

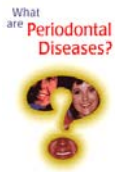
# Periodontal Diseases: What do You Need to Know?

Periodontal diseases, also known as gum disease, are some of the most common infections in the United States. In fact, more than 75% of adults have some form of periodontal disease. Periodontal diseases are a major cause of tooth loss in adults. Periodontal disease may be a risk factor in fatal coronary heart disease, stroke, as well as low birth weight and premature births in pregnant women.

Despite the number of people infected with these diseases, most believe that they don't have them. In a recent survey, eight out of ten Americans believe they did not have periodontal diseases, but seven out of ten exhibited one or more symptoms.

Periodontal diseases are painless until their advanced stages. If left untreated they irritate the gum, causing infection, periodontal diseases can result in bad breath; red, swollen, bleeding gums, and eventually tooth loss.

Despite all these facts, periodontal diseases are some of the most preventable diseases. To prevent periodontal diseases you need to understand what causes them, learn and practice good oral health habits, and seek regular professional care.



## What are periodontal diseases?

The word "periodontal" literary means "around the tooth". Periodontal diseases are bacterial gum infections that destroy the attachment fibers and supporting bone that hold your teeth in your mouth. The main cause of this disease is bacterial plaque- a sticky colorless film that constantly forms on your teeth. Daily home care, including proper brushing and flossing, is a must to prevent plaque buildup.

If plaque is not removed, it can turn into a hard substance called calculus in less than two days. Calculus is so hard it can only be removed during a professional cleaning. If calculus develops below the gums onto the tooth root, it makes plaque removal more difficult, leaving you at increased risk for periodontal diseases.

Toxins (or poisons) produced by the bacteria in plaque irritate the gum, causing infection. These toxins also can destroy the supporting tissues around the teeth, including the bone. When this happens, gums separate from the teeth forming pockets that fill with even more plaque and more infection. As the diseases progress, these pockets deepen, more gum tissue and bone are destroyed, and the teeth eventually become loose. If periodontal diseases are not treated, the teeth may need to be removed.

Periodontal diseases can affect one tooth or many teeth. For example, your front teeth may not show signs of periodontal diseases while a tooth in the back of your mouth may become loose due to severe disease progression. One may lose virgin teeth (teeth that never had cavities or fillings) due to periodontal disease.

**There are many forms of periodontal diseases.** The most common ones include:

- **Gingivitis:** The mildest form of the diseases, gingivitis causes the gums to become red, swell, and bleed easily. There is usually little or no discomfort at this stage. Gingivitis is reversible with professional treatment and good home oral care.
- **Mild Periodontitis:** If gingivitis is left untreated, it can advance to periodontitis. In the mild stage, periodontal diseases begin to destroy the bone and tissue that support the teeth.
- **Moderate-Advanced Periodontitis:** In the mid-stages, periodontal diseases can lead to more bone and tissue destruction. The most advanced form of these diseases includes extensive bone and tissue loss. Teeth often become loose and may have to be removed.



Illustrating the progression of periodontal diseases from gingivitis to advanced periodontitis

## What other factors might contribute to periodontal diseases?

Although plaque is the primary cause of periodontal diseases, other factors can affect the health of your gums, including:

- **Smoking/tobacco use:** Tobacco users are more likely to get periodontal diseases and suffer from the more severe forms. Also, healing following therapy may take more time.
- **Pregnancy and puberty:** Some hormonal changes can cause the gums to become red, tender and bleed easily. Any pre-existing periodontal diseases can become more severe.
- **Stress:** Stress can make it more difficult for the body to fight off infection, including periodontal diseases.
- **Medications:** Some drugs, such as oral contraceptives, antidepressants, anti-seizure and certain heart medicines, can affect oral health. Always inform your dental care professional of the medicines you are taking and any changes in your health history.
- **Clenching or grinding your teeth:** These habits can put excess force on the supporting tissues of the teeth and could speed up the rate at which these tissues are destroyed.
- **Diabetes:** periodontal diseases can be more severe in uncontrolled diabetics. In addition, untreated periodontal disease can make it harder for uncontrolled diabetics to keep their diabetes under control.
- **Poor nutrition:** A diet low in important nutrients also can make it harder for the body to fight off the infection.
- **Systemic diseases:** Diseases that interfere with the body's immune system may worsen the condition of the gums.

