

Your child's first teeth are as important as permanent teeth and require daily care. Also called primary, deciduous or baby teeth, they allow your child to chew and speak properly. They reserve the correct space in the gums for the eruption of permanent teeth. The primary molars need to be kept until the child is 10 to 12 years old.

Daily care is needed so your child does not lose primary teeth too early due to decay (caries). Caries in primary teeth is commonly caused by prolonged contact of sweet liquids, food acids or foods with the teeth.

A child who is taught to look after the primary teeth is more likely to look after the permanent teeth and enjoy an attractive smile and good oral health.

Early childhood caries (ECC)

An infant or young child with tooth decay, dental fillings or missing teeth due to decay has "early childhood caries" (ECC). The main risk factors for ECC are:

- settling the baby to sleep with a bottle of milk, sweet flavoured milk, cordial, soft drink, sports drink or fruit juice. Bacteria feed on the sugar in these drinks and form a sticky coating of plaque. Plaque acids eat into tooth enamel and cause decay
- night-time bottle feeding or frequent at-will breastfeeding past the age of about 12 months
- a high-sugar diet with frequent snacking or "grazing"
- certain oral health problems, such as dry mouth (lack of saliva) and mouth breathing
- lack of good brushing and flossing
- sleep-behaviour problems.

Regular dental check-ups are important for all children, especially if your child has risk factors for ECC.

Without treatment, your child may develop toothache, infection and dental abscess, and lose teeth too early.

Missing teeth in a young child can result in serious orthodontic problems of the permanent teeth, requiring extensive and costly treatment.

The risks of ECC are reduced with:

- thorough daily brushing and flossing
- a balanced diet and good nutrition
- low-fluoride toothpaste
- regular visits to the dentist.

Tips to prevent ECC

- Clean your child's teeth after breakfast and before bedtime.
- Offer a bottle of plain water or a plain dummy if your child likes to suck on something while settling to sleep. Do not dip a dummy in honey or other sweet syrups, jams or similar products.
- Teach your child to drink from a cup by about 12 months of age.
- Phase out bottle-feeding by the age of about 12 months.
- Encourage your child to drink water. As fruit juice contains a lot of sugar, limit it to one-half cup per day, preferably diluted. Give it at meal times only. Do not let the baby sip juice all day, as this can cause severe decay and tooth wear.
- Your child's first visit to a dentist should be at about one year of age.

THREE TYPES OF EARLY CHILDHOOD CARIES

Baby bottle caries: Baby bottle caries occurs when a child goes to sleep with a bottle containing milk, condensed or flavoured milk, fruit juice, cordial, sports drink, vitamin syrups or similar sweetened liquids.

Honey dummy caries: Honey dummy caries occurs when a baby dummy or pacifier is dipped into honey, jam, sugar, condensed milk, rosehip syrup, glycerine or other sweet products.

Frequent on-demand breastfeeding caries: Frequent on-demand breastfeeding of babies may lead to caries. This is also called "nursing mouth" and "nursing caries". Tooth destruction can be as severe as with baby bottle and honey dummy caries.

Breastfeeding is the best form of nutrition for babies. However, parents should be aware of risks to the baby's teeth if breastfeeding is especially frequent and on-demand after 12 months. This is particularly true for infants who sleep with the mother at night, nursing almost continuously. To prevent this type of caries, space out the feeds so the baby's mouth is not constantly bathed in breast milk. Wipe or brush the baby's teeth twice a day.

Oral hygiene for your baby

Oral hygiene starts at birth. Gently wipe your baby's gums with a warm, moistened face washer after every feed to remove food particles. This gets babies used to having their mouth cleansed. Once the primary teeth start to erupt, you may switch to a babies' toothbrush with a small head and soft, rounded bristles.

Brush teeth with plain water. See page 3 for brushing technique.

Sharing spoons or tasting baby's food with the same spoon can transfer decay-causing bacteria to your child. Keep a set of spoons for your baby's use only. Wash a dropped dummy under running tap water; don't clean it in your mouth.



Use a moistened face washer to gently clean your baby's gums after every feed.

