

# 1 FROM HEAD TO TOE

## Preventing and Treating Gum Disease for Overall Health

### Gums and Overall Health

We all know that prevention is one of the keys to maintaining overall health.

We exercise and watch what we eat to help reduce our risk of heart attack, stroke and certain cancers. In much the same way, we should take good care of our oral (dental) health now to prevent gum disease and tooth loss later.

**Why is this so important?** The reasons are much more than cosmetic. While we once believed the worst outcome of gum disease was tooth loss, we now know that oral health matters from head to toe.

Like smoking, elevated cholesterol or obesity, periodontal (gum and bone) disease may be a risk factor for a number of serious health conditions. In recent studies, gum disease has been linked to:

- heart disease and stroke
- pneumonia and other respiratory diseases
- diabetes
- premature, low birth weight deliveries

**How is this possible?** For those with gum disease, the simple act of brushing the teeth or chewing can injure gum tissue, allowing bacteria to enter the bloodstream. It is believed that these bacteria may travel to other parts of the body, potentially worsening or causing other types of health problems.

### How Gum Disease Develops

According to some estimates, as many as 75 per cent of adults over the age of 30 may suffer from some degree of 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 hardening on the teeth into calcium deposits called calculus (tartar).

With poor oral care, these bacteria can cause inflammation of the gums (gingivitis), penetrate the gum line and finally spread into the underlying bone (periodontitis).

If unchecked, periodontal disease can lead to complete destruction of the tooth's supporting tissues, abscesses and, ultimately, loss of the tooth.

### Gum Disease and Your Heart

*Preventing gum disease may be good for your heart...*

Research suggests gum disease may put you at increased risk of heart disease and stroke. In fact, according to some studies, the presence of gum disease could be a significant risk factor, comparable to smoking, family history and elevated cholesterol.



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Studies have suggested that bacteria from diseased gums may travel through the bloodstream, potentially contributing to the formation of artery-clogging plaques.

In one of more than five studies conducted into the potential links between gum disease and the heart, a group of 1,200 U.S. veterans was followed over a 35-year period. The group underwent extensive medical tests, including regular dental check-ups. The study found that men with moderate to severe gum disease were much more likely to suffer a stroke or from heart disease than those with healthy gums.

It is also believed that gum disease may contribute to infective endocarditis, a condition in which the interior lining of the heart and heart valves become inflamed, possibly due to a bacterial infection. If left untreated, this condition could lead to a fatal infection.

## Gum Disease and Your Lungs

*Preventing gum disease may help you breathe easier...*

Traditionally, we have thought of smoking, advanced age and the presence of other health conditions that weaken the immune system as risk factors for lung disease. But scientists now believe that gum disease may also be a significant risk factor, increasing the risk of respiratory infections, and potentially worsening the severity of pneumonia, bronchitis, emphysema and Chronic Obstructive Pulmonary Disease (COPD).

Bacterial respiratory infections are caused by the aspiration or inhaling of germs from the mouth and throat into the lungs. When these germs reach the lower respiratory tract, they may cause infections or worsen existing lung conditions.

Studies have also found that bacteria found in the oral cavity can travel to the lungs and cause diseases such as pneumonia, particularly in people with gum disease.

## Gum Disease and Diabetes

*Preventing gum disease may help you manage the conditions associated with diabetes...*

We have learned that people with diabetes are more prone to a variety of bacterial infections, including gum disease, than people without diabetes. Indeed, the relationship between gum disease and diabetes may be

even stronger. Having gum disease may in fact worsen an existing case of diabetes, or put you at increased risk for the complications associated with diabetes.

In one study, patients with diabetes required insulin treatment less often following treatment for their gum disease. In another study, it was found that severe periodontal disease may increase both blood sugar levels and the amount of time the body functions with high blood sugar, putting those with diabetes at increased risk for complications.

The results of these studies suggest severe gum disease may be an important risk factor in the progression of diabetes, and that people with both diabetes and gum disease should receive regular treatment from an oral health professional to reduce inflammation of the gums.

## 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 increases the 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 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.

## What Can I Do?

If you have, or are at risk for one or more of these health conditions, it is particularly important to pay attention to your oral health.

The good news is that with regular, proper oral care, gum disease can be controlled or even reversed.

## 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.

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.
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.
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 hygienist will customize an oral hygiene program for your care between visits and may advise on other matters relating to oral health, such as reducing sugar intake and smoking cessation.

## 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. Less than five minutes, twice a day, is all it takes to maintain or improve oral hygiene. It's never too late – or too early – to develop good habits.

Although your specific oral care program will vary according to a number of factors, and should be developed by you and your dental hygienist, there are some general guidelines for maintaining good oral health at any age:

### *Infant Care*

- Give the infant plain water instead of milk or sweet juices at naptime.
- Gently clean newly erupted teeth, gums and tongue with a gauze or washcloth.

### *Children*

- Familiarize children with oral cleaning habits.
- Parents may wish to clean the child's teeth before bedtime and allow the child to try brushing on his/her own in the morning.
- First visits to the dental hygienist are recommended at about age two.

### *Teenagers and Adults*

- A thorough cleaning of your mouth once or twice a day is sufficient.
- **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 (your dental hygienist may also recommend that you use an electric toothbrush).



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- **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 under the gum line.

## Seniors

- Seniors can still get cavities, especially around the roots of the teeth. Continue to brush and floss regularly.
- Even if you wear dentures, it is still important to clean your mouth and get regular check-ups to prevent oral health problems. Ask your dental hygienist to help you find the correct aid for you to clean between your teeth.

## Your Dental Hygienist

Your dental hygienist is an important member of the oral health care team, providing 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), which regulates the profession to ensure the public receives safe and effective dental hygiene care. All practicing dental hygienists have been educated at a post-secondary dental hygiene program. Find your dental hygienist on our website.

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



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

**Research References:** available upon request.