

2 FROM HEAD TO TOE

You and Your Baby

Congratulations

You're expecting! Taking excellent care of yourself and your baby is sure to be on the top of your to-do list in the months and years ahead.

The College of Dental Hygienists of Ontario (CDHO) has written this booklet to provide you with important oral (dental) health information for you and your baby. As prevention professionals, we want to help make sure your gums and teeth stay healthy during and after your pregnancy, and that your baby's oral health gets off to a good start.

Why is oral health so important? Healthy teeth and gums contribute to overall health. Research suggests that in adults, bacteria from diseased gums may travel through the bloodstream to other parts of the body. This may contribute to a number of serious health conditions ranging from heart disease and stroke to pneumonia. Studies have also linked gum disease to pre-term, low birth weight deliveries. That's why it is especially important for women to take good care of their oral health during pregnancy.

Babies can also suffer from oral health problems including painful teething, oral infections and early childhood caries (cavities). Preventing cavities in baby teeth is very important, so that permanent teeth develop and position themselves properly.

The good news for moms and babies is that with regular dental care and good oral hygiene, both can enjoy a lifetime of good oral health. Here's what you need to know...

What is Gum Disease?

Gum disease begins with the formation of hard and soft deposits on the surface of the teeth. Over time, a build-up of bacteria called plaque collects at the gum line. Eventually this plaque will harden on the teeth into calcium deposits called calculus (tartar).

With poor oral care, these bacteria can cause an inflammation of the gums called gingivitis and penetrate the gum line. Finally, these bacteria can spread into the underlying bone. This is called periodontitis. If not treated, periodontal disease can lead to complete destruction of the tooth's supporting tissues, abscesses and, ultimately, loss of the tooth.

The warning signs for gum disease include:

- Red, swollen or tender gums
- Bleeding while brushing or flossing
- Gums that pull away from the teeth
- Persistent bad breath
- Loose or separating teeth
- A change in the way your teeth fit together

According to some estimates, as much as 75 per cent of adults over the age of 30 may suffer from some degree of gum disease. But with proper oral care, gum disease can be controlled or even reversed.

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Gum Disease and Pregnancy

Preventing gum disease may be good for your baby...

Research has linked gum disease in women to an increased risk of premature delivery. In a study of more than 100 women who were either pregnant or had recently given birth, the women with severe gum or periodontal disease were seven times more likely to deliver a premature, low birth weight baby than those with healthy gums. (By comparison, combined drinking and smoking during pregnancy increases the chances or probability by 2.5 times.) Another study of 2,000 women has also found a similar increased risk.

What is the connection? Researchers believe that bacteria from diseased gums enter the bloodstream during eating or brushing. These bacteria may then affect the levels of prostaglandin (or PGE2), a hormone naturally present in a woman's body. When the level of PGE2 rises significantly, usually in the ninth month of pregnancy, labour begins. But in women with serious gum disease, the level of PGE2 may rise too soon and trigger early labour.

Oral Health for Mom

Regular dental office visits and good daily oral hygiene are important throughout your lifetime. If you are pregnant and have gum disease, or are at high risk for premature delivery, it is particularly important to care for your oral health.

The Dental Hygiene Check-Up

Visiting your dental hygienist on a regular basis is one of the most important steps you can take to maintain or improve your oral health.

Generally, all aspects of a routine dental hygiene visit are safe for you and your baby, unless your caregiver advises otherwise. The second trimester is considered the best time to receive routine care.

Your dental hygienist is trained to take care of the special needs of expectant mothers. A shorter visit or changing the position of the chair might make you more comfortable.

Here's what you can expect from your dental hygienist:

1. He or she will start by reviewing your medical history with you. Some medical conditions could affect your treatment.

Let your dental office know early on that you are pregnant. Inform them of any related concerns or conditions. For some women, pregnancy hormones can aggravate existing oral health conditions such as tender, bleeding gums. Your dental hygienist may recommend more frequent visits during your pregnancy to help keep plaque under control.

