

# **THE AMERICAN ACADEMY OF PERIODONTOLOGY**

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# PERIODONTAL DISEASES

*what you need to know*

KEEPING A HEALTHY SMILE FOR LIFE

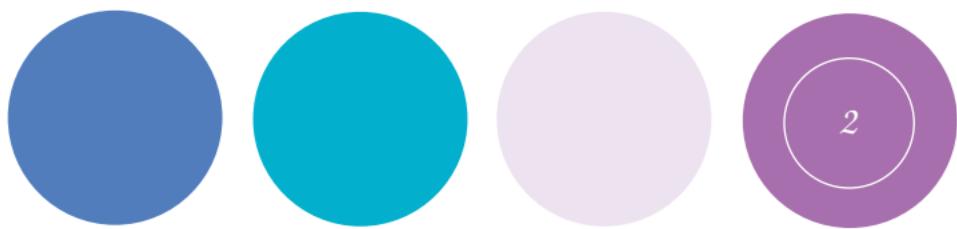


## *keeping a healthy smile*

The image of grandparents' "teeth" in a drinking glass is a common memory associated with many people's youth. It was believed that as a person got older, tooth loss was inevitable. With the aid of new research and better oral care, members of today's generation are more likely to keep their teeth in their mouths for life.

Research shows that nearly one in three U.S. adults aged 30 to 54 has some form of periodontitis, also known as gum disease. This high incidence may not only be related to age but also to other risk factors, suggesting that tooth loss is not an inevitable aspect of aging...Read on to discover how you can keep a healthy smile for a lifetime!





## *What are periodontal diseases?*

The word “periodontal” literally means “around the tooth.” Periodontal diseases are bacterial gum infections that destroy the gums and supporting bone that hold your teeth in your mouth. Periodontal diseases can affect one tooth or many teeth.

The main cause of periodontal diseases is bacterial plaque, a sticky, colorless film that constantly forms on your teeth. If the plaque is not removed, it can turn into a hard substance called calculus or tartar in less than two days. Tartar is so hard it can only be removed by an oral health professional, such as a dentist or dental hygienist. The bacteria in plaque infect the gums, and release poisons that cause redness and inflammation (irritation). The inflammation and the poisons themselves cause destruction of the tissues that support the teeth, including the bone. When this happens, the gums separate microscopically from the teeth, forming pockets that fill with even more plaque causing even more infection.

**Periodontal diseases are multi-factorial.** This means that there is not just one cause of periodontal diseases but rather multiple factors that can affect the health of your gums.

- **TOBACCO** use significantly increases the risk of developing periodontal diseases and can negatively affect treatment.
- **HORMONAL CHANGES** during pregnancy, puberty and menopause can cause the gums to become red, tender and bleed easily.
- **GENETICS** and family history of periodontal diseases indicate a greater likelihood of developing these diseases.
- **STRESS** can make it more difficult for the body to fight off infection, including periodontal diseases.
- Some **MEDICATIONS** such as oral contraceptives, antidepressants and certain heart medicine, can affect oral health.
- **DESTRUCTIVE HABITS** such as improper oral hygiene technique, oral piercing, drug or alcohol abuse can affect periodontal health.
- **POOR NUTRITION** can make it harder for the body to fight off infection.
- **SYSTEMIC DISEASES** that interfere with the body's immune system may worsen the condition of the gums and supporting bone.

## *Are all forms of periodontal diseases the same?*

There are many types of periodontal diseases. The following is an overview of the most common:

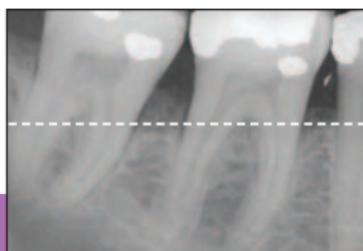
### **Gingivitis**

As the mildest form of the periodontal diseases, gingivitis causes the gums to become red, swollen, and bleed easily. There is usually no discomfort at this stage.

