

Chapter 8

Dental health

Introduction

A healthy mouth is important for a child to develop physically, socially and emotionally. There are many factors that contribute to dental health. This chapter covers a variety of topics to give you the tools and information to help children achieve a healthy smile.

This chapter contains information on the following topics:

- Importance of baby teeth
- Teething
- Oral hygiene care
- Pacifiers, thumb and finger sucking
- Early childhood caries (ECC)
- Healthy snacking for healthy teeth
- Sippy cups
- First dental visit
- Fluoride
- Guidelines for a toothbrushing program
- Children In Need Of Treatment (CINOT) program
- Healthy Smiles Ontario (HSO) program
- Ontario Works (OW) program for dependant children
- Dental safety
- Dental emergencies
- Dental programs
- Contact information and clinic locations

Tips for success

- Provide healthy snacks that do not contribute to tooth decay
- Understand the progression of teething and the difference between teething and illness
- Ensure a safe environment for children to prevent dental injuries
- Read stories to children about caring for teeth and visiting the dentist

Importance of baby teeth

Primary teeth or baby teeth are important for eating, smiling, talking and holding space for adult teeth. The first primary tooth will start to erupt into a child's mouth at six to ten months of age. This process is called teething and will end at two to three years of age. At the end of the eruption process, the child will have 20 primary teeth.

The primary teeth will start to naturally shed at six years of age. Some of the primary molars will remain in the child's mouth until 12 years of age. Keep in mind that all of these ages are guidelines only and children develop at their own pace.

Good dental habits, such as a healthy diet, cleaning the teeth and gums two times a day, and regular dental visits help prevent tooth decay and promote good general health.

Refer to Appendix 8 *Are baby teeth important?*

Teething

When a baby is born, they have a partially developed set of primary (baby) teeth under the gums waiting to erupt. At approximately six months of age this process begins and the first tooth starts to appear in the mouth. This is a natural process known as teething.

The teething process will be completed by two to three years of age, and can be uncomfortable at times. A baby may drool excessively, have red cheeks, swollen gums, difficulty sleeping, be cranky and irritable and/or want to put everything in their mouth.

Do not confuse teething with illness. Keep in mind that fever, rashes and diarrhea are not symptoms of teething. Refer to the section on *Signs of physical illness* in Chapter 3. If the baby has any of these symptoms, or remains cranky and irritable, ensure the child receives medical attention. Refer to the section on *Consent to obtain emergency medical care on behalf of the child* in Chapter 1.

Helping ease teething discomfort will help make you and the baby more comfortable. Babies massage their own gums by chewing on hard, smooth objects. Give them a teething ring, or a clean, wet cloth that has been chilled to chew on.

York Region Community and Health Services does not recommend homeopathic teething remedies as they are not regulated by the federal government and there is no safety or reliable information for these products. Avoid teething biscuits and wafers as they can contain sugars that cause tooth decay. Teething or numbing gels should also be avoided. If swallowed they can numb the throat and excessive consumption of the active ingredient benzocaine may lead to a serious health risk.

It is important to take good care of these new teeth. Some of them will remain in the mouth until age 12. Brushing teeth twice per day, flossing once per day, a healthy diet and regular dental visits all play important roles in keeping teeth cavity free. Refer to Appendix 8 *Teething: What can I expect?*

Oral hygiene care

Tooth decay and gum disease are caused by a sticky film, called plaque, which constantly forms on teeth and gums. Removal of this plaque with proper brushing and flossing on a daily basis is important in preventing dental disease. Establishing dental hygiene practices early, helps develop positive, lifelong dental habits and a healthy smile.

York Region Community and Health Services recommend that all children who attend childcare centres participate in a daily oral hygiene program. For more information, contact Dental Services at 905-895-4512 or toll free 1-800-735-6625.

Care of a child's mouth without teeth

Even though a baby does not have teeth, it does not mean that their mouth does not need to be cleaned. It's easy to keep a baby's mouth clean. Swabbing their mouth with a clean wet wash cloth after feedings will remove food residue and stimulate gums. Rubber finger toothbrushes are not recommended as they can slip off the finger and cause a choking hazard.

Lift the lip

Babies should have their teeth checked once a month by parents or caregivers. The purpose is to check for early signs of early childhood caries (ECC). If detected early it is much easier to treat. Consult with a dentist or dental hygienist on how to lift the baby's top lip.

