



What are Periodontal diseases?

Periodontal diseases are infections of the gums and the bone that surrounds the teeth. In advanced disease, the teeth themselves will be affected. The primary cause of these infections is the sticky accumulation of bacteria called **plaque**. Millions of people have some type of periodontal disease but are unaware that they have a problem. These diseases are almost always painless and may go completely unnoticed in their early stages.

There are two stages of periodontal disease:

- Gingivitis—a superficial infection of the gum.
- Periodontitis—a more advanced infection that involves the surrounding bone.

Plaque forms continuously, so it must be removed everyday with regular brushing and flossing. If plaque is allowed to build up, tartar or calculus forms, which cannot be removed by brushing and flossing. The bacteria that cause periodontal disease thrive in the calculus deposits. The bacteria's waste products are toxic. The effects of these toxins, and the body's own immune response to them, will begin to destroy the bone surrounding the teeth.

Gingivitis can sometimes be recognised by a redness and puffiness of the gums, bleeding of the gums when they are brushed, and sometimes a bad mouth odour, or halitosis.

When the infection moves from the gum to the underlying bone, the problem is now periodontitis. In this stage, the bone that supports the teeth is lost and once this bone is lost it will not grow back.

Periodontitis can be characterised (in addition to the signs associated with gingivitis) by a receding of the gums, spaces opening between teeth, discomfort in the gums and loosening of the teeth. Gum recession is never normal and can expose the root, making it more vulnerable to decay. Loosening of one or more teeth is almost always a sign of severe bone loss. Spaces occur when the gums and underlying bone have receded and is typically a sign of an advanced problem.

Periodontal examination

In addition to a visual examination, the Dental Hygienist or Dentist will use radiographs (x-rays) and a periodontal probe to determine if you have any disease present, and if so, to what extent.

The Dental Hygienist or Dentist first looks at the gums. Depending on skin tone, they should be light pink in colour, have stippled appearance, and tight against the teeth.

Radiographs will reveal the extent of any bone loss that may have occurred, and will also show up decay that may not have been apparent on a visual exam.

The periodontal probe is particularly valuable because it can reveal disease long before it is apparent on x-rays. In a healthy jaw, the bone and gum extend to the base of the enamelled portion of the teeth. The periodontal probe measures the depth of the sulcus, the separation that exists between the gum and the tooth. A normal sulcus is 2 to 3 millimetres deep. Anything more than that indicates that a pocket has developed—the result of calculus build up or bone loss due to periodontal disease. The deeper the sulcus, the more advanced the disease.

If too much bone is lost, there will be insufficient support for the teeth, and they will have to be extracted.

Treatment

Scaling and Root Planing is a common non-surgical treatment for periodontal (gum) disease. Scaling involves a deep cleaning of the tooth above and below the gum line in order to remove any plaque and calculus (tartar) that has accumulated on the tooth.

The root is then planed until it is smooth. This eliminates any rough calculus deposits on the root that can provide breeding grounds for bacteria.

A smooth and clean root surface provides a much better substrate for the periodontal (gum) ligaments to reattach. This reattachment results in a reduced pocket size therefore eliminating the environment in which the bacteria that causes periodontal disease can flourish.

After the treatment, our Dental Hygienist will often prescribe chlorhexidine, an antibacterial mouth rinse shown to be effective for the treatment of periodontal disease. We will also schedule a follow-up appointment in the next 4-6 weeks to check on your improvement.

Health considerations

A commitment to maintaining good dental health is essential to the successful treatment of periodontal disease. The outcome of this treatment is very much dependent on how well you maintain a regular schedule of brushing and flossing.

If you smoke, you should also consider reducing, or eliminating the amount of cigarettes that you smoke each day at least until your gums have had an opportunity to heal. Smoking can have a significant effect on your dental health.

Systemic effects

A growing body of research links gum disease or periodontal disease to heart disease, diabetes, pre-term and low birth weight babies, and respiratory disease.

- **Heart disease**—People with periodontal disease are almost twice as likely to suffer from coronary artery disease as those without periodontal disease. Studies indicate that periodontal disease may foster the development of clogged arteries and blood clots when oral bacteria get into the blood stream. Periodontal disease also has been known to exacerbate existing heart conditions.
- **Diabetes**—People with diabetes are more likely to have periodontal disease than people without diabetes, probably because diabetics are more susceptible to contracting infections. Research is also showing that periodontal disease can make it more difficult for diabetics to control their blood sugar because severe periodontal disease somehow increases blood sugar.
- **Premature birth**—Pregnant women who have periodontal disease may be seven times more likely to have a baby that is born too early and too small. More research is needed to confirm how periodontal disease may affect pregnancy outcomes. It appears that periodontal disease triggers increased levels of biological fluids that induce labour. Furthermore, data suggests that women whose periodontal condition worsens during pregnancy have an even higher risk of having a premature baby.
- **Respiratory disease**—Research suggests that bacteria found in the throat as well as bacteria in the mouth can be drawn into the lower respiratory tract causing infections or worsening existing lung conditions.