

## Drink well

Healthy drink  
choices and  
oral health



### Key messages

- Babies receive their hydration from breastmilk or infant formula.
- If extra fluids are needed, small amounts of cooled boiled water can be given to breast fed babies from around 6 months or to formula fed babies at any time.
- Offer toddlers and children tap water as their regular drink (throughout the day and at meal and snack times).
- Plain unflavoured milk is a healthy drink choice for children 12 months and older.
- Introduce a cup at around 6 months, to teach babies the skill of sipping from a cup.
- Sweet drinks such as fruit juice and fruit drinks are not necessary or recommended for children under 12 months.
- Baby feeding bottles should only contain expressed breastmilk or infant formula.
- Phase out bottle use by 12 months of age.

## Rationale

Nearly half of all Australian children are consuming sugary drinks every day (Commonwealth of Australia, 2007). The reasons for this are varied, however, the amounts of sweet drinks consumed by families in Australia is a major concern.

Sweet drinks include: soft drinks, cordial, fruit juice, fruit drinks, sports drinks and energy drinks.

Marketing and advertising of sweet drinks has become big business. Promotions, sponsorship and free giveaways marketed at children have saturated many activities that they are involved in.

Toddlers and young children who are given sweet drinks to sip on throughout the day are constantly exposing their teeth to an acid attack which has implications for their oral health.

**Did you know ...**  
frequent drinking of sweet drinks significantly increases the risk of tooth decay for babies, toddlers and children.

It's also important to note that while sweet drinks contribute to tooth decay in children they also lead to a range of other problems including:

- excess weight gain
- small or reduced appetite
- fussy eating
- diarrhoea

(NHMRC, 2013, p.94)



Remember that other seemingly healthy drinks such as milkshakes and yoghurt drinks can contain large amounts of sugar. Sweet drinks are 'sometimes' drinks and should be consumed only occasionally.

**Did you know ...**  
Babies, toddlers and children do not need sweet drinks to have a healthy balanced diet.

## Evidence

Research has demonstrated that there is a strong association between sweet drinks and increased tooth decay (Armfield *et al*, 2013). Recent research evidence shows that babies prefer sweet tastes and this continues in to adulthood. In fact, the preference for sweetness in drinks and food for humans is evident regardless of age, race and culture (Drewnowski *et al*, 2012).

An Australian review of the evidence showed that 40.2 per cent of the children aged five to seven consume 1–2 sweet drinks per day (Armfield *et al*, 2013). Similarly, an NHMRC study showed that 47 per cent of children aged between 2 and 16 years of age consume sugar-sweetened beverages everyday (Commonwealth of Australia, 2007).

The Infant Feeding Guidelines states that ‘fruit juice and fruit drinks are not necessary or recommended for infants under 12 months.’ (NHMRC, 2013, p94). Drinks containing any sugar (natural or added) should be limited, especially between meals. Frequent consumption of sweet drinks, especially when consumed between meals, can contribute to tooth decay. Tooth decay develops when the sugar in the drink interacts with bacteria in the mouth which produces acid on the tooth surfaces. This acid causes damage to the tooth enamel, which is the start of the decay process (refer to the Baby teeth section on page 5 for information on the decay process).

Evidence suggests that consumption of soft drinks is associated with an increased risk of tooth decay and childhood obesity. The Australian Dietary Guidelines recommend drinking tap water, as fluoride added to most tap water helps to develop strong teeth and bones (NHMRC 2013). Most tap water in Victoria is fluoridated. Rain water and tank water does not contain fluoride.

See Figure 5 below for the water fluoridation map of Victoria. To find out if the water supply in your area is fluoridated go to <http://remote.health.vic.gov.au/fluoride/> and check the area postcode.