In the early stages of ECC, the tooth can have a chalky appearance (usually along the gum line) that cannot be removed with toothbrushing. As the disease progresses, these areas can turn brown. In severe cases, the teeth will have dark brown spots and appear to have large holes or spaces between the teeth. If left untreated, the child may experience pain and/or infection.

Care of a child's mouth with teeth

Brushing

As soon as a child's first tooth erupts, it is susceptible to tooth decay. The first tooth will appear at approximately six months of age. At this time, a small soft toothbrush can be used to brush the teeth and should be done twice a day or following each meal. A smear of fluoridated toothpaste can be used to help prevent tooth decay. However, toothbrushing should always be supervised by an adult, the child should be encouraged to spit out and not swallow the paste.

Refer to the section on *Guidelines for a toothbrushing program* in this chapter.

Flossing

Flossing removes plaque and food debris between teeth where a toothbrush can not reach. This is a common area for gum disease and tooth decay to begin. If children have teeth that are tight together, their teeth should be flossed once a day to help prevent dental disease. However, flossing is not feasible at the child care centre. Daily flossing should be the responsibility of the parent.

Oral hygiene care tips

- If toothpaste is used, only a smear should be used. Encourage the child to spit out the residual from the paste.
- Use a toothbrush that is the correct size for the child's mouth
- Do not let the children share toothbrushes. The bacteria that cause dental decay can be spread from person to person.
- Store toothbrushes so they do not come in to contact with other brushes and are allowed to air dry
- Children model what they observe; set a good example
- Toothbrushing should be supervised by an adult until children are around seven years old. It is a skill that takes time to master.

Pacifiers, thumb and finger sucking

It is natural for babies to suck because it provides them comfort and security. Some babies have even been captured on ultrasound sucking their thumb while still in the womb.

If pacifiers are used incorrectly they can cause a variety of dental problems. Tooth decay can begin if they are dipped in sugar, honey or syrup. Changes to the shape of the palate and jaw can occur if a child is allowed to use a pacifier for extended periods of time. The risk of these changes increases with the amount of time a sucking habit is allowed throughout the day and the aggressiveness of the latch. Changes to the shape of the mouth can also affect the proper development of speech.

A child's need to suck begins to decrease around two years of age. The earlier a child discontinues the use of a pacifier or sucking their thumb, the less risk of affecting their teeth and jaws. If the habit persists beyond three years of age, encourage the parent to consult a dental professional to ensure there are no negative effects to the teeth and jaws.

It is easier to control the use of a pacifier than a thumb.

Rules to follow for the safe and proper use of pacifiers

Always

- Check daily for brittleness, cracks or tears, especially the nipple end (brittle nipples can be a choking hazard)
- Wash after each use with warm soapy water
- Check if the baby is hungry, tired or bored before giving them a pacifier

Never

- Clean by putting it in your own mouth
- Dip in sugar, honey or syrup; this can cause tooth decay
- Use a pacifier in place of feeding
- Tie a pacifier around the babies neck, as this can cause strangulation

Helpful tips on how to stop a child from their sucking habit

- Never scold a child for sucking, gently remind them to stop and offer praise when they are not sucking their thumb or pacifier
- Offer another form of security such as lots of encouragement and hugs, a teddy bear or blanket
- If the child is having difficulty stopping this habit, limit the amount of time they are allowed to have their pacifier or suck their thumb and slowly keep decreasing the amount of time until the habit is broken. Work closely with the parent and understand the parent's expectations.

Early childhood caries

Early childhood caries (ECC) is a disease of the primary teeth. It is defined as one or more cavities in the upper front teeth of a child three years of age or younger. Dental decay in the primary teeth is one of the most common diseases of childhood.

In the past it has been referred to as nursing bottle mouth, milk bottle mouth, baby bottle syndrome, nursing bottle caries and baby bottle tooth decay. The correct and current term is early childhood caries.

Decay is a result of frequent or prolonged exposure to acid/sugar on the teeth. Sugars (natural or refined) found in food and drinks, mix with dental plaque in the mouth to form acid. The acid will attack the hard outer layer of tooth surface called enamel, and over time will create a hole, leaving a cavity. The damage that sugars do will depend on how long they stay in the mouth and the frequency of use.

