

Want Some Life Saving Advice?

Ask Your Dental Hygienist About Tobacco Use and Periodontal Disease

As if the oral effects of bad breath, stained teeth, loss of taste and smell, mouth (canker) sores, failure of dental implants, and oral cancer weren't enough, tobacco use is implicated in the gum recession, bone loss, and tooth loss associated with periodontal (gum) disease.

Smokers who smoked less than a half a pack of cigarettes per day are almost three times more likely than nonsmokers to have periodontitis, according to a study by researchers at the Centers for Disease Control and Prevention in Atlanta, Georgia. The same study found that those who smoked more than a pack and a half of cigarettes per day had almost six times the risk.

Periodontal diseases, including gingivitis and periodontitis, are severe infections, and if left untreated, they can lead to tooth loss. Periodontal disease is a chronic bacterial infection that affects the gum tissue, bone, and attachment fibers that support the teeth and hold them in place in the jaw bone. It occurs when plaque (a soft, sticky, colorless film of bacteria) forms on the teeth and at the gumline and infects the gum tissue, causing gingivitis (inflammation and reddening of the gums). If periodontal disease is not treated with professional prophylaxis (teeth cleaning) and, in some cases, surgery, it can lead to moderate-to-advanced periodontitis and further destruction of the bone and gum tissue. Tooth loss may occur and teeth may have to be removed.

Recent studies have shown that tobacco use in the form of cigarette, cigar, or pipe smoking,¹ as well as smokeless tobacco use,² are significant risk factors in the development and progression of periodontal disease. In turn, research links periodontal disease to increased risk of heart disease,³ stroke,⁴ poorly controlled diabetes,⁵ respiratory disease,⁶ and premature babies.⁷

Research shows that cigarette, cigar, and pipe smokers have a higher prevalence of moderate-to-severe periodontitis and higher prevalence and extent of attachment loss and

gum recession than nonsmokers. They also have a higher number of missing teeth than nonsmokers; and although their gums bleed less, it is most often because nicotine constricts blood vessels, not because their gums are healthier. In addition, tobacco smokers are more likely than nonsmokers to have calculus (hardened or calcified dental plaque) formation on their teeth, to have developed periodontal pockets, to have lost bone that supports teeth, and to have lost supporting tissue that attaches the tooth to the bone.¹

Tobacco use can also affect the success of periodontal treatment. Cigarette smoke contains over 4,800 chemicals, 69 of which are known to cause cancer. When a smoker lights a cigarette and inhales, these toxins are drawn into the lungs. From

there, they enter the bloodstream, which delivers them to every cell throughout the body, which cannot defend itself from them. Smoking also reduces the delivery of oxygen and nutrients to the gingival tissue, and it interferes with healing and makes smokers less likely to respond to treatment, lengthening the time it takes for treatments to work.

Smokeless tobacco—tobacco or a tobacco blend that users chew, inhale, or suck rather than smoke—also contributes to gum disease. Studies have shown that about 7–27% of regular smokeless tobacco users have gum recession and may lose the bone around the teeth and experience tooth loss.⁸ In addition, smokeless tobacco causes leukoplakia,⁹ white patches that form on the site where the user holds the

The Warning Signs of Periodontal Disease

If you are a tobacco user, consider if you have the most common symptoms of periodontal disease:

- **Bleeding gums during brushing**
- **Red, swollen, or tender gums**
- **Gums that have pulled away from the teeth**
- **Persistent bad breath**
- **Pus between the teeth and gums**
- **Loose or separating teeth**
- **A change in the way your teeth fit together when you bite**
- **A change in the fit of partial dentures**

If you have any of the periodontal symptoms listed above, please consider consulting your oral health care professional for a complete periodontal evaluation to determine if you have periodontal disease. Consider how important it is to stop smoking or stop using smokeless tobacco in order to prevent periodontal disease, as well as other diseases associated with tobacco use. If you are a smoker, please consult your physician regarding a tobacco cessation program. Your dental hygienist is another good source of information about smoking, how to find resources on quitting, and its effect on your oral and overall health. For more information about proper oral health care, as well as brushing-and-flossing instructions, please ask your registered dental hygienist, or visit www.adha.org.

tobacco. Research has also linked chewing tobacco to dental caries (cavities).¹⁰ **April 2005**

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