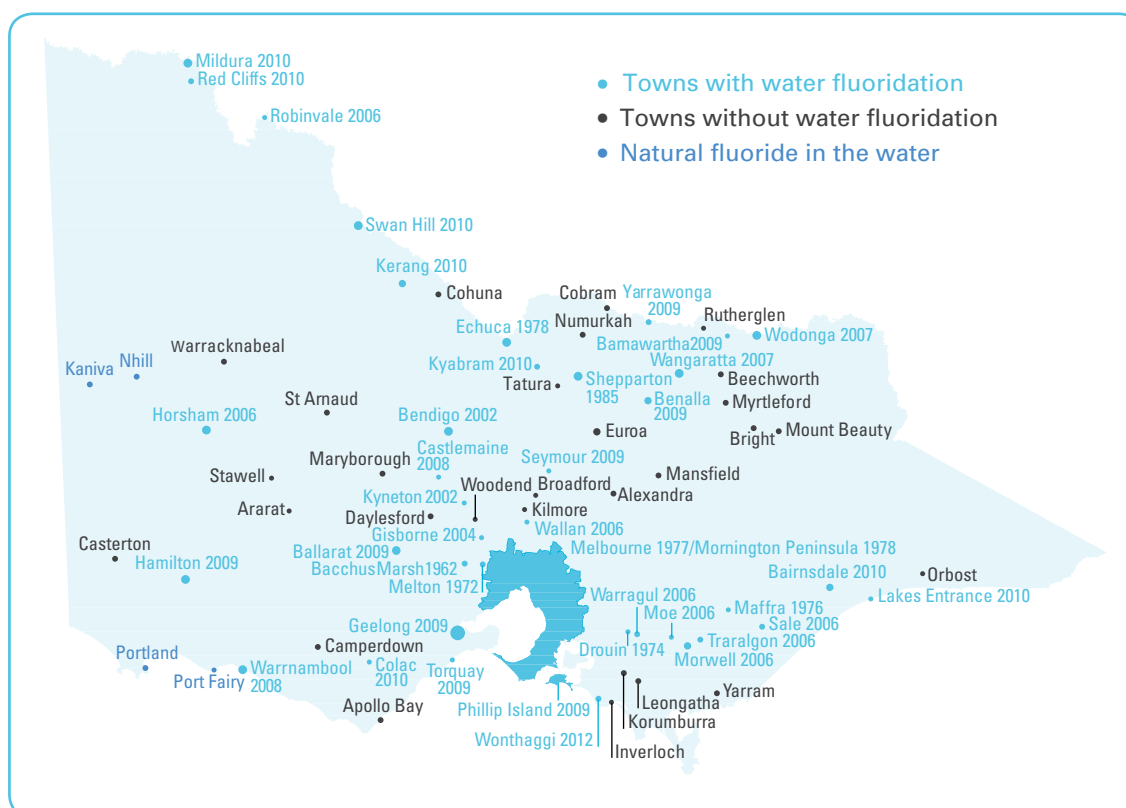


Figure 5 – Water fluoridation map of Victoria.

Source: Department of Health Victoria website at [www.health.vic.gov.au](http://www.health.vic.gov.au)

## Fluoride

Fluoride is a naturally occurring compound found in plants, rocks and at very low levels in almost all fresh water. It is used in many products related to oral health such as toothpastes and is also added to some of the drinking water in Victoria (Dental Health Services, 2014).

Fluoride is a compound found naturally in some water supplies and is added to some community water supplies. Fluoride provides added protection from tooth decay to both developing (under the gum) and erupted teeth (present in the mouth); and therefore provides benefits to individuals of all ages (Department of Health, 2011).

### What is water fluoridation?

Water fluoridation is the adjustment of the amount of fluoride found naturally in drinking water to an optimal level. This optimal level, as recommended by the World Health Organization (WHO), is one part per million (or 1 milligram / litre) and has benefits for oral health.

### Benefits of water fluoridation

Tooth decay occurs when bacteria from plaque breach the outer protective layer of the tooth enamel. Fluoride strengthens the mineral structure of the enamel, therefore providing resistance to acid attack. Fluoride also blocks the enzyme systems of bacteria found in plaque, resulting in the inability to convert sugars into acid (Department of Education and Early Childhood Development, 2010). Fluoride acts like a constant repair kit by repairing the early stages of tooth decay before it becomes permanent. Adding fluoride to drinking water does not change the taste or smell of water.