In the early stages of ECC, the tooth can have a chalky appearance that cannot be removed with toothbrushing. As the disease progresses, these areas can turn brown. In severe cases the teeth will have dark brown spots and appear to have large holes or spaces between the teeth.

Tooth decay in children is often extensive and may need to be treated while the child is sedated or in the hospital with the use of general anaesthetic. Treatment of this disease is costly both financially and emotionally. If left untreated, the child may experience pain and/or infection that can interfere with a child's ability to eat, drink, sleep, play and other areas of development.

ECC is preventable, and prevention must start early, because the decay process can begin as soon as a tooth erupts in the mouth.

Summary

- York Region Community and Health Services recommend that child care centres participate in a daily mouth care program
- Be aware of the disease and what it looks like so it can be prevented or identified at an early stage
- Do not allow children to fall asleep with a bottle of milk, juice or any form of sweetened drink. Allow water only in the bottle during sleep times
- Do not dip pacifiers in sugar, honey or syrup
- Lift the upper lip regularly to check for early signs of tooth decay
- Encourage the parent to have their child's teeth checked by a dental professional by one year of age

Refer to Appendix 8 *Early Childhood Tooth Decay, Is Snacking Healthy for My Child's Teeth? and Are Baby Teeth Important?*

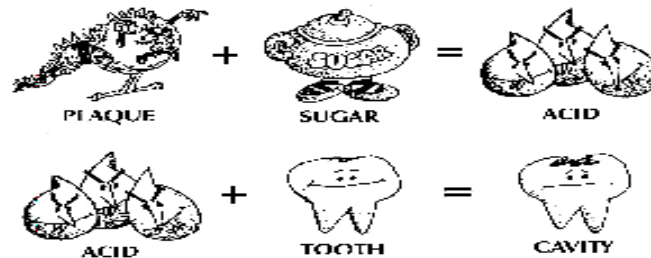
Healthy snacking for healthy teeth

Eating a variety of nutritious foods by following Canada's Food Guide to Healthy Eating is good for our general and dental health. A diet that contains many sugary snacks can lead to dental decay or cavities.

What is a cavity and how is it caused?

A cavity is a hole in the surface of a tooth. It starts off small, but gets larger over time if undetected or left untreated. Cavities begin to form when our teeth are attacked by acid. Acid forms when sugar from our food mixes with bacteria in our mouth. The acid breaks down the hard outer layer of the tooth called "enamel", resulting in tooth decay.

The Process of Tooth Decay



When choosing snacks that are good for teeth, there are three things to consider:

1. How much sugar is in the food?
Always check the label and see if anything ending in 'ose' is included in the ingredients. 'Ose' means sugar. Honey, corn syrup and molasses are also sugars. The sugar in food reacts with bacteria naturally present in the mouth and produces an acid. This acid eats away at the enamel or outer layer of the tooth over time and can cause decay.
2. How sticky is the food?
If food sticks to the teeth, it means the sugar in the food is in contact with the tooth for a longer period of time (e.g., fruit leather, chewy fruit snacks and raisins). This makes the tooth more susceptible to decay.
3. How frequently is the food being eaten?
The number of times a child is eating and drinking throughout the day plays a part in the decay process. It is important to limit sweet food and drinks to meal and snack times so the exposure to sugars is reduced. A child that has food and drinks limited to meal and snack times is being exposed to sugar less often than a child allowed to eat and drink whenever they want.

Examples of healthy snacks for good oral health would include fruits, vegetables, cheese, rice cakes, eggs, yogurt and pizza to name a few. Refer to Appendix 8 *Is snacking healthy for my child's teeth?* and Chapter 6 *Healthy eating*.

Sippy cups

The sippy cup was developed for children who have outgrown the bottle, but are too young to handle a regular cup on their own. It has been around for many years. However, there has been a recent link between sippy cups and early childhood caries.

It's not the cup itself that is responsible for tooth decay, but the type of liquid that goes into the cup. The cups are being used as if they were bottles allowing the child to drink milk, juice and sugary liquids throughout the day, sometimes even while sleeping. Never provide pop, sport drinks, fruit flavoured drinks or sweetened tea in a sippy cup. The children's teeth are being bathed in these sugary liquids every time they sip from the cup.