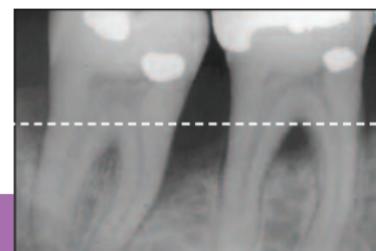
### **Chronic Periodontitis**

Chronic periodontitis is a condition resulting in inflammation within the soft tissues surrounding the teeth causing progressive attachment and bone loss (see Figures 1.0 and 2.0). It is diagnosed by bone loss on a dental X-ray, the formation of gum pockets and/or receding gums. It is most common in adults, but can occur at any age.

*Figure 1.0*



*Figure 2.0*



*Dotted line indicates healthy bone level*

## **Aggressive Periodontitis**

This form occurs in patients who are otherwise in good health. Common features include rapid attachment loss and bone destruction. There are two forms of aggressive periodontitis:

**LOCALIZED AGGRESSIVE PERIODONTITIS** – Most often occurs near puberty and usually involves attachment loss around first molars and/or front teeth but may involve one or two additional teeth.

**GENERALIZED AGGRESSIVE PERIODONTITIS** – Usually, but not always affects people under 30 years of age. It involves attachment loss on at least three permanent teeth in addition to first molars and incisors.

## **Periodontitis as a Manifestation of Systemic Disease**

As the name indicates, this form is associated with one of several systemic diseases that are related to periodontitis, such as diabetes.

## **Necrotizing Periodontal Diseases**

These types of periodontal diseases cause ulcers in the gums between the teeth and are most commonly observed in individuals with certain conditions including, but not limited to, HIV infection, malnutrition and immunosuppression. Stress, smoking, and poor oral hygiene sometimes can contribute to this problem.



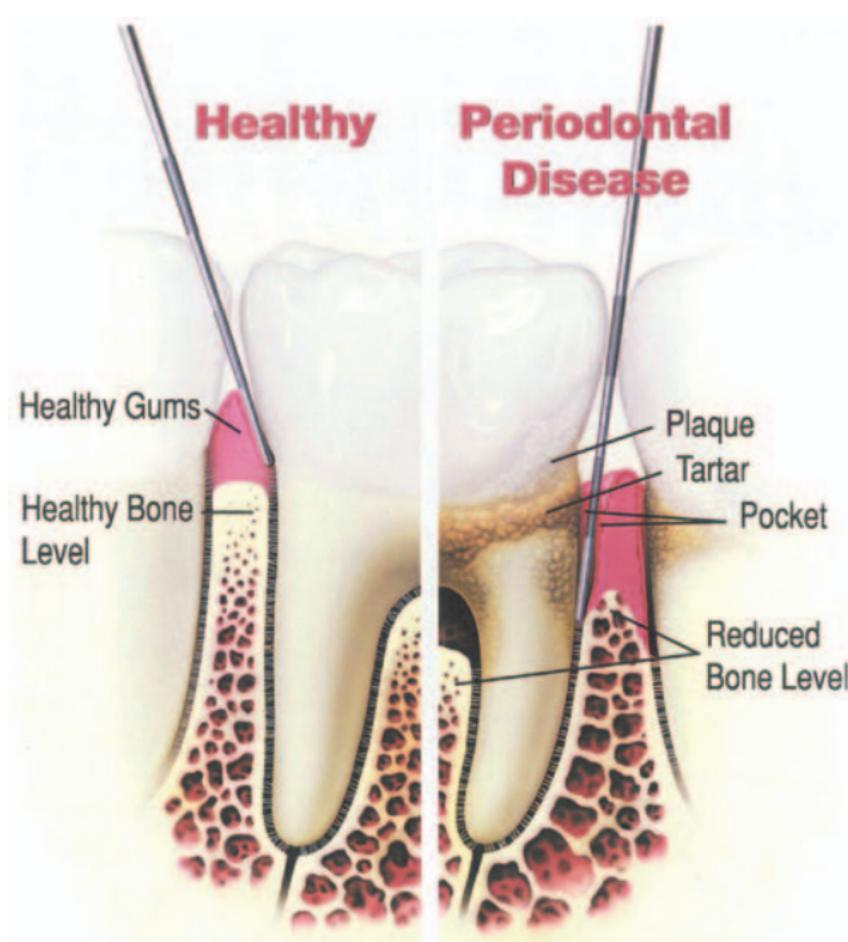
## *What are the signs of periodontal diseases?*