**Prevention of periodontal diseases:**

- 1) Brush your teeth thoroughly at least twice a day for 4 minutes or longer.
- 2) Floss thoroughly every day.
- 3) Eat a balanced diet for good general health.
- 4) Schedule regular dental visits - at least twice annually.

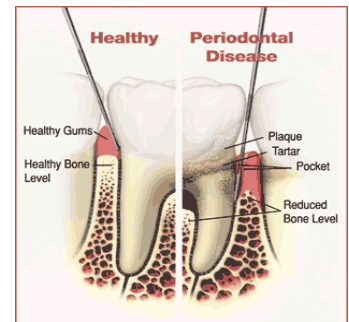
You can help your doctor in the fight against periodontal diseases by learning the warning signs. If you notice any of the following indications, see your doctor immediately:

Gums that bleed when brushing or flossing.  
 Gums that have pulled away from the teeth.  
 Persistent bad breath or bad taste.  
 Any change in the way your teeth fit together when you bite.  
 Any changes in the fit of prostheses such as partial dentures.

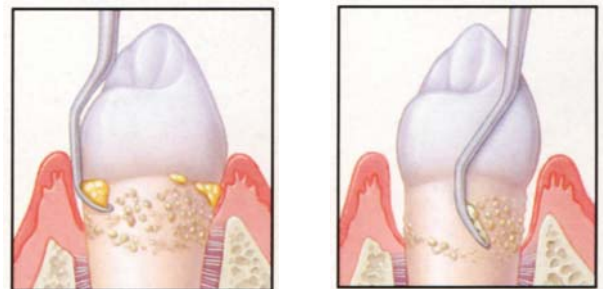
Red, swollen or tender gums.  
 Pus between the teeth and gums when the gums are pressed.  
 Permanent teeth that are loose or you notice new spaces.

Periodontal evaluation is necessary to determine the first step toward treatment of the periodontal disease. During periodontal evaluation, many different aspects are being examined:

- Pocket depths
- Attached gingiva
- Recessions
- Mobility
- Drifted teeth (teeth that are tipped or rotated).
- Several other considerations which are different for each patient



In terms of treating periodontal disease, the first step is usually a thorough cleaning which may include SCALING to remove calculus deposits above and beneath the gum-line. To aid in the healing process, tooth roots may be planned. ROOT PLANNING smooths the root surface so that gum tissue next to the teeth may heal and reattach properly. Antibiotics or anti-microbial mouth rinses may also be recommended to control growth of several types of bacteria which create toxins, cause periodontal disease or inhibit the healing process.



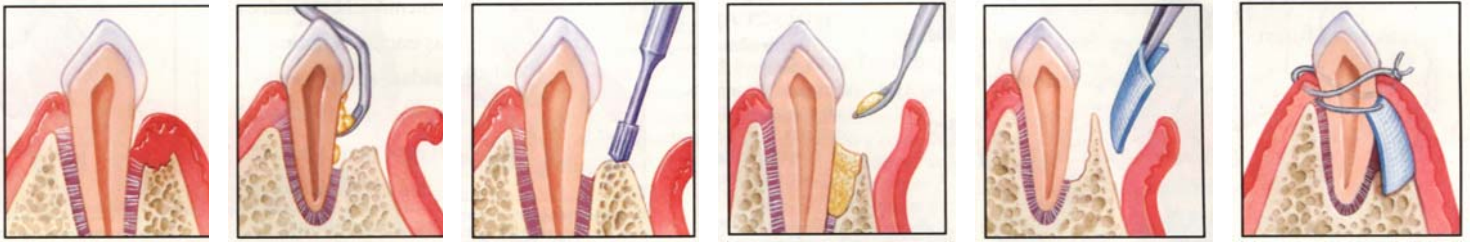
With Scaling & Root planning we are able to remove the deposits under the gums.

**Crown Lengthening:** A specific procedure directed at exposing more clinical crown (part of teeth seen above the gum-line), by managing the surrounding soft and/or hard tissues. When a tooth has short clinical crowns by means of redundant tissue (excess gums), or a restoration (filing or crown) whose faulty margins extend well below the gingival crest, or decay extending into the attachment apparatus, a crown lengthening will reposition the surrounding tissues to allow for a healthy periodontal situation.