Sugar is one of the many factors that can cause tooth decay. Whether the sugar is natural or refined, it does the same damage when it comes to the teeth. Outside of meal and snack times, York Region Community and Health Services recommend offering water only in the cup. This will allow the child to quench their thirst and prevent the constant sugar intake. Provide milk and juice during meal or snack times only.

Summary

- Provide **only water** in the sippy cup outside of meal and snack times. Limit juice and milk to meal and snack times.
- Use sippy cups as a transitional step, not a long term solution
- Disassemble and properly clean the cup at least once a day to prevent the growth of microorganisms (bacteria, virus, fungus) that can cause illness

First dental visit

A child's first dental visit should be scheduled within six months of the eruption of the first tooth or by one year of age. It is a short appointment that involves a visual check of the child's teeth, assessment of plaque control and oral hygiene instruction. The purpose of the first dental visit is to prevent problems before they start, answer any questions and establish a positive attitude towards dental health. Don't wait for an emergency to schedule a child's first visit. You want the first experience to be a positive one.

The first dental visit can be provided by a Registered Dental Hygienist from York Region Community and Health Services. It can be done in the child care centre or at one of our three convenient clinic locations. Contact Dental Services at 905-895-4512 or toll free 1-800-735-6625 to schedule dental screening for your centre or direct the parent to contact us for an appointment in one of our clinics.

Refer to the section on *Dental Screening* and *Clinic Locations* in this chapter.

Fluoride

Fluoride is a mineral found in nature, which helps strengthen enamel, the outer layer of the tooth. It can be found in a variety of sources such as toothpaste, professional topical fluoride treatments, fluoride supplements, some community drinking water and it occurs naturally in some water wells. The Canadian Dental Association (CDA) supports the appropriate use of fluoride in the prevention of dental caries (tooth decay) as one of the most successful preventive health measures in the history of health care.

Recommendations for the use of fluoridated toothpaste at a child care centre:

- Children should be supervised by an adult while brushing
- Use only a smear of toothpaste
- Do not allow children to swallow toothpaste
- Encourage children to rinse and spit after brushing

Refer to Appendix 8 *Fluoride Use Update: Information for parents and health professionals*.

Guidelines for a toothbrushing program

Tooth decay is caused by a sticky film, called plaque, which constantly forms on our teeth. Bacteria in plaque produce acids, which dissolve the enamel surfaces of a tooth and cause cavities. One way to help prevent decay is to remove plaque build-up with proper toothbrushing.

Child care providers wishing to start a toothbrushing program may find these guidelines helpful.

Frequency: Children should brush their teeth after eating snacks or lunch

Supplies: Necessary supplies include multi-tufted toothbrushes with small heads and soft bristles, individual storage containers that can be easily cleaned and disinfected using a low level disinfection solution and fluoridated toothpaste (optional)

Method:

1. Each child must have their own toothbrush and a plastic cup or disposable paper cup and storage container
2. An indelible marker or tape writer should be used to put the child's name on their toothbrush
3. Toothpaste **is not essential** for brushing. If toothpaste is used, each child should have their own tube labelled with their name. This will prevent microorganisms from being spread from one toothbrush to the next, as could occur when a large tube of paste is used for all children. Only a **smear** of fluoride-containing toothpaste should be used. Children should be encouraged to spit out all toothpaste.
4. Young children who are brushing on their own should use the scrub technique. The teeth are held in the biting position and the brush is moved in circles with as large a diameter as possible to clean the outer surfaces of the teeth and gums. The biting surfaces and insides of the teeth can be cleaned with a back and forth motion.
5. Children up to seven years of age should be supervised as they brush in order to ensure all tooth surfaces are reached, and that only a **smear** of fluoridated toothpaste is used. They should also be encouraged to spit out the excess toothpaste before rinsing, to reduce the amount that could be swallowed.
6. Adults who are brushing a child's teeth should stand behind the child making sure to support the head. In this case, the roll technique should be used in order to avoid damaging delicate gum tissue. The brush is placed gently onto the gum line at a 45° angle, and rolled gently away from the gums. This technique should be performed in a logical sequence; cleaning all of the outside surfaces, the inside surfaces and then the chewing surfaces of the teeth.