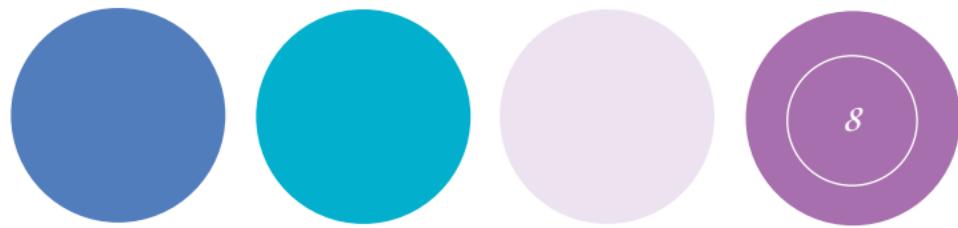
Periodontal diseases are often silent, meaning that symptoms may not materialize until significant bone loss has occurred. Some people may have periodontitis and not experience any symptoms and be unaware that they have disease. Common symptoms and signs of periodontal diseases include:

- RED, SWOLLEN OR TENDER GUMS
- BLEEDING WHILE BRUSHING OR FLOSSING
- GUMS PULLING AWAY FROM THE TEETH  
MAKING TEETH APPEAR LONGER
- LOOSE OR SEPARATING TEETH
- PUS BETWEEN THE GUM AND TOOTH
- PERSISTENT BAD BREATH
- A CHANGE IN THE WAY YOUR TEETH  
FIT TOGETHER WHEN YOU BITE
- A CHANGE IN THE FIT OF PARTIAL DENTURES

If you notice any of these symptoms, you should see a periodontist for a complete periodontal examination. A periodontist is a dentist who specializes in the prevention, diagnosis and treatment of tissues surrounding the teeth. In addition, periodontists are experts in the placement and maintenance of dental implants.

During a periodontal examination, the periodontist will gently place a small measuring instrument called a periodontal probe in the pocket between the teeth and gums to measure pocket depths and help make a diagnosis. Probing depths measuring 1-3mm are usually considered healthy. Four to 5mm may indicate mild periodontitis, 5-6mm suggest moderate periodontitis, and 7mm or greater may indicate severe periodontitis. In addition to probing depth measurements, X-rays may be taken to evaluate the health of the bone supporting the teeth.

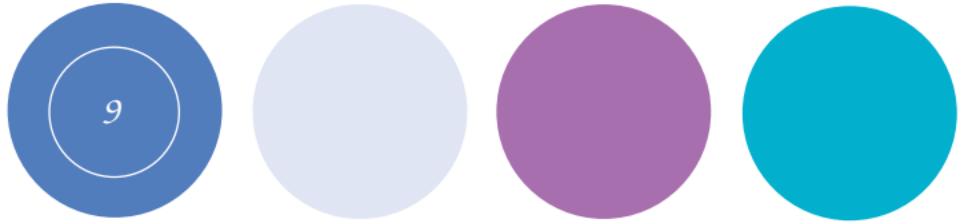




## *How are periodontal diseases treated?*

Once your periodontal health has been evaluated, your periodontist will work with you to determine the best treatment options to control your disease and bring you back to health. Treatment can vary depending on how far the disease has progressed. If diagnosed and treated in the early stages, simple non-surgical periodontal therapy may be sufficient. If periodontitis has advanced to the point where the periodontal pockets are deep and significant amounts of bone are lost, surgical therapy may be necessary.