Dental hygiene of parents

Children tend to imitate parents' behaviours. If nutrition, oral hygiene and dental care are important to you, they will be important to your child. Talk to your child about healthy teeth. A child who understands that teeth can last a lifetime is more likely to take care of them.

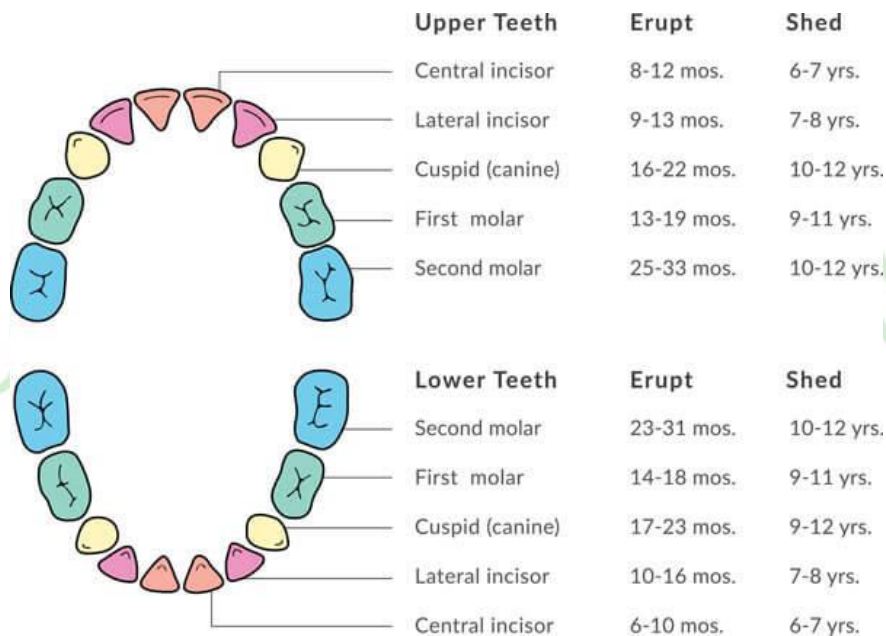
Supervision: Supervise your child's brushing and flossing until he or she can do it alone; this may be about age eight to 10. If they can tie their shoe laces properly, they can probably brush and floss.

- Teach your child to brush for two minutes twice a day. Encourage this for everyone in your family.
- Set a timer for at least two minutes. Most children brush for a minute or less, not long enough to remove plaque.
- While watching your child brush, point out any missed areas. Children usually forget to brush molars and the inner tooth surfaces that face the tongue.
- Teach your child to brush in a particular order to ensure cleaning of every tooth surface. For example, start with the molars on the left side of the lower jaw, work around to the right side, then move to the upper jaw in a similar pattern.
- Brushing of the tongue helps to remove decay-causing bacteria.

Eruption of primary teeth

Primary teeth start to form within the jawbone before birth.

A baby's first primary tooth usually erupts at about six months of age but can occur as early as birth or as late as the child's first birthday. The average child has a full set of 20 primary teeth by the age of about three years.



The diagram shows a top-down view of a baby's primary teeth, arranged in two rows: upper and lower. Each tooth is color-coded and labeled with its name. Lines connect the labels to the corresponding teeth. To the right of the diagram are two tables providing eruption and shedding schedules for each tooth type.

Upper Teeth	Erupt	Shed
Central incisor	8-12 mos.	6-7 yrs.
Lateral incisor	9-13 mos.	7-8 yrs.
Cuspid (canine)	16-22 mos.	10-12 yrs.
First molar	13-19 mos.	9-11 yrs.
Second molar	25-33 mos.	10-12 yrs.

Lower Teeth	Erupt	Shed
Second molar	23-31 mos.	10-12 yrs.
First molar	14-18 mos.	9-11 yrs.
Cuspid (canine)	17-23 mos.	9-12 yrs.
Lateral incisor	10-16 mos.	7-8 yrs.
Central incisor	6-10 mos.	6-7 yrs.