Storage: After brushing, rinse the toothbrush under running water. When storing toothbrushes or toothpaste, make sure each child has their own individual container. This container should be easy to clean and disinfect, and will keep toothbrushes from touching each other. Refer to the section on *Toiletry and personal items* in Chapter 2. Here are some examples:

- Brushes can be stored in individual cups and allowed to air dry. These cups must not be used for rinsing, and should be labelled with the child's name.
- Brushes can be stored in toothbrush holders that cover the bristles only

Cleaning: Containers used to store toothbrushing articles are to be cleaned and disinfected weekly using a mechanical dishwasher or a low level disinfection solution. Refer to the section on *Keeping your centre clean* in Chapter 2. Microorganisms on the toothbrushes are effectively reduced if they are submerged in antiseptic mouth rinse for 20 minutes after each use.

Toothbrush Replacement:

The general rule is that toothbrushes should be replaced every three months, or when a child has just recovered from cold or flu.

Children in need of treatment (CINOT) program

CINOT is a program available to children that are in need of emergency or essential dental treatment. This program is sponsored jointly by the Ministry of Health Promotion and local municipalities. It is administered by York Region Community and Health Services.

If you suspect a child in your centre may be in need of dental care, inform the parent. If the parent indicates that it would be a financial hardship for their family to cover the cost of dental treatment, direct them to contact York Region Community and Health Services. We will schedule a dental screening for the child and do everything we can to help them get needed dental treatment.

Refer to the section on *Contact information* in this chapter.

To be eligible for the CINOT program the child must be:

- A resident of Ontario
- Between the ages of birth to the end of age 17
- In need of emergency or essential care (criteria set out by the Ministry of Health Promotion)
- From a family without dental insurance or any other form of dental coverage
- Part of a family where the cost of dental treatment would create a financial hardship
- Screened by a York Region Health Services Registered Dental Hygienist

Covered Services:

- Routine treatment such as exams, x-rays, fillings and extractions
- Preventive services such as cleanings, fluoride, and pit and fissure sealants
- Some procedures require authorization from Health Services before the dentist can perform treatment (e.g., root canal therapy)

Refer to Appendix 8 *CINOT* fact sheets in English, Chinese and Punjabi.

Healthy Smiles Ontario

Good oral health is important to overall health. Yet, for some, regular dental care may not be affordable. Healthy Smiles Ontario is a program for children 17 and under who do not have access to any form of dental coverage. If eligible, children will receive regular dental services at no cost.

Refer to the section on *Contact information* in this chapter.

What services are covered?

The Healthy Smiles Ontario program covers regular visits to a licensed dental care provider, such as a dentist or dental hygienist, to establish and maintain good oral health. It covers a full range of preventive and early treatment dental services including:

- Check-ups
- Cleaning
- Fillings
- X-rays and more.

Who is eligible?

Children 17 and under may be eligible if:

- They are residents of Ontario;
- They are members of a household with an Adjusted Family Net Income of \$20,000 per year or below; and,
- They do not have access to any form of dental coverage (including other government programs, such as Ontario Works).

Parents/Guardians will need to show specific documents during the enrolment process. Refer to Appendix 8 for further information

Dental Safety

Creating a safe environment for children to play and learn is important for a variety of reasons. One important reason is to prevent dental injuries. Dental injuries are permanent, painful, and costly to repair financially and emotionally. Like most things in dentistry, prevention is the key.

Rules for tooth safety

Children should be encouraged to follow these rules for tooth safety:

- Avoid placing sharp objects in their mouths
- Not open objects with their teeth (e.g., bobby pins, cans, etc.)
- Not push or shove especially around water fountains and stairs
- Wear mouth protection when playing sports

Dental emergencies

Unfortunately, accidents and emergencies can happen. Knowing what to do in the event of a dental emergency can mean the difference between saving and losing a tooth.