Once periodontitis has been controlled, patients will require ongoing periodontal maintenance procedures to sustain health. This ongoing phase of treatment will allow your periodontist to assess your periodontal health and make sure that your infection stays under control or remains eliminated. During these re-evaluation appointments, your mouth will be examined, new calculus and plaque will be removed and, if necessary, your teeth will be polished and your bite will be checked. Periodontal diseases are chronic diseases, just like diabetes. Without careful, ongoing treatment, periodontal diseases can and often do recur.



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## *How can the periodontal diseases be prevented?*

Good oral hygiene and professional care are the keys to keeping your teeth for a lifetime. The best way to prevent periodontal diseases and tooth decay is to remove the bacterial plaque by thorough brushing and flossing every day. Good oral hygiene habits will help keep the formation of dental tartar to a minimum.

Regular dental visits that include a periodontal examination are also important to detect any changes in periodontal health and, if necessary, to remove hardened tartar in places that your toothbrush and floss may have missed. A professional cleaning (often called a prophylaxis) at least twice a year is recommended for patients with good periodontal health. If you have had any form of the periodontal diseases, you may need professional maintenance more frequently.

Congratulations on taking the first step to achieving periodontal health! Preventing and/or controlling periodontal diseases is a worthwhile commitment that will keep you smiling for life.





## ***Diabetes and Periodontal Diseases***

If you or someone you know has diabetes, you already know that it is important for diabetic patients to monitor the status of their diabetes and keep it under control with diet and exercise. However, you may not know that good oral health not only keeps the mouth and gums free from infection, but also might have a significant impact on the control of diabetes.

Diabetic patients are three-to-four times more likely to develop chronic periodontal infections. Like any other infection in the body, periodontal infections can impair the ability to process and/or utilize insulin which can make diabetes more difficult to control. In addition, a periodontal infection may be more severe in a diabetic patient than in someone without diabetes. These infections may cause increased blood sugar that can



increase the periods of time when a diabetic's blood sugar level is too high. Consequently, it is important for diabetic patients to have their periodontal diseases treated to control or eliminate the infection as one more way to achieve optimal control of their blood sugar levels.

Treatment options for diabetic patients vary depending on the level of control they have over their diabetes and the severity of the existing periodontal damage. For well controlled diabetic patients, periodontal treatment is similar to a non-diabetic patient's treatment. In the early stages of periodontal diseases, treatment usually involves scaling and root planing, a procedure in which plaque and tartar are removed from the surfaces of the teeth, both above and below the gums. More advanced cases may require additional treatment combined with antibiotics. Happily, periodontal therapy has been shown to improve blood sugar levels in diabetic patients, and may decrease their need for insulin.

As the research progresses on diabetes and periodontal diseases, it becomes easier to see that the link between them is probably a two-way street. See a periodontist today to get on the right side of the street and ensure that you are headed for a life of good oral and *overall* health.



## *Heart and Periodontal Diseases*

When you think about your own risk for cardiovascular diseases, many things may come to mind such as fatty foods, lack of exercise, and genetics. However, you may not be aware of another possible factor, namely the periodontal diseases. Periodontitis is a bacterial infection of the gum and bone that support your teeth. Recent studies suggest that people with periodontitis may have nearly twice the risk of having a fatal heart attack as those without periodontitis.

There are several reasons why periodontal bacteria may affect your heart. In the presence of gum disease, normal tasks such as chewing or brushing your teeth may allow bacterial poisons to enter the bloodstream and irritate the blood vessel linings and/or enhance the chances that small blood clots will form and clog your arteries. Another possibility



is that the inflammation caused by periodontitis may release chemicals into your blood that contribute to the buildup of fatty deposits inside your heart arteries.

Like high cholesterol, an elevated level of C-reactive protein (CRP) could be another reason as to why periodontitis could be a risk factor for cardiovascular disease. Periodontal diseases appear to trigger the liver to make proteins such as CRP that inflame arteries and cause blood clots that can lead to heart attacks.

For some time we've known that periodontal diseases can also aggravate certain kinds of existing heart conditions, especially when there has been previous damage to the heart. According to the American Heart Association, patients at risk for a disease called infective endocarditis may need to take antibiotics prior to dental procedures. A periodontist and cardiologist are able to determine if a heart condition requires use of antibiotics prior to dental procedures.