### Evidence that fluoride works

Many studies have confirmed that water fluoridation is effective in reducing tooth decay. The Australian Research Centre for Population Oral Health (ARCPOH) examined how effective water fluoridation is on the overall oral health of children across the states of Victoria, Queensland, Tasmania and South Australia. They found:

- Five to six year old children who have lived more than half their lives in areas of water fluoridation have 50 per cent less tooth decay in their baby teeth than children who have not lived in areas with water fluoridation.
- 12 to 13 year old children who have lived more than half their lives in areas with water fluoridation have 38 per cent less tooth decay in their adult teeth than children who have not lived in areas with water fluoridation (Department of Health, 2010).

### Non-fluoridated communities

Since 2010, 90 per cent of Victorians have had access to fluoridated drinking water. Water fluoridation is a key public health initiative; however it is not always available, as not all households have a piped water network or not all supplies can be fluoridated (Department of Health, 2011).

For people living in communities without water fluoridation, the consumption of foods and beverages processed in fluoridated areas will provide some benefit (Department of Health, 2011).

People who live in communities without fluoride can still protect their teeth against tooth decay by:

- Brushing their teeth along the gum line twice a day
- Drinking plenty of water everyday
- Having regular dental check-ups

(Dental Health Services, 2014)



For children who do not drink fluoridated tap water, or who are at high risk of developing tooth decay for any other reason, guidelines about toothpaste usage should be varied as needed, based on advice from an oral health professional (Dental Health Services Victoria, 2010). Families should talk to their dentist or other oral health professional about the right toothpaste to use in a non-fluoridated area.

#### Fluoride drops or tablets

Fluoride supplements in the form of drops or tablets to be chewed and/or swallowed should not be used.

#### Purchased bottled water

Bottled waters are useful when there is no access to tap water. However not all bottled waters contain fluoride.

#### Water filtration

Some filtration systems will remove fluoride from water.

#### Boiled tap water

Boiling or freezing water does not remove or destroy fluoride.  
(DHS 2009)

## Diet soft drinks

Diet versions of soft drinks may appear to be a healthy alternative but are acidic and can contribute to dental erosion (wearing away of the tooth enamel). Dental erosion is a major factor in dental decay and applies equally to sugar-sweetened or diet soft drinks, since their acidity is comparable (NHMRC, 2013).

### Did you know ...

Australian tap water is an ideal drink for the whole family – it's inexpensive, tastes good and is safe.

## Age appropriate drinks

Babies, toddlers and children who have sweet drinks regularly and frequently are at a high risk of tooth decay and tooth erosion. The natural sugar in fruit juice reacts the same way as added sugars when they come into contact with teeth. The following table describes age appropriate drink choices in detail and is based on the evidence and recommendations given in the Infant Feeding Guidelines and the Australian Dietary Guidelines. Babies under 12 months of age should be drinking either breastmilk or infant formula as their main drink. For toddlers and older children water and plain cow's milk are healthy drink choices. Sweet drinks are not recommended.

### Age: Birth – 6 months

**Water**

- Babies under 6 months of age receive their hydration from breastmilk or infant formula.
- Exclusively breastfed babies do not require additional fluids up to 6 months of age.
- For formula fed babies, cooled boiled tap water may be used if additional fluids are needed (NHMRC, 2012). Additional fluids may be required if the baby is unwell and advised by a health professional.

**Milk**

- For children younger than 12 months, breastmilk or infant formula should be the main drink.
- Children aged under 12 months should not drink cow's milk.

**Sweet Drinks**

- Sweet drinks are not recommended for babies, toddlers and children. These include: soft drinks, fruit juice, sports drinks, vitamin waters, cordials, fruit drinks and energy drinks.
- Fruit juice is not needed or recommended for infants under 12 months of age. Consumption may interfere with their intake of breast milk or infant formula as well as increase their risk of tooth decay.

**Other Drinks**

- Tea, herbal teas and coffee are also not recommended for children.

### Age: 6 – 12 months

**Water**

- From 6 months of age babies can drink cooled boiled tap water from a cup or 'sippy' cup.
- For formula fed babies, cooled boiled tap water may be used if additional fluids are needed (NHMRC, 2012). If dehydration is suspected, seek medical advice.