Pain and discomfort during teething

Most babies are irritable when new teeth break through the gums. Signs and symptoms of discomfort include:

- frequent crying and crankiness
- a slight fever
- reddened cheeks and drooling
- appetite loss and upset stomach
- more frequent soiled nappies
- sucking or gnawing on toys
- pulling of the ear on the same side as the erupting tooth.

Wash your hands, then gently rub your baby's gum with a clean finger, or give your baby a dummy, teething ring or wet washcloth to bite. Teething rings can be chilled before use to help manage gum swelling and pain. (Do NOT put teething rings in the freezer.)

Signs and symptoms may appear and disappear over several days. If fever persists, take your child to the doctor. Ask your dentist or pharmacist for advice before using any pain reliever or oral gel that contains a local anesthetic. These preparations are typically not suitable for babies younger than three months.

NEVER give aspirin to a baby or child.

Dental check-ups

Take your baby to the dentist for a checkup by his or her first birthday. This visit will be helpful because the dentist will be able to explain prevention of ECC.

Then have a check-up according to your dentist's recommendation, which is typically every six to 12 months. Children who have regular check-ups and are used to visiting the dentist have fewer dental problems. They are less likely to be afraid of dental treatments. During a check-up, the dentist may:

- assess your child's risk of dental problems such as decay, tooth wear or crooked teeth
- clean your child's teeth
- apply a fluoride treatment
- suggest how to manage dental health problems and prevent decay
- tell you how best to care for your child's teeth at home
- take a diagnostic X-ray film
- provide dental treatment
- refer your child to other dental specialists (such as a paediatric dentist or orthodontist).

Anxiety of dental visits

Some children feel anxious or frightened about visiting the dentist. Treat the appointment as an ordinary event rather than a "big deal". It may be helpful if your child sits on your lap during the check-up, instead of in the dental chair.

The dentist may examine your child lying across your knees, called the lap-to-lap position.

Young children may not understand what is happening and might resist the dentist's attempts to look at their teeth. Do not be concerned if your child cries, the dentist will understand this.

Make sure your child is not tired or ill on the day of the appointment. Morning appointments are often more suitable.

Brushing and Flossing Tips

Start brushing the teeth as soon as they erupt. Use a children's toothbrush with a small head and soft, rounded bristles. Preferably, a child's teeth should be brushed twice a day, after meals in the morning and evening.

Start flossing your child's teeth as soon as two teeth have erupted and are in side-by-side contact. Floss them once per day, preferably at the end of the day.

If flossing is difficult in your child, ask your dentist to show you how to do it.

Floss holders can be bought that make flossing easier for some children.

Children younger than about eight to 10 years cannot properly clean their own teeth, and parents have to supervise.

Choose a position where you can easily see your child's mouth

For example, sit your child on your lap or stand behind your child with the head tilted back slightly. Or lay the child down on your lap as you sit on a couch or bed.

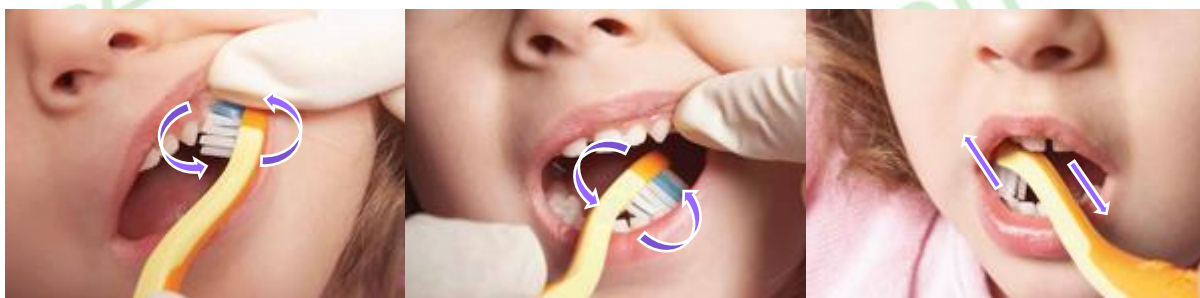
Plaque-disclosing tablets (available from your dentist or pharmacist) contain food dye that turns plaque pink or red.

These tablets can help you and your child to see if the brushing technique removes plaque from every tooth surface.