2. Next, your dental hygienist will look at your head and neck region, then your tongue, gums, teeth and other areas of your mouth. Any concerns will then be referred to your dentist or doctor.
3. Now your dental hygienist will clean your teeth to remove plaque and calculus build-up. This is called scaling. It is done using hand instruments or a vibrating ultrasonic instrument. Scaling will help reduce bleeding and the risk of bacteria moving through the bloodstream.
4. Your dental hygienist may polish some of your teeth to remove any remaining stains. If needed, you may get a fluoride treatment to strengthen your teeth, or other treatments to help make your teeth less sensitive.
5. Based on the condition of your teeth and gums, your dental hygienist will make up an oral hygiene program for your care between visits. Your program may include eating less sugar or quitting smoking (strongly recommended, particularly during pregnancy).

Between Visits

The personal oral hygiene program that you and your dental hygienist develop should become a daily habit to control or reverse gum disease.

A thorough cleaning once or twice a day is enough. Less than five minutes, twice a day, is all it takes to maintain or improve oral hygiene.

General Care

- **Brushing:** Place your brush at a 45° angle where the tooth and gum meet. Apply gentle pressure as you move the brush away from the gums.

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Don't forget to brush your tongue (with or without toothpaste), where bacteria build up. You should be spending about two minutes each time you brush.

- **Flossing:** Wrap 45 cm. (18 inches) of floss around your middle fingers until you have a two-inch length between them. With the thumb and forefinger of each hand, guide the floss gently and carefully between each tooth, using a back-and-forth motion. Curve the floss around each tooth in a "C" shape. Gently guide it up and under the gum line.
- **Extra Care:** Your dental hygienist may also recommend massaging the gums and using an anti-bacterial rinse.

Special Care During Pregnancy

- If you suffer from a sensitive stomach or "morning sickness" (nausea and vomiting) during your pregnancy, Rinse your mouth with water first, then brush your teeth with a soft brush. Ask if a fluoride rinse would be good for you. Also, try using a smaller toothbrush. Turning your head down over the sink while brushing can also help relax the throat and allow saliva to flow out.
- If you are eating more frequently or have unusual sweet cravings, you may be at a greater risk for caries (cavities). Instead of eating sugary snacks such as candy or cookies, include plenty of fresh, raw fruits and vegetables in your diet.

Oral Health for Baby

Typically, we don't think of cavities or gum disease in connection with babies. But in fact, oral diseases begin very early, from the time bacteria begin to live in the oral cavity.

As new teeth come in (called "eruption") and the child's diet becomes more like an adult's diet, bacteria continue to produce acids and toxins that are harmful to hard and soft tissues in the mouth.

By the time they are teenagers, all children have experienced some form of oral infectious disease.

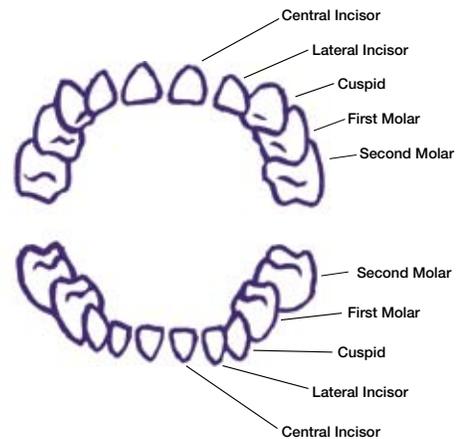
Baby's First Teeth

Baby's first teeth (called "primary" teeth) are key to healthy adult teeth. Primary teeth hold a space for permanent teeth. If your child loses a tooth because

of decay, the permanent tooth may erupt at an angle, causing crowding of the other adult teeth.

Early loss of baby teeth can also affect speech patterns, chewing ability and the use of the tongue.

There are 20 primary teeth. They usually erupt or come in beginning with the central incisors (bottom middle teeth) at six to 10 months, and ending with the second molars shortly after the age of two. The shedding or falling out of these teeth takes place between the ages of six and 12.



