet, sticky foods bad for your teeth?
- How many serves of fruit and vegetables should you have everyday?

Sometimes versus everyday foods:

- Use supermarket catalogues and magazines to cut out pictures of sometimes and everyday foods.
- Stick the pictures onto two pieces of paper with the headings everyday and sometimes foods.
- Or make a collection of empty food packages/boxes (use plastic fruit and vegetable models).
- Ask the participants to separate them into two groups – sometimes and everyday foods.
- Make posters to put up at the service or take home to put on the fridge.
- Or have a variety of different food pictures with small pieces of Velcro on the back stuck onto a carpet board. Ask the participants to arrange them on the board into everyday and sometimes foods, or different food groups. (Pictures for this type of display can be sent electronically on request).

Role play:

- Shopping – use empty food packages and plastic/wooden fruit and vegetable models. Make money and shopping bags and ask the participants to make a shopping list and pretend to go to the supermarket.
- Healthy picnic – this can be done indoors or outdoors. Use a picnic rug, basket, plates and utensils, plastic/wooden foods and empty food packaging. Ask the children to sit down and serve themselves a healthy lunch from the picnic basket.

What's for dinner?

- Ask participants to cut out pictures of a variety of everyday foods to make up a meal for breakfast, lunch or dinner.
- Paste the pictures onto a paper plate.
- Discuss which foods are healthier for teeth.
- You could also use play dough and have the children make play dough models of different foods to make a healthy meal.

Body art:

- Ask the children to lie down on a large sheet of paper and trace around their body shape.
- Have them draw pictures or cut out pictures from magazines of things your body needs to stay healthy.
- Stick the pictures inside the shape of their body.

Food memory 1:

- Create a set of cards with matching food pictures on one side and plain colours on the other.
- Lay the cards out face down.
- Ask the children to turn over two cards at a time and try and find matching pairs (like playing Go Fish).
- This could also be modified to match up two everyday or sometimes foods, or two foods from the same food group.

Food memory 2:

- Display a number of different foods on a tray.
- Cover them up and ask the children to recall what was on the tray.
- Talk to the children about which are everyday and which are sometimes foods.
- To add a challenge, ask the children to only recall the everyday or sometimes foods.

Eat a rainbow:

- Draw the outline of a rainbow on a sheet of paper.
- Ask the children to think of or find pictures of foods of different colours of the rainbow.
- Cut out or draw these foods and paste them on to the outline to make the rainbow colourful.
- This could be done as a large wall mural, each child could be asked to draw a large picture of a different coloured food to be placed on the mural.
- You could also make a food colour book or set of cards.

Food alphabet:

- Think of a food for every letter of the alphabet.
- This could be done by going around the circle and asking each child to take a turn to think of something for the next letter of the alphabet. Add a memory component by having the children remember the foods the other children before them said.
- Or create an alphabet book or set of cards by having each child draw a picture of a food starting with an allocated letter to add to the book.

What food am I?

- One child has to choose a food.
- They can either give a brief description themselves or the group could ask them questions to guess what food they are thinking of.

Fruit and vegetable sticker charts

- Give each child a chart. Each time they bring fruit or vegetables as their snack to eat they get a sticker on their chart. Five stickers gets a special prize. This will encourage children to bring everyday foods especially fresh fruit and vegetables to snack on,

Other useful resources:

QLD Happy Teeth: You can download all resources (pamphlets, posters and detailed teachers manual with lots activity ideas, work sheets etc.)

from http://www.health.qld.gov.au/oralhealth/promo_programs/happy_teeth.asp

Appendix III: Useful websites

Better Health Channel www.betterhealth.vic.gov.au/

Colgate www.colgate.com.au/

Dental Health Services Victoria www.dhsv.org.au

Department of Health - Evidence based oral health promotion resource

[http://docs.health.vic.gov.au/docs/doc/Evidence-based-oral-health-promotion-resource-\(2011\)](http://docs.health.vic.gov.au/docs/doc/Evidence-based-oral-health-promotion-resource-(2011))

Department of Health - Fluoridation

<http://www.health.vic.gov.au/environment/fluoridation/>

Eat for Health

<http://www.eatforhealth.gov.au/>

Finding your local public dental service

<http://www.dhsv.org.au/clinic-locations/community-dental-clinics/>

Fluoride Guidelines: Australia

http://www.arcpoh.adelaide.edu.au/publications/journal/papers/arcpoh_2006c.pdf

Health Translations Online www.healthtranslations.vic.gov.au/

Kindergarten Parents of Victoria www.kpv.org.au/

Nutrition Australia www.nutritionaustralia.org

National Infant Feeding Guidelines www.nhmrc.gov.au/guidelines/publications/n56

National Dietary Guidelines www.nhmrc.gov.au/guidelines/publications/n55

National Oral Health Promotion Clearinghouse – for oral health promotion resources

i) Relating to children

http://www.adelaide.edu.au/oral-health-promotion/resources/public/htm_files/children.html

ii) Relating to pregnant women

http://www.adelaide.edu.au/oral-healthpromotion/resources/public/htm_files/maternal.html

ii) Oral health messages for the Australian public

<http://www.adelaide.edu.au/oral-health-promotion/publications/journal/paper/>

New Zealand Dental Association Oral Health Guide for Well Child Providers

http://www.healthysmiles.org.nz/assets/pdf/HealthySmilesBooklet-3rdEdition_sml.pdf

Parents Jury www.parentsjury.org.au

Raising Children's Network www.raisingchildren.net.au/

Victorian Health and Wellbeing Plan 2011-2015

<http://www.health.vic.gov.au/prevention/vphwplan>

Victorian Prevention and Health Promotion Achievement Program for early childhood education and care services

http://www.health.vic.gov.au/prevention/achieve_early_childhood.htm

National Maternal and Child Oral Health Resource Centre (USA)

<http://www.mchoralhealth.org/>

New South Wales Refugee Health Services

http://www.swslhd.nsw.gov.au/refugee/oral_health.html

<http://www.swslhd.nsw.gov.au/refugee/pdf/teeth/healthy-teeth-english.pdf>

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