Flossing

Slide the floss between the teeth, and gently work it up and down, against the surfaces of each tooth. Do not snap the floss down between the teeth as it may cut into the gum and cause bleeding. After flossing, rinse with water, then brush (or brush then floss).



Good brushing technique

Move the brush gently in small circles to clean the front surfaces of your child's teeth.

To reach inner surfaces, tilt the toothbrush. Avoid side-to-side scrubbing, which can damage teeth and gums. Brush for about two minutes, if your child will tolerate it.

Brushing the back teeth

Brush the biting and grinding surfaces of back teeth with a gentle back-and-forth motion. Clean every surface of every tooth. Brush around the gum line of each tooth. Your dentist may have further advice on use of the toothbrush.

Toddler taming

If your toddler resists brushing or cannot sit still for two minutes, then try these suggestions:

- For toddlers who resist having a toothbrush in their mouth, put the brush into the bath and they will likely put it into their mouths themselves.

- Sing nursery rhymes or play a favourite song on the CD player as you brush.
- Distract the child with a toy or TV.
- Consider a battery-powered brush.
- Offer a reward. For example, you could put a sticker on a "star chart" each time your child allows you to brush for two minutes. Give your child a reward once the star chart is full of stickers, such as going somewhere special.

Encourage your preschooler to practise teeth cleaning (under your supervision) to instill good oral hygiene habits from an early age. Use a combination of "show and tell" methods. For example, you could brush your teeth as your child imitates you; then next time, tell your child how to brush while you watch. Your child may prefer one method to the other.

For toddlers reluctant to brush, encourage them to brush at the end of bath time when it is "their turn". When you wrap the child in a towel after the bath, you can quickly check that the brushing was done properly.

Make flossing and brushing as much fun as you can because arguments and tears will add to your child's resistance. Talk to your dentist if you need advice.

Introduce low-fluoride toothpaste when your child is about 18 months old.

Replace toothbrushes every three months or when bristles appear frayed. Frayed bristles do not effectively remove plaque and may scratch the gums.

Fissure sealants

Fissures are natural grooves in the grinding and biting surfaces of teeth, mostly in the molars and particularly the first permanent (six-year-old) molars. Trapped food and plaque within deep, narrow fissures can cause decay.

Fissure sealants are plastic coatings that seal and protect high-risk primary teeth and permanent teeth.

The application of a fissure sealant is painless and non-invasive.

Eruption of permanent teeth

The permanent teeth start to form deep inside the jawbone after the child is born. A permanent tooth erupts into the gap left by the shed primary tooth.

Permanent incisor teeth often have ridges or serrations along their cutting edges. These start to wear down once the teeth are used for biting.

The loss of primary teeth is usually painless, despite occasional minor bleeding from the gums.

Although your child may complain that chewing is difficult with loose or missing teeth (a temporary annoyance), ensure your child still has a healthy diet. Offer soft foods at dinner, like soups, minced meats or mashed vegetables. Keep up your child's brushing routine, and be gentle around any tender areas of gum.

Sometimes, a loose primary tooth will not fall out immediately. Avoid tactics such as yanking out the tooth with string. If the roots have not fully resorbed, a violent tug could snap the tooth and cause pain and infection.

Occasionally, a permanent tooth erupts before the primary tooth has shed. In most cases, the primary tooth will fall out within a few days or weeks. See the dentist if the primary tooth has not shed after two or three months. While most children feel excited about losing primary teeth and becoming a "big kid", some may feel anxious about loose teeth. Share fond memories of your own loss of primary teeth and celebrate each shed tooth with your child.

Children as old as eight may still have a full set of primary teeth. This is not unusual, but see your dentist if you are concerned.

Your dentist may suggest an X-ray examination to check the position of the unerupted teeth. In general, a child whose primary teeth erupted late has to wait longer for the eruption of permanent teeth. See your dentist if:

- the permanent teeth are crowded, crooked or misshapen, and your child has trouble biting or chewing
- the permanent teeth, especially the first permanent molars, show any surface discolouration
- your child complains these teeth are sensitive. If your child avoids eating some foods and complains during brushing, these teeth may have an enamel defect that needs early treatment.

