



Optimal Oral Health

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Oral Health & Diabetes

In the United States, about 17 million people (6 percent of the population) suffer from diabetes mellitus. This disease occurs when the pancreas produces little or no insulin, a hormone that helps the body's tissues absorb glucose (sugar) so it can be used as a source of energy. Diabetes mellitus kills over 400,000 U.S. residents each year, and it is the sixth leading cause of all deaths caused by disease. In Canada, more than 2.2 million residents (7 percent of the population) have diabetes mellitus, and the disease contributes to more than 25,000 deaths a year.

The oral health complications of uncontrolled diabetes mellitus are many, including gingivitis and periodontal disease; salivary gland dysfunction; increased susceptibility to bacterial, viral and fungal infections; caries (tooth decay); periapical abscesses (collections of pus, usually from an infection that has spread from a tooth to the surrounding tissues); loss of teeth; loss of taste; and burning mouth syndrome. Susceptibility to periodontal disease is a very common complication.

Your dentist plays a valuable role in helping patients with poor glycemic control properly treat oral infections and maintain proper oral hygiene. The dentist also may be the first to spot the signs and symptoms of diabetes and refer a patient to a physician for additional evaluation.

Studies have demonstrated that patients with insulin-dependent (Type 1) diabetes, who do not maintain rigorous control of their diabetes, experience more extensive and severe periodontal (gum) disease than patients who do maintain rigorous control of their diabetes. In one study, periodontal disease was 9.8 percent in 263 patients with Type 1 diabetes compared with 1.7 percent in people without diabetes. In 2003, the National Institute of Dental and Craniofacial Research reported that smokers with Type 1 diabetes are 20 times more likely than those without diabetes to develop "destructive" periodontitis (advanced gum disease resulting in loss of tooth-supporting bone).

According to the National Institute of Dental and Craniofacial Research, people with noninsulin-dependent diabetes mellitus (Type 2) are three times more likely to develop periodontal disease than non-diabetic individuals. Although fewer studies of Type 2 patients have been conducted than of Type 1 patients, research indicates that control of chronic infections such as periodontitis actually may improve glycemic control in individuals with Type 2 diabetes. Additional information may be found at: www.nidr.nih.gov.