**Milk**

- For children younger than 12 months, breastmilk or infant formula should be the main drink.
- Children aged under 12 months should not drink cow's milk.

**Sweet Drinks**

- Sweet drinks are not recommended for babies, toddlers and children. These include: soft drinks, fruit juice, sports drinks, vitamin waters, cordials, fruit drinks and energy drinks.
- Fruit juice is not needed or recommended for infants under 12 months of age. Consumption may interfere with their intake of breast milk or infant formula as well as increase their risk of tooth decay.
- Fruit juices should not be considered as a replacement for fruit at any age. Babies, toddlers and children should be encouraged to eat whole fruits (age appropriately prepared) to meet their recommended daily fruit intake.

**Other Drinks**

- Tea, herbal teas and coffee are also not recommended for children.

**Age: 12 months and older**

- Water**
- Tap water is the best drink and should be the main drink for toddlers and children.
  - Offer tap water at meal times and throughout the day.
  - Fluoride in tap water protects teeth (where water supply is fluoridated).
  - Always encourage children to drink tap water when they are thirsty.
  - Water is a better thirst quencher than fruit juice and sweet drinks.
  - If living in a non-fluoridated community, drinking water is still healthier than drinking sweet drinks.
  - Fluoride tablets are not recommended.

- Milk**
- After twelve months of age, full fat cow's milk can be offered in a cup.
  - From two to five years reduced fat milk can be offered.
  - Milk is a good source of calcium which is needed for strong and healthy teeth.
  - For children over 12 months of age, too much milk can lead to poor appetite.
  - The Australian Guide to Healthy Eating recommends that children consume at least 1.5 to 2 servings daily from the dairy group. One glass of milk (250ml) represents one serve. Remember that flavoured milks contain sugar and should be limited.

- Sweet Drinks**
- Sweet drinks are not recommended for babies, toddlers and children. These include: soft drinks, fruit juice, sports drinks, vitamin waters, cordials, fruit drinks and energy drinks.
  - Sweet drinks should be limited or avoided, especially between meals.
  - Diet soft drinks are acidic and can contribute to tooth erosion. Limit diet soft drinks.
  - Some soft drinks and energy drinks contain caffeine which is also not recommended for children.
  - All types of fruit juice contain natural sugars and are highly acidic including freshly squeezed fruit juice. The natural sugar in fruit juice reacts the same way as added sugars when they come into contact with teeth. Fruit juices should not be considered as a replacement for fruit at any age. Babies, toddlers and children should be encouraged to eat whole fruits (age appropriately prepared) to meet their recommended daily fruit intake.
  - If juice is given it should be limited to 120 to 180ml per day for children aged over 12 months, it should not be given at bedtime and children should not be given juice in bottles or easily transportable covered cups that allow them to consume juice easily throughout the day.

- Other Drinks**
- Tea, herbal teas and coffee are also not recommended for children.





## How to promote healthy drinks to children

As an early childhood educator you can play a key role in encouraging children and families to drink well. Promoting healthy drinks (water and milk) at your service can be done in a variety of ways including learning experiences, family engagement and by sharing resources.

Challenges, myths and barriers to promoting healthy drinks:

As an early childhood educator there are some common challenges you may face when encouraging healthy drinks for babies, toddlers and children.

- Children may have a preference for sweet drinks.
- Families provide sweet drinks for children at your service or at home.
- Sweet drinks are advertised as being healthy, natural, organic, low fat and without any added sugar (eg. Fruit juice and fruit drinks).
- Sweet drinks can be very affordable for families.
- Big drink corporations market and advertise, sponsor children's activities and promote their products to children.

To help you overcome these we have provided intentional learning opportunities, everyday learning opportunities and resources to support you to encourage healthy drinking.

You can help support families to continue healthy habits at home so that babies, toddlers and children are consistently consuming healthy drinks, whether at your service or at home. Encourage parents through supportive discussions, family engagement activities and take home resources and materials such as newsletter inserts and factsheets.