**Surgery** may be required when deeper pockets (over 4 mm) persist. It is difficult for the dentist or hygienist to remove calculus from deep pockets, and patients can rarely keep them clean and free of plaque. Allowing pockets to remain invites infection and bone destruction. The bristles of a tooth brush are only designed to reach 1, 2, or 3 mm beneath the gums.

When pockets are deeper and bone has been destroyed, **FLAP SURGERY** may be necessary to allow the dentist to see the roots of the teeth and remove calculus, plaque and any diseased tissue (known as granulation tissue). In this technique, the gum is lifted away and is then sutured back into a new position that will be easier to keep clean.



Following anesthesia, the gum is reflected, the diseased tissue is removed, the damaged bone is recon toured, a membrane with grafting material is secured in place and the area is allowed to recover.

Osseous (bone) surgery sometimes accompanies flap surgery. In osseous surgery some of the bone around the tooth is reshaped to create a more maintainable and healthier architecture. In certain cases, a bone graft may be employed to replace lost bone and increase stability of the teeth. The body utilizes the graft particles as a scaffolding to repair the defect.



**Guided tissue regeneration – GTR** During Surgery, a thin film-like material called a barrier may be placed around the tooth root and covered by gingiva. The barrier keeps the rapidly growing gingiva away and provides a space for the healthy periodontal ligament to regenerate and connect new fibers with the tooth root as well as to allow for bone re-growth.

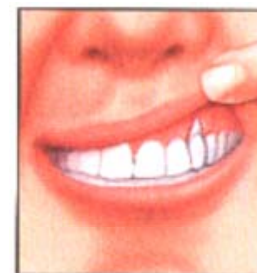
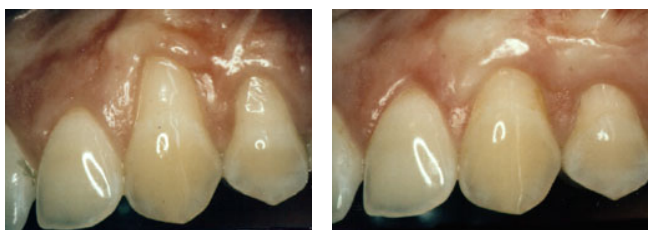
In specific instances, bone morphogenic protein may be utilized in combination with grafting material to enhance the ability of the recipient site to achieve a solid functional supporting structure. Of course there are limits to what GTR therapy can do. It's not magic. But it gives the body a chance to recreate original conditions. In our office, our patients will receive the latest and most up-to-date techniques for their periodontal treatments.

**PERFOBONE /DEMBONE /LAMBONE (Demineralized Bone used in osseous grafts)**

**Description:** This allograft was recovered from a carefully screened human donor. There was no evident infectious or malignant disease nor lifestyle associated with hepatitis or AIDS risk. Blood tests for syphilis, HIV, and hepatitis were negative. After demineralization in hydrochloric acid, the bone was further sterilized by ethylene oxide or irradiation and freeze-dried to preserve it. Random samples were tested for water and ethylene oxide residuals and were below FDA standard. Cultures were negative. A vacuum was proven electronically at time of shipping. If the vacuum and seal are intact, this tissue can be stored for years at room temperature without loss of activity (check individual expiration date). Because it has been soaked in HCL as part of processing and further sterilized by ETO, or irradiation, we consider this to be ONE OF THE SAFEST OF ALL bioimplants!

**Allograft Types:** Fresh bone from the patient, frozen allograft, and freeze-dried bone all heal by slow resorption and gradual replacement, or creeping substitution. This is referred to as "OSTEOCONDUCTION". DEMBONE PERFOBONE and LAMBONE heal by OSTEOINDUCTION because they release "BMP" OR "Osteogenin". Because PERFOBONE DEMBONE and LAMBONE are soaked in strong hydrochloric acid for hours, rejection and disease transmission are highly unlikely. Also, new bone is formed much faster in osteoINDUCTive healing with PERFOBONE DEMBONE AND LAMBONE than in osteoCONDUCTION only. DEMINERALIZED BONE, when carefully and properly prepared, HAS THIS UNIQUELY DYNAMIC BIOLOGIC ACTION!

**Free Gingival Grafts / Mucogingival procedures:** Soft tissue is added to reinforce thin gums or to fill in areas where gums have receded. Grafted tissue, usually taken from the roof of your mouth, is sutured in place over the affected area.



Thin, recessed gums reveal tooth roots, causing thermal sensitivity and an uneven gum-line.