Upper Teeth	Eruption Date	Shedding Date
Central Incisor	8 – 12 months	6 – 7 years
Lateral Incisor	9 – 13 months	7 – 8 years
Cuspid	16 – 22 months	10 – 12 years
First Molar	13 – 19 months	9 – 11 years
Second Molar	25 – 33 months	10 – 12 years
Lower Teeth	Eruption Date	Shedding Date
Second Molar	23 – 31 months	10 – 12 years
First Molar	14 – 18 months	9 – 11 years
Cuspid	17 – 23 months	9 – 12 years
Lateral Incisor	10 – 16 months	7 – 8 years
Central Incisor	6 – 10 months	6 – 7 years

Adapted from Torres HD, Ehrlich A. 1999. A Modern Dental Assisting, 9th Ed. Philadelphia, WB Saunders.

Early Childhood Caries (ECC)

Early Childhood Caries, or ECC, is a form of severe tooth decay in the primary (baby) teeth of infants up to one year of age and toddlers (ages one to 3). It affects more than 10 per cent of preschool-age children in Canada.

There are a number of causes of ECC, such as the caregiver passing bacteria to the child, the amount of sugars and starches in the diet, and the time and frequency of feedings.

Children who have ECC tend to remain high risk and have caries in their permanent teeth.

In mild cases of ECC, the child's teeth will be a chalky white. In moderate cases, teeth will be stained brown and may be partially eroded. In the most serious cases, teeth will be dark brown or black with partial or full loss of the tooth's crown, leaving only the root visible at the gum line.

What Causes ECC

Bacteria

ECC is an infectious disease often related to cavity-causing bacteria called streptococci mutans ("strep mutans" for short). Strep mutans are passed from parent to child through frequent and intimate contact (for example, through saliva when kissing). Babies and toddlers are most likely to become infected between the ages of 19 and 31 months, when the primary and secondary molars come in. Infection may occur even earlier, around the age of 12 months, when the incisors come in.

Diet and Nutrition

Diet also plays a significant role in the development of ECC.

Sugars: Oral bacteria thrive in an environment that is rich in carbohydrates. When sugar combines with plaque, an acid is created that removes calcium from the teeth. Frequent brushing and brushing after eating sugar helps to reduce the effect of the acid and protects the teeth from cavities.

There are natural sugars present in many nutritional foods we want children to eat – including dairy foods, grains, fruits and vegetables. Therefore, it is not possible or good to remove all carbohydrates and sugars from their diet. Instead, the goal is to give children the right amount of the right sugars, and at the right time. Your health care provider can also advise you on this.

Fluoride

It is important that children, like adults, receive the proper levels of fluoride. Fluoride should be in the infant's diet soon after birth so that it can make bones and teeth strong. The key is getting just the right amount of fluoride – too little may help cause ECC in young children, while too much may cause fluorosis, a white to brown mottling or streaking of the permanent teeth in the front of the mouth.

Sources of fluoride include drinking water, other foods and formula prepared with water, and products such as toothpaste. Your dental hygienist or dentist can advise you on how much fluoride is best for your children based on their weight (0.05 to 0.07 mg. fluoride per kilogram of body weight is accepted as the maximum intake for minimizing dental fluorosis). Check with your local health department to find out whether your drinking water contains fluoride and if so, how much. If you use well water, it should be tested to determine the level of fluoride.

If your water does not contain fluoride or you are breastfeeding only, your child may be at a higher risk for caries. Your health care professional may prescribe fluoride supplements (usually in the form of chewable tablets or drops).

Daily Care for Infants and Toddlers

To reduce the risk of oral infection and the development of ECC:

- Keep your own teeth and gums as healthy as possible to minimize transmission of strep mutans bacteria.
- Develop a routine for cleaning your baby's mouth. Wipe baby's mouth and gums using a clean, wet cloth or piece of gauze after each feeding.
- Gently clean newly erupted teeth with a gauze or washcloth, or use a small soft toothbrush (with no toothpaste) especially designed for baby teeth.
- To make cleanings more pleasant for your baby, work together with another caregiver. Sit opposite each other knee-to-knee, with the child across your laps.
- Keep non-nutritious, sugary fruit punches and other drinks out of baby bottles.

