



▶ Patients with Diabetes Making Risky Choices



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From Your Dentistry for Diabetics (DFD) Professional  
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# Informed

*The truth about the diabetic & oral care*

## Preventive Oral Care for DM: Why Not?

It has been said before. Oral health and diabetes are inextricably linked. Researchers, dentists, the surgeon general, and most recently the American Diabetes Association (at the 2008 ADA Congress) have acknowledged the close relationship between diabetes and oral health.

The fact that patients with diabetes contract periodontal disease up to 3.4 times more often than non-diabetics underscores the connection between diabetes, poor metabolic control and oral health. However, it appears this message is not improving the oral health and hygiene

habits of the average diabetic. According to a behavioral study about diabetics and oral health (published in the Journal of the American Dental Association 2001 ), though diabetic patients are at an increased risk of suffering from oral health diseases, they tend to visit the dentist less often than non-diabetics for preventive examinations.

We will discuss the reasons why in this month's newsletter.



**Did You Know?**

**Per capita medical expenses for the average patient with diabetes are 2 to 10 times higher than those of non-diabetic patients.**

# Patients with Diabetes Mellitus Making Risky Choices

Patients suffering from diabetes mellitus are vulnerable to oral health complications at a rate three to four times higher than systemically healthy subjects. Vascular complications, metabolic control, length of time living with the disease, as well as lifestyle and oral hygiene are all contributing factors in the increased oral comorbid rate for diabetic patients. Oral complications include tooth loss, bone loss, gingivitis, periodontitis, xerostomia and soft tissue pathologies.

To prevent these oral complications and to enable greater systemic health, the DM patient should receive preventive treatment and frequent examinations in order to:

- Assess oral health vulnerability before it reaches advanced stages
- Implement rigorous oral care treatment to prevent periodontal disease and soft tissue pathology
- Counsel on proper oral hygiene
- Support tobacco cessation goals
- As well as overall physician-directed managed goals

All of this may make good sense. However, according to the aforementioned oral health behaviors study, published in the Journal of the American Dental Association (2001), diabetic patients continue to use tobacco products at a rate similar to non-diabetics (19.0 percent vs. 21.8 percent), oral hygiene habits are also similar.<sup>1</sup> While diabetic subjects were

less likely to visit the dentist for regular, preventive examinations.

## Why ...?

These oral health and lifestyle choices may have a devastating affect on oral health and systemic health (due to what some researchers believe is the two-way relationship between poor oral health and metabolic control for the diabetic ).<sup>2-4</sup> Smoking, for example, may increase risk of periodontal disease 600—1000%.

With all the available data highlighting the importance of proper oral hygiene — **why would the diabetic patient avoid preventive exams and continue tobacco use?**

The answer comes from two sources. Researchers believe that lack of awareness may be the most important contributing factor. When test subjects were asked if they believed their oral health would be better if they did not have diabetes, 44.1% said “No” and 37.4% said they were “Not sure”. Just 18.2% answered “Yes”.<sup>5</sup>

And when asked if they had ever been told by a health care professional that they should take extra preventive care for oral health, 67.7% said “No”. What is more startling is the response subjects gave to the question, “Does your dentist know that you have diabetes?” The subjects responded “Yes” at a rate

**TABLE 4**

DIABETIC SUBJECTS' RESPONSES TO THREE ORAL HEALTH KNOWLEDGE QUESTIONS.			
QUESTION	RESPONSE (%)		
	Yes	No	Not Sure
Does your dentist know that you have diabetes?	88.8	3.1	6.4
Do you believe that your oral health would be better if you did not have diabetes?	18.2	44.1	37.4
Have you ever been told by a health care professional that you should be extra careful to brush, floss and see a dentist often because you have diabetes?	27.1	67.7	5.1

Source: DIABETES AND ORAL HEALTH PROMOTION: A SURVEY OF DISEASE PREVENTION BEHAVIORS; Journal of the American Dental Association., 2000. Vol. 131, No. 9, 1333-1341.

# Cost, Lack of Awareness at Root of Patient Choices

**TABLE 3**

ORAL HEALTH PERCEPTIONS AND ATTITUDES OF DIABETIC AND CONTROL SUBJECTS.		
VARIABLES	DIABETIC SUBJECTS	CONTROL SUBJECTS
<b>Do You Feel That You Get Dental Care as Often as You Should? (%)</b>		
Yes	59.1	61.4
<b>If No, What Is the Reason You Do Not Visit the Dentist More Often? (%)<sup>§</sup></b>		
Transportation Problems	3.2	0.0
Fear or Anxiety	8.9	12.8
Forgot	5.7	14.1
Family Responsibilities	1.9	1.3
Costs Too Much Money	51.6	39.7
Don't Like My Dentist	2.6	2.6
Afraid I'll Need a Filling	2.6	7.7
Can't Miss Work	5.1	2.6
Find Visiting a Dentