

Gingivitis and Periodontitis

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Introduction

The article describes the causes, signs, symptoms, risk factors, treatment and means of prevention of the most common infections that affect the oral cavity: gingivitis and periodontitis, the latter of which can cause tooth mobility and tooth loss.

Gingivitis

Gingivitis is a non-specific infection of the gums that is caused by the accumulation of plaque, which is comprised of bacteria in a film, at the gum line of the teeth. It has been suggested that gingivitis is a 'non-specific' infection, meaning that no single microorganism can be considered as the sole cause of this infection. Plaque forms when bacteria that occur naturally in the mouth combine with saliva to form an adhesive coating over the teeth, called biofilm. Plaque begins to form from the moment you finish brushing your teeth and, if it is left to accumulate undisturbed for longer than two days, it can begin to cause gingivitis. Gingivitis can occur wherever there is plaque build-up, at or below the gum line. If plaque is allowed to accumulate for longer periods of time, it can also solidify on the teeth in the form of calculus, also known as tartar. This often occurs around the lower front teeth and the upper molars, where the openings of the saliva ducts are close to the teeth. Calculus can retain even more plaque than the teeth normally would because its surface is rougher. If, in addition, the teeth are crowded or mal-aligned, they may be more difficult to clean through brushing and flossing and more frequent professional dental cleanings may be needed.

Gums that are affected by gingivitis may be asymptomatic or they may be painful, appear red, glossy, swollen and may bleed spontaneously or when eating or brushing. If you notice that your gums are sore or bleed when you brush and floss, it is a good indication that you might have gingivitis. On the other hand, if you are a smoker, the above-noted symptoms can be

masked because the texture of the gingiva, or gums, changes in smokers so that it does not become red, swollen or painful when there is infection. In the absence of colour and texture changes or bleeding, the only way to determine if you have gingivitis may be to have it diagnosed by a dentist.

Gingivitis can be localized to one area of the mouth, or it can be generalized, involving the entire mouth. This condition can be reversed through proper plaque control by daily brushing and flossing. If plaque has been allowed to accumulate over time, or if it accumulates on calculus, it can become impossible to remove by brushing and flossing alone because older plaque adheres strongly to the teeth and calculus. Therefore, professional tooth cleaning by a dentist or dental hygienist may be necessary in order for it to be removed.

Periodontitis

If gingivitis is not treated, it can develop into a much more serious condition called periodontitis. Periodontitis is one of the main causes of tooth loss in adults. Periodontitis is an infection, which is deeper and more 'aggressive' than gingivitis, and results in the loss of bone which supports the teeth. As a result of this bone loss, deep pockets can develop under the gums or gum recession can occur. If left untreated, the resultant loss of bone supporting the teeth can lead to tooth loss. In addition to the signs and symptoms of gingivitis, tooth mobility and bad breath are signs of periodontitis.

The causes of periodontitis are multi-factorial and include genetic and environmental as well as behavioural factors. Risk factors for periodontitis are gingivitis, smoking, poorly controlled diabetes, lack of good oral hygiene and lack of professional oral healthcare.

Often you will notice bleeding initially, but this might become less noticeable or even stop after a while. This occurs because the infection has progressed deeper below the gumline, forming pockets, rather than because the infection has subsided. While you can see inflammation, plaque, calculus and even recession, you cannot see pockets. Their presence can only be diagnosed by a dentist.

Pockets form when the normal attachment of the gums to the teeth is compromised by inflammation and infection, allowing for bacteria to accumulate deep below the gum line. If you have pockets that are deeper than 3-4 mm, you will not be able to brush the plaque out of them because the bristles of the toothbrush cannot access these areas. In order to remove this plaque, professional cleaning is required. You may even require periodontal surgery when the pockets are too deep to be accessible for professional cleaning and/or when the pockets must be reduced in order to allow for better access for brushing and flossing.

Recession

Recession occurs when both the supporting bone of the teeth and the overlying gum tissues are lost. In addition to occurring as a consequence of periodontitis, recession can also occur in the absence of infection. For example, one can develop recession as a result of aggressive brushing. Treatment options for recession include grafting with gum tissue, usually taken from the roof of the mouth, or with gum tissue substitutes. However, even when recession has occurred, it is not always necessary to have grafting surgery treatment. Other factors, such as inflammation, progressing recession, and tooth sensitivity have to be considered along with aesthetic factors before surgery is undertaken.

How to Care for Your Mouth

You are encouraged to brush your teeth at least twice a day and floss at least once a day. The most important time to brush is before you go to bed. This is because while you sleep there is less saliva in your mouth and you swallow less frequently so there is less saliva available to wash away the bacteria. It is also important that you do not eat after you brush your teeth, especially not any foods that are sticky or sugary.

There is a misconception that eating certain foods can help keep your mouth clean. In fact, there are no foods that clean your teeth. You can accomplish this only through brushing, flossing and other means of mechanical cleaning. Some foods can even increase plaque build-up. Examples of such foods are sticky candies, soft, mushy foods like breads and pasta, as well as sugary foods and sweetened drinks. If you do eat sweets, eat them all at one time rather than throughout the day, and brush your teeth right afterward.

Gingivitis and periodontitis are preventable diseases of the gums. Both may be asymptomatic, requiring diagnosis by a dentist. While gingivitis can be reversed through proper cleaning by brushing and flossing and regular professional cleanings, periodontitis requires more extensive treatment, such as deep cleanings and periodontal surgery as well as other treatments that may include the use of antibiotics, or other medications. In order to prevent the onset of gingivitis and periodontitis, it is important to take an active role in your oral hygiene by maintaining healthy gums and teeth.

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