

# Talking with Patients

## Diabetes and Oral Health

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### WHAT IS IT?

Diabetes, or diabetes mellitus, is a chronic disease in which the body lacks sufficient insulin to metabolize glucose, fat, and protein.<sup>1</sup> Insulin is a hormone that regulates the uptake of glucose into cells, where it is converted into energy. When insulin is not available (type 1 diabetes) or is not properly handled by the body (type 2 diabetes), glucose is not metabolized resulting in high levels of blood glucose, or hyperglycemia. Clinical symptoms of diabetes include polyuria (frequent urination), polydipsia (increased thirst, and consequent increased fluid intake), and polyphagia (increased appetite, increased weight). When not managed properly, diabetes can result in serious health complications such as heart and kidney disease, nerve damage, blindness, and depression. Risk and complicating factors for diabetes include smoking, cardiovascular disease, high cholesterol, obesity, high blood pressure, and lack of regular exercise.

It is estimated that approximately 200 million people worldwide and 20 million Americans suffer from diabetes, which is the third leading cause of death in the United States.

Although diabetes is most commonly diagnosed in adults, in recent years the incidence of diabetes in children and teenagers has increased dramatically.

### HOW DOES IT AFFECT YOUR ORAL HEALTH?

Poorly controlled diabetes is associated with gingivitis, periodontitis, bone loss, poor wound healing, and bacterial or fungal oral infections. Diabetic nerve damage can cause oral numbness and/or burning symptoms. Diabetic patients might also have xerostomia, or dry mouth, which can lead to a substantial increase in caries rates. Because of these many oral manifestations, the dentist can play an important role in the early diagnosis of the disease.

Your dentist should be informed if you are being treated for diabetes. Dental patients who are being treated for type 1 diabetes might go through periods of severe hypoglycemia and hyperglycemia, and any dental treatment should be done only after careful consultation with the patient's physician. Type 2 diabetes patients who are undergoing treatment and present no complications require little

attention prior to routine dental treatment.

Morning dental appointments are usually better for diabetic patients, who should take their insulin and eat a regular breakfast to avoid an insulin shock from occurring during a dental appointment. If an insulin reaction occurs during a dental visit, patients should take orange juice, soda, or any form of glucose.

Based on the patient's physician's recommendation, antibiotic prophylaxis can be considered for some diabetic patients prior to extensive dental surgery.

### CONCLUSIONS

Diabetes is a serious and prevalent disease when not properly treated that can result in devastating effects for patients and their families. Because of its many oral manifestations, your dentist can be instrumental in the early diagnosis of diabetes. Management of diabetes requires proper medical monitoring, medication, and lifestyle changes, mainly relative to diet and physical activity.

Routine professional checkups and cleanings, and a rigorous home care

oriented toward preventing dental caries and periodontal disease are paramount for diabetic patients. For more information on prevention of dental caries and periodontal disease, please refer to previously published Talking with Patients.<sup>2,3</sup>

#### DISCLOSURE

The author does not have any financial interest in the manufacturers whose materials are discussed in this article.

#### REFERENCE

1. Little JW, et al. Dental management of the medically compromised patient. 6th

ed. St. Louis (MO): Mosby; 2002, pp. 248–70.

2. Ritter AV. Talking with patients: dental caries. *J Esthet Restor Dent* 2004;16:76.
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