



**ORAL HEALTH  
& DIABETES**  
by Robert S. Leland, DMD

One's eyes are what one is;  
one's mouth is what one becomes.

- John Galsworthy

Your mouth is an excellent barometer of your health. Indeed, as many as 90% of serious systemic diseases such as heart problems and liver disease can trigger abnormal conditions in the mouth. Thanks to extensive research and development over the past few decades, your dentist or hygienist is equipped to identify direct connections between the condition of your mouth, teeth and gums and your general well-being during a regular checkup or cleaning.

Of major concern to dental professionals today, both in research and practice, is the interrelationship of teeth and gums to diabetes. The American Diabetes Association estimates that 25.8 million Americans are diabetics. In addition, statistics from the Centers of Disease Control and Prevention estimate that some 79 million more Americans have pre-diabetes – blood glucose levels that are higher than normal but not yet high enough to be defined as true diabetes. Pre-diabetes alone can double your risk for cardiovascular disease.

If blood sugar levels are out of control in the body, then blood sugar levels in the mouth are also out of control. Diabetes and your mouth have a common link in blood sugar. The diabetic body either does not produce enough insulin or produces cells that ignore insulin. Insulin enables your body to break down the sugars and starches in food into glucose—blood sugar—and transport it from the blood into the cells to be used as energy. When glucose builds up in the blood, diabetes and its long list of ensuing complications can result – and so can problems in the mouth. With all that blood sugar to feed on, bacteria find a receptive home in which to grow and thrive – and ultimately to attack the protective enamel layer on teeth. Over time, the enamel breaks down, allowing decay to develop.

Uncontrolled blood sugar levels reduce the body's first line of defense against infection — white blood cells — which put oral health at risk in another way. Glucose-fueled bacteria teeming around the gums enable periodontal disease to develop more easily. Diabetes is the one condition that can have a direct and negative impact on infections in the bones and gums around the teeth.

We know that plaque is a major cause of gum disease. But diabetes can also wreak havoc by weakening your mouth's germ-fighting powers. High blood sugar levels add fuel to the fire, enabling gum disease to thrive. At the same time, gum disease produces infection and inflammation that can fuel diabetes, making it harder to control.

Emerging research suggests that the relationship between serious gum disease and diabetes is a two-way street. Not only are people with diabetes more susceptible to gum disease, but studies have found that serious gum disease may have the potential to influence blood glucose levels and may actually contribute to the development of diabetes.

Tooth and gum problems can happen to anyone, of course, and don't necessarily portend diabetes. But there are symptoms to watch for: constant bad breath or a bad taste in your mouth; red, sore, swollen gums; loose or sensitive teeth; bleeding gums; gums pulling away from your teeth; a bite that feels different or dentures that no longer fit well.

Decay or gum disease can be also present without obvious symptoms, especially in early stage. Since statistics show that members of your dental team usually see you more often than

any other healthcare provider, they are best equipped to monitor you during regular dental checkup/cleaning visits. If your visits are regular enough, your dentist or hygienist can often detect oral signs and symptoms of pre-diabetes or diabetes even before blood testing or physical examination has confirmed the diagnosis.

A good rule of thumb is to have a dental checkup at least every six months and regular cleanings two or three times a year – more if prescribed by your dentist or doctor. If you have diabetes or any other medical condition, let your dentist and hygienist know about them. Diabetics have special needs that your dentist and hygienist are best equipped to meet. For your part, keep your team updated on changes in your condition and medications you might be taking. Postpone any non-emergency dental procedures if your blood sugar is not in good control.

You can use regular visits to talk to your dentist about issues that impact your health. Don't be afraid to ask questions like these:

- What are the mouth issues that could signal a systemic problem or disease?
- What do you need to know about my health history to evaluate my oral health?
- Have you seen warning signs of a possible serious condition that I should relay to my primary physician?
- How do my oral health habits — how often I brush and floss — affect the rest of my body, not just my gums and teeth?

Whether you are diabetic, pre-diabetic or simply healthy-and-committed-to-staying-that-way, the National Institutes of Health suggests that you can help maintain your oral health as well as your general well-being by keeping your blood glucose levels as close to normal as possible. Another simple fix is a solid regimen of brushing your teeth at least twice a day, and flossing once a day. Brush for two minutes twice a day with toothpaste with an antigingival/antibacterial ingredient to help prevent gingivitis. If you wear dentures, keep them scrupulously clean to head off oral problems. If you smoke, talk with your doctor about ways to quit.

Lastly, your dental team should be one of your best allies. A recent study of diabetics in the Journal of the American Dental Association found that those who received regular dental care reduced both their diabetes-related ED visits and hospital admissions. For all of us, the connection between good oral health and whole body health is one of the most important reasons to maintain a routine of regular dental care. Stay with it and you'll enjoy not only a healthier smile, but a healthier body as well. **SSM**

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