Oral Health Matters for You and Your Baby

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 recent study of more than 100 women who were either pregnant or had recently given birth, the women with periodontal disease were seven times more likely to deliver a premature, low birth-weight baby than those with healthy gums. (By comparison, combined alcohol use and smoking during pregnancy increase the probability by 2.5 times.) Another ongoing 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 biological fluid 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, triggering 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 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 safer 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 educated to accommodate the special needs of expectant mothers, such as shortening the length of the visit and periodically changing the position of the chair to 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 to make sure there are no medical conditions that could influence your treatment.

Let your dental office know early on that you are pregnant, and inform them of any related concerns or conditions. For some women, the hormones of pregnancy 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. The next step is assessing the condition of your head and neck region, followed by your tongue, gums, teeth and other areas of your mouth. Any areas of concern will then be referred to your dentist or physician.

3. You are then ready to have your teeth cleaned (called “scaling”) to remove plaque and calculus build-up. This is done using hand instruments or a vibrating ultrasonic instrument. Removal of plaque and calculus will help reduce bleeding and the risks associated with bacteria moving through the bloodstream.

4. Some of your teeth may then be polished to remove any remaining stains. If needed, you may receive a fluoride treatment to strengthen teeth, or other agents to desensitize them.

5. Based on the condition of your teeth and gums, your dental hygienists will customize and oral hygiene program for your care between visits, and may advise on other matters relating to oral health, such as reducing sugar intake or smoking cessation (strongly recommended, particularly during pregnancy).

Between Visits

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

A thorough cleaning once or twice a day is sufficient. 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 degree angle to the junction between the tooth and gum, applying gentle pressure as you move the brush away from the gums. Don’t forget to brush your tongue (with or without toothpaste), where bacteria build up. You should be spending about three 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 and gently guide it up and around 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 (nausea and vomiting) during your pregnancy, rinse your mouth or brush your teeth at frequent intervals and try using a smaller toothbrush. Turning your head down over the sink while brushing will 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 increased 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 diet of the infant and young child becomes more sophisticated, 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 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 beginning with the central incisors (bottom middle teeth) at 6 to 10 months, and ending with the second molars shortly after the age of 2. The shedding of these teeth takes place between 6 and 12.

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 1 year of age and toddlers (ages 1 to 3). It affects more than 10 per cent of preschool-age children in Canada.

There are a number of contributing factors to ECC, including the transmission of bacteria from the caregiver to the child, the amount of sugars and starches in the diet, and the time and frequency of the feedings.

Children who experience ECC tend to remain high risk and experience caries in their permanent teeth.
In mild cases of ECC, the child’s teeth will have a chalky white appearance. 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 gumline.

What Causes ECC

Bacteria

ECC is an infectious disease primarily related to cavity-causing bacteria called streptococci mutans (“strep mutans” for short). Strep mutans are passed from mother to child through frequent and intimate contact (for example, through saliva).

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. When the teeth are free of acid, the calcium, carried in saliva, moves back to the teeth. Cavities form when more calcium is removed from the teeth than returns over a long period of time.

There are natural sugars present in many of the nutritional foods we want our children to eat – including dairy foods, grains, fruits and vegetables. Therefore, it is not possible to remove all carbohydrates and sugars from the 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.

Breastfeeding and Baby Bottles – Your decision whether or not to breastfeed, and for how long, is a very personal one. While the vast majority of experts agree that breastfeeding is highly beneficial for your baby’s health, studies have shown that longer term breastfeeding can be associated with increased acid production and increased risk of ECC. As a general guideline to minimize this risk, the American Academy of Pediatric Dentistry recommends that babies be weaned off the bottle or nursing at
the age of 12 months, and be taught to use the cup.

Frequent nighttime bottle feeding, when saliva flow is at its lowest, also increases the risk of ECC. Sending a baby to bed with a bottle significantly increases the risk of ECC.

**Fluoride**

It is important that children, like adults, are exposed to the proper levels of fluoride. Fluoride should be in the infant’s diet soon after birth for proper mineralization of the bones and teeth. The key is getting just the right amount of fluoride — too little may contribute to the development of ECC in young children, while too much may contribute to fluorosis, a white to brown mottling 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 child based on their weight (0.05 to 0.07 mg. fluoride per kilogram of body weight is accepted as the upper limit of 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, and you child is at high risk for caries, you 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.
- If you do use a bottle at naptime or bedtime (it is best not to), or a sip cup during the day, avoid juices, milk or formula — all of these contain some amount of sugar. Use plain water instead.
- Reduce the frequency of nighttime feedings.
- If your baby uses a soother, check the packaging and shape of the soother to be sure it has an orthodontic design. The best ones are nipple-shaped, keep the baby’s lips closed and encourage natural nasal breathing.
- 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 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, stimulate saliva to flow, which removes the acid and returns cavity-protecting calcium to the teeth.
First Birthday, First Visit

Because it is much better to prevent 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
- advise on beginning a preventative 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 2.

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 practice brushing, but continue brushing their teeth for them.
- Begin flossing when most of the baby teeth are in.

2-5 Years

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

6 Years

- Encourage children to begin using floss themselves. The dental hygienist will demonstrate 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 fissure and grooves of the teeth.
- Keep a note of any accidents or falls that could affect the placement or condition of permanent teeth.
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

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References


Udin RD, Newer Approaches to Preventing Dental Caries in Children, J Can Dent Assoc. 1999; 11:843-851


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