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- If you do use a bottle or sip cup at naptime during the day or at bedtime (it is best not to), avoid juices, milk or formula – all of these contain some amount of sugar. Use plain water instead.
- Reduce the frequency of night-time feedings. Frequent feeding at night, when saliva flow is at its lowest, increases the risk of ECC. The pooling of any liquid (except water) around teeth at night also increases the risk of ECC.
- If your baby uses a soother, check the packaging and shape of the soother to be sure it has an orthodontic design. (This will help prevent teeth from moving their positions.) The best ones are nipple-shaped, keep baby's lips closed, and encourage natural breathing through the nose.
- Never dip soothers in anything sweet. Honey is one of the worst offenders.
- If your baby is on liquid medication (usually sweetened for taste), rinse and brush the mouth with clear water immediately after the medication is given.
- Check for early warning signs of ECC by lifting up baby's lips. White, chalky teeth signal a mild case; brown or black stained teeth and erosion indicate a more serious case. Contact your dental hygienist immediately.
- Gradually introduce foods such as fresh fruits and vegetables to the diet. These foods, which require chewing hard or chewing long, cause saliva to flow, which removes the acid and returns cavity-protecting calcium to the teeth.

First Birthday, First Visit

It is much better to prevent rather than to treat ECC. The CDHO recommends that babies visit a dental office for the first time at roughly the time of their first birthday, or shortly after the primary teeth begin to erupt.

By this time, very few infants have problems that require treatment from an oral health professional, but almost all have an oral environment at risk for disease.

At your baby's first dental office visit, the oral health team will:

- Assess the risk for oral disease
- Tell you how to begin a preventive oral health program
- Answer questions and demonstrate home care techniques
- Decide how often your child needs to return for follow-up visits

Generally, the CDHO recommends a first cleaning with a dental hygienist at about age two.

The Years Ahead

With good oral care, all children can grow up cavity-free. The habits you help them develop now will last throughout their lives. Here are a few oral care tips for the years ahead:

12-24 Months

- Teach a toddler about dental hygiene when first teeth come through. Children should get used to holding a toothbrush, and watch others as they brush. Let them practise brushing, but continue brushing their teeth for them.
- Begin flossing their teeth when most of the baby teeth are in.

Two-Five Years

- Teach young children to use a pea-size amount of toothpaste for brushing. Make sure they do not eat it.
- Continue to brush and floss their teeth for them.

Six Years

- Encourage children to begin using floss themselves. The dental hygienist will show proper technique during the check-up.
- Continue to monitor their brushing and flossing at home.
- Your oral health professional will advise you if the surface of your child's permanent molars should be sealed with a light plastic coating to prevent caries in the deep fissures (cracks) and grooves of the teeth.
- Keep a note of any accidents or falls that could affect the placement or condition of permanent teeth.

Your Dental Hygienist

Your dental hygienist is an important member of the oral health care team. He or she provides professional treatment and advice to help prevent gum disease and dental cavities, as well as to support and promote total wellness.

In Ontario, all dental hygienists are registered with the College of Dental Hygienists of Ontario (CDHO). The CDHO regulates the profession to make sure the

public receives safe and effective dental hygiene care. All practicing dental hygienists have been educated at a post-secondary dental hygiene program.

Watch for this pin, worn by Ontario's registered dental hygienists.



For more information about oral health, contact your dental hygienist.

Notes

Use the following pages to record baby tooth eruption and shedding dates, details of your child's dental visits, and information and advice given by your dental hygienist.

BABY'S TEETH

See page 3 for diagram of teeth

L=left R=right	Eruption (In) Date	Age (Years, months)	Shedding (Out) Date	Age (Years, months)
Upper Teeth				
Central Incisor	L R			
Lateral Incisor	L R			
Cuspid	L R			
First molar	L R			
Second molar	L R			
Lower Teeth				
Second molar	L R			
First molar	L R			
Cuspid	L R			
Lateral incisor	L R			
Central incisor	L R			

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HEALTH CARE VISITS

DATE: _____ AGE: _____

PURPOSE OF VISIT: _____

NOTES: _____

DATE: _____ AGE: _____

PURPOSE OF VISIT: _____

NOTES: _____

DATE: _____ AGE: _____

PURPOSE OF VISIT: _____

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DATE: _____ AGE: _____

PURPOSE OF VISIT: _____

NOTES: _____

DATE: _____ AGE: _____

PURPOSE OF VISIT: _____

NOTES: _____

OTHER NOTES

References: available upon request.

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