Dental first aid

Toothache	Rinse the mouth vigorously with warm water to clean out debris. Use dental floss to remove any food that might be trapped within the cavity (especially between the teeth). If swelling is present, place cold compresses to the outside of the cheek. Do not use heat. Do not place aspirin on tooth or gum tissue of aching tooth. Call the child's parent and ensure the child is seen by a dentist immediately.
Knocked-out tooth	Pick up the tooth by the crown only and place tooth in milk, saline, saliva or water. Do not clean tooth. Call the child's parent and ensure the child is seen by a dentist immediately. The tooth must be taken to the dental appointment.
Broken or bumped tooth	Try to clean dirt or debris from injured area with warm water. Check for broken tooth chips or fragments in lip and cheeks. Place cold compresses on face next to injured tooth to minimize swelling. Call the child's parent and ensure the child is seen by a dentist immediately.
Bitten tongue or lip	Apply direct pressure to bleeding area with a clean cloth. If swelling is present, apply cold compresses. If bleeding does not stop readily or the bite is severe, call the child's parent and ensure the child is taken to the hospital emergency room.
Object wedged between teeth	Try to remove the object with dental floss. Guide the floss in carefully so as not to cut the gums. If unsuccessful, call the child's parent and ensure the child is seen by a dentist immediately. Do not try to remove with sharp or pointed objects.
Possible fractured jaw	If suspected, immobilize jaw by any means (handkerchief, neck tie or towel). Call the child's parent and ensure the child is taken to the hospital emergency room.

Refer to the section on *Policy and procedures for emergency situations* in Chapter 5 and *Being prepared for an emergency* in Chapter 1.

Dental programs

York Region Community and Health Services offer a variety of dental programs for Ontario Early Years Centres. Our goal is to increase the dental knowledge of parents and caregivers to improve the oral health of children.

Dental services at your child care centre can be arranged by contacting York Region *Health Connection* at 1-800-361-5653 or by contacting Dental Services directly at 905-895-4512 or toll free 1-800-735-6625.

Dental screening

Dental screening is a quick visual inspection of a child's mouth using a light and a sterilized mirror. It is performed by a Registered Dental Hygienist. Consent from the parent or guardian is required prior to dental screening. Please contact Dental Services to arrange a screening date, prior to obtaining the parent consent. Refer to Appendix 8 *Authorization for Preventive Dental Program – Consent form*.

The purpose of dental screening is to identify children who are in need of urgent dental care or preventive services such as scaling (cleaning) of teeth, fluoride, pit and fissure sealants and/or oral hygiene instruction. Parents are notified if their child has any dental problems. If the family does not have dental insurance for their child and the cost of care would create a financial hardship, they are advised of the Children in Need of Treatment (CINOT) program. The CINOT program can cover the cost of dental care for children with urgent dental needs. Refer to *CINOT & Healthy Smiles Ontario Programs* in this chapter.

Dental health education for parents and caregivers

York Region Community and Health Services provide presentations to parents and caregivers about children's oral health. Information, resource materials and demonstrations will be provided by a Registered Dental Hygienist.

The presentation covers a variety of oral health topics such as:

- Early childhood caries – what is it and how to prevent it
- The importance of baby teeth
- How to keep a child's mouth clean
- Healthy snacking for healthy teeth

Toothbrushing program

York Region Community and Health Services recommends that children attending child care centres participate in a supervised toothbrushing program every day. Upon request, a Registered Dental Hygienist will come to your facility and provide education and instruction to staff on how to develop a safe and effective toothbrushing program. Refer to *Guidelines for a toothbrushing program* in this chapter.

Dental resources

York Region Community and Health Services offer a variety of resources to help educate parents and caregivers on how to care for a child's teeth. Please contact us, or refer to our website at www.york.ca/teeth.

Several resources are available:

- Fact sheets covering a variety of topics. Refer to *Appendix 8* for more information.
- Magnets that illustrate when a child's teeth will erupt and exfoliate
- Video – Early child development video - Dental Health: *The Importance of Baby Teeth and Tips on Brushing* (11 min. 25 sec.)

Contact information

York Region Community and Health Services – Dental Department can be reached at 905-895-4512 or toll free 1-800-735-6625. Ask to speak with a Registered Dental Hygienist, who can provide you with further information.

Clinic locations

York Region Community and Health Services has three convenient dental clinics to serve our clients. An appointment is required to visit the clinics. Please contact us at 905-895-4512 or toll free 1-800-735-6625 to schedule an appointment.

Newmarket	Richmond Hill	Markham
York Region Health Services 22 Prospect Street Newmarket, ON L3Y 3S9	York Region Health Services 50 High Tech Road, 2 nd Floor Richmond Hill, ON L4B 4N7	York Region Health Services 4261 Highway #7 East Suite B 6-9 Unionville, ON L3R 9W6