

How Diabetes Can Affect Your Teeth and Gums

November 8, 2011 by [Beth Gaddis, Web Content Manager](#)

Diabetes affects almost 26 million Americans, which is more than 8 percent of the U.S. population. The condition often requires them to make lifestyle changes, including what they eat, how they exercise and the medications they take. It also requires them to change the way they take care of their teeth and gums.



About one-third of people with diabetes have severe periodontal disease which is causing the gum tissue and bone around the teeth to break down, according to the [National Institutes of Health](#). People with poorly-controlled diabetes had a 2.9 times increased risk of developing [periodontitis](#) than non-diabetics, according to [a large study](#) published in 2002. The same study found people with well-controlled diabetes had no significant increase in the risk of periodontitis.

There are several reasons why poorly-controlled diabetes can increase your chance of getting periodontal disease, said [Dr. Dale Nash](#), a dentist at Coast Dental Wesley Chapel. In the past decade, Dr. Nash has seen an increase in the number of patients with diabetes.

"People with diabetes are generally more susceptible to bacterial infection," Dr. Nash said. "Diabetics have high blood sugar, which basically coats the immune-fighting cells and affects the blood supply to many areas of the body including the patient's mouth." Here's how it works: The poor circulation affects the blood vessels that supply oxygen and nutrients to the gums, called the gingiva, and the cells in your mouth that help fight off infection. If the gums can't get the nutrients they need, then it's harder to fight infection. Also, poor circulation means the blood can't carry away bad bacteria effectively.

Research shows the functions of immune cells in poorly-controlled diabetics are altered in other ways.(1) One kind of protective cell called the neutrophil can't stick to bacteria to kill them as effectively. Two other kinds of cells, monocytes and macrophages, have the opposite issue. They become super-aggressive in the presence of elevated glucose levels and overkill bacteria and healthy tissue. Together, the performances of these cells increase inflammation of the gums. Patients may see bleeding, puffiness or even pus in the gums. This inflammation is what leads to tissue loss and bone destruction, and eventually to tooth loss.

Researchers discovered not only are people with diabetes more likely to develop severe periodontal disease, but periodontal disease may make it more difficult for people who have diabetes to control their blood sugar.(2) Periodontitis is an inflammatory disease and inflammation can make blood glucose levels go up in people with diabetes, according to a study published in the Journal of Periodontology.

"When a patient tells me he or she is diabetic, I tell them, 'You're in a special patient category and we need to know how well you're controlling your diabetes'," said [Dr. Michael Quinn](#), a Periodontist with more than 20 years of experience who practices at several Coast Dental locations in Atlanta. "If they know their level of control for a year and have been stable recently with their sugar levels and are in good general health, then we treat them like everyone else. Diabetics who have poor control typically have deeper pockets, more ligament damage and loose teeth." If left untreated, the periodontal disease will cause the bone holding the teeth in place to be destroyed, and the teeth will become loose and abscess. At this point, the teeth may need to be extracted and replaced. The higher risk of periodontal disease means it is vital that patients keep up with their dental visits. Your dentist may recommend you receive [deeper cleanings](#), and visit the office more than just twice a year to monitor and treat and problems you have. In addition to gum disease, diabetes can also contribute to tooth decay.

People with diabetes have a higher level of blood glucose. The high blood sugar level makes it easier for bacteria to thrive and multiply. Plaque is a colorless, sticky collection of bacteria; if it hardens into tartar and isn't removed in time, then cavities form. "One of the warning signs of diabetes is increased thirst," Dr. Nash said. "Diabetes inhibits

the salivary glands, making the mouth feel dry. Saliva is needed to wash away plaque, so if you have less saliva, you could have more plaque which leads to tooth decay."

Also, some people may try to quench the thirst by consuming more sports drinks, soda or other sugary beverages. This is a common mistake, because it allows the sugar to sit on your teeth, which can lead to more decay. However, there are several steps diabetics can take to minimize the damage to their teeth and gums, Dr. Nash said.

- **Brush three times a day** with a **power toothbrush** or a soft-bristled toothbrush, depending on what your dentist recommends.
- **Floss daily.**
- **Keep your dental visits.**
- **Drink water** instead of sugary drinks.

"Having periodontal disease and diabetes is absolutely manageable," Dr. Nash said. "You can defend yourself against it by increased home care. You just have to work a little bit harder than the average patient. You can't get lax. You need to make sure you're doing it consistently and effectively."

Good advice for everyone.

Dale Nash, DMD, has been a practicing dentist since 2002. He provides general dentistry services to patients starting at age 9. Special services include bone grafting, dental implant restorations, extractions, gummy smile, periodontal disease management, ridge augmentation, root canal therapy and veneers. He practices at the Coast Dental Wesley Chapel office, 5348 County Road 581 in Wesley Chapel, Florida. The phone number is 813-973-1837.

Michael Quinn, DMD, has been a practicing dentist since 1987. He is a Board Certified Periodontist and provides periodontal services to patients starting at age 8. Special services include all periodontal services, bone grafting, crown lengthening, dental implants and restorations, endodontic surgery, extractions, gummy smile treatment, periodontal disease management, pre-prosthetic surgery, ridge augmentation, soft tissue grafts and sinus lift. He practices at several Coast Dental offices in Georgia including ones in Atlanta, Marietta, Fayetteville, Lawrenceville, and Stone Mountain.

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