PERIODONTAL DISEASE AND THE DIABETIC PATIENT

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Diabetes

Diabetes mellitus is a disorder in which blood levels of glucose (a simple sugar) are abnormally high because the body doesn't release or use insulin adequately.

Diabetes affects more than 18 million individuals in the United States and more than 171 million individuals worldwide and has reached epidemic status. Uncontrolled diabetes can impair white blood cell function which increases susceptibility to infection and poor wound healing. Diabetes is also recognized as an important risk factor for more severe and progressive periodontal disease, an infection resulting in the destruction of tissues and supporting bone that form the attachment around the tooth.

Periodontal Disease

Periodontal disease (or gum disease) inflame and destroy the structures surrounding and supporting the teeth, primarily the gums, bone and the outer layer of the tooth root. Periodontal disease is caused mainly by an accumulation of bacteria. Pockets form between the teeth and gums and extend downward between the root of the tooth and the underlying bone. These pockets collect plaque in an oxygen-free environment, which promotes the growth of bacteria.



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Diabetes and Periodontal Disease: Making the Infection Connection

People with diabetes are more likely to have periodontal disease than people without diabetes, probably because diabetics are more susceptible to contracting infections. In fact, periodontal disease is often considered the sixth complication of diabetes. Those people who don't have their diabetes under control are especially at risk.

A study in the *Journal of Periodontology* found that poorly controlled type 2 diabetic patients are more likely to develop periodontal disease than well-controlled diabetics are. Research suggests that the relationship between periodontal disease and diabetes goes both ways - periodontal disease may make it more difficult for people who have diabetes to control their blood sugar and diabetes may make it more difficult for people to control their periodontal disease.

Severe periodontal disease can increase blood sugar, contributing to increased periods of time when the body functions with high blood sugar levels. This puts diabetics at an increased risk for diabetic complications. Diabetes slows circulation. Therefore, diabetics who have periodontal disease should be treated to eliminate the periodontal infection. This recommendation is supported by a study reported in the Journal of Periodontology in 1997 involving 113 Pima Indians with both diabetes and periodontal disease. The study found that when their periodontal infections were treated, the management of their diabetes markedly improved.

Factors Than Link Diabetes to Periodontal (Gum) Disease

- Studies show that people with insufficient blood sugar control seem to develop gum disease more frequently and more severely than people who have good management over their diabetes.
- Diabetes reduces the body's resistance to infection, which increase the probability of the gums becoming infected.
- High glucose levels in saliva promote growth of bacteria that can cause gum disease.
- People with diabetes who smoke are much more likely to develop gum disease than people who smoke and do not have diabetes.
- Poor oral hygiene is a major factor in gum disease for everyone, but it is even more so for a person with diabetes.

Maintenance of a healthy dentition for the purpose of aesthetics, dietary intake and nutrition, quality of life, and overall general health is the ultimate goal of dental health care. In addition to public awareness and education efforts, much of dental care is focused on effective and efficient preventive and therapeutic management of periodontal disease.

Take Steps to Keep Your Mouth Healthy

1. Visit your dentist regularly.
2. Keep your diabetes in check—watch your diet, keep a regular exercise routine, take your prescribed medications and monitor your blood glucose levels.
3. Brush and floss every day.
4. Watch for any changes in your oral health, such as sore gums, bleeding gums, dry mouth, bad breath, loose teeth or a change in the way your dentures fit, and be sure to discuss these changes with your dentist.
5. Keep your dentist up to date about any medications you may be taking.