Because healthy gums may lead to a healthier body, see a periodontist for a periodontal evaluation, and begin taking care of your oral health today. You may be one beat closer to a happy heart and healthier body.



## *Pregnancy and Periodontal Diseases*

During pregnancy, your body experiences hormonal changes. These changes can affect many of the tissues in your body, including your gums. Your gums can become sensitive, and at times may react strongly to the hormonal fluctuations thereby worsening any gum inflammation that you may have. Without proper oral care and treatment, relatively mild gum problems may turn into a more advanced form of the periodontal diseases called periodontitis. In recent years, you may have heard that periodontitis can contribute to pregnancy complications such as preeclampsia or premature delivery.

## **Periodontitis and Preeclampsia**

Pregnant women who experience periodontal disease progression during their pregnancies may be twice as likely to develop preeclampsia as a complication of pregnancy. Preeclampsia is



characterized by high blood pressure and the presence of protein in the urine. It can put you and your baby at risk for severe complications. In addition to preeclampsia, periodontitis can trigger increased levels of biological fluids which can induce preterm labor.

### **Periodontitis and Preterm Low Birth Weight**

Scientific data suggest that women whose periodontal conditions worsen during pregnancy are at significant risk of having a premature or low birth weight baby. In fact, pregnant women who have periodontitis may be up to seven times more likely to have a baby who is born too early and too small.

The good news is researchers are making strides to find out exactly how the periodontal diseases affect pregnancy outcomes. Several early studies have found that treating periodontitis during pregnancy may significantly reduce the risks of a preterm birth. Preventing gum problems from developing during the stresses of pregnancy also appears to be important in improving the health of both the mother and baby.

Every mother wants to reduce the risk of having an unhealthy baby; therefore, the American Academy of Periodontology recommends that women considering pregnancy include a periodontal evaluation as part of their prenatal care because a healthy mouth will keep you and your baby smiling.



## *Respiratory and Periodontal Diseases*

For some time it's been known that people who smoke, are elderly, or have other health problems that affect the immune system, are at increased risk for developing respiratory diseases like pneumonia, bronchitis, emphysema or Chronic Obstructive Pulmonary Disease (COPD). These problems can be fatal.

Bacterial respiratory infections can be acquired by the inhalation of tiny bacteria-filled droplets from the mouth and throat into the lungs. Periodontal diseases, which are chronic bacterial infections, may be a major factor in the development of bacteria that are found in fluid droplets in the lungs. Once the bacteria are in the lower respiratory tract, they multiply causing infections or worsening of existing lung conditions.



An individual with periodontitis may be half-again more likely to develop the respiratory disorder COPD. Among other problems, COPD results in decreased lung function.

If you are at risk for respiratory disease or periodontal diseases, see a periodontist for a periodontal evaluation – because knowing you have healthy gums may help you breathe easier.



## *Scaling and Root Planing*

Scaling and Root Planing (SRP) is a meticulous cleaning of the root surfaces below the gum line to remove plaque, toxins and tartar from the root surfaces of the teeth. This procedure is more intensive than a routine general dental prophylaxis, or cleaning, which traditionally occurs every six months.

For comfort, your periodontist or dental hygienist may numb the area prior to treatment. Research has consistently demonstrated that SRP reduces gingival inflammation and probing depths, and shifts the bacterial composition living in these pockets from one that is associated with disease toward one associated with health. Therefore, SRP is usually the first mode of treatment recommended for most periodontal patients.

In some cases, systemic antibiotics (usually antibiotic pills) or locally-administered antibiotics



(antibiotics placed into periodontal pockets) are prescribed at the time of SRP procedures. Antibiotics are drugs that fight infections caused by the bacteria. Each time you take an antibiotic you increase your chance of developing drug resistant bacteria, so it is important to take antibiotics only when necessary.

It is important to remember that some patients may not respond optimally to SRP, with or without antibiotics. These patients often respond favorably to advanced periodontal procedures that may include measures aimed at regenerating the natural anatomy that was lost to disease.