Misaligned teeth that are hard to clean are at risk of decay, while a "bad bite" may quickly wear the teeth. If necessary, the dentist will refer your child to an orthodontist or other specialist.

Orthodontic appliance: Primary teeth maintain the space in the gums for the permanent teeth. If a primary tooth is lost too early (for example, due to ECC), adjacent teeth tend to drift and fill the gap. Then the permanent tooth could lose its place and erupt crookedly.

The dentist may suggest an orthodontic appliance that holds the space in the gum.

Common concerns

Sucking: This is a natural reflex in babies and young children. Most children lose interest in thumb sucking and dummies between two and four years of age.

Children who continue to suck after the permanent incisor teeth have erupted risk crooked permanent teeth, particularly if the sucking is forceful or frequent.

Also, speech defects may develop, especially with the "s" and "th" sounds.

Gently encourage your child to give up the sucking habit. For example, use a calendar, and add a star or sticker each day the child does not suck. Then offer a reward at the end of each week. Punishment is not effective, but rewards can be.

See the dentist for advice if your child cannot stop finger sucking by the end of the first year at school. In rare cases, referral to a child psychologist may be helpful.

Tooth grinding (bruxism): This is the involuntary clenching of the jaw and gnashing of teeth. Most people with bruxism grind their teeth while asleep. Unchecked, bruxism may cause headaches and toothaches, and can chip, break or prematurely wear the teeth. Damaged teeth are at risk of painful infections.

Emotional stress may cause grinding. If anything is bothering your child, try to solve the problem. For older children and adolescents, the dentist may suggest a custom-fitted appliance to be worn during sleep. It helps to prevent damage to the permanent teeth and gently discourages tooth grinding.

Healthy habits are important

Good nutrition is important for oral and dental health.

- Offer a diet high in fresh fruits and vegetables, wholegrain cereals, lean meats and dairy products.
- Limit sugary snacks such as lollies, fruit bars, muesli bars, biscuits, dried fruit, cordials, juices and soft drinks. Think of these foods as special treats not as everyday foods.
- A healthy diet does not make brushing and flossing unnecessary. Many healthy foods (such as fruit) contain high amounts of sugar. Starchy foods (such as bread, pasta and crackers) and milk products (including breast milk) can cause the growth of dental plaque. Daily flossing and brushing greatly reduce the risk of tooth decay.
- Xylitol is a natural sweetener from the white birch tree. Foods containing sugar substitutes appear to reduce decay-causing bacteria. Ask your dentist if xylitol products (such as gum, syrup or lozenges) would be useful in reducing your family's risk of tooth decay.
- If your child needs medicines, ask your doctor if they can be sugar free; alternative sweeteners can be used.

Fluoride strengthens teeth

Fluoride strengthens tooth enamel and protects against decay. Most capital cities in Australia add fluoride to the water supply at recommended levels.

Your dentist or local health department can tell you if your local water supply is fluoridated.

Not all water sources contain fluoride. Bottled water typically does not contain enough fluoride to offer protection against tooth decay. Some home water filters remove fluoride from tap water. Storage-tank water does not contain fluoride. Consult your dentist. If needed, the dentist may apply a fluoride "varnish" twice yearly, which has been proven to reduce childhood tooth decay.

Too much fluoride during tooth development can cause mild white flocking or mottling of permanent teeth ("enamel fluorosis"). A young child who regularly swallows adult-strength fluoride toothpaste instead of spitting it out may develop enamel fluorosis. To prevent it:

- choose a low-fluoride toothpaste for children younger than six years
- apply a pea-sized amount to the toothbrush and smear it into the bristles
- encourage your child to spit out the toothpaste after brushing.
- store toothpastes out of the child's reach. Some children love the taste of toothpaste and will eat it if they can.

If your child's permanent teeth have erupted mottled, your dentist can suggest treatment to improve their appearance.

Tooth Mousse™: As added protection, a protein-based cream derived from milk and containing calcium and phosphate (CPP-ACP) may help to strengthen and protect teeth. It is applied over the teeth and left in place. For older children, the active ingredients are found in a special chewing gum. Use only on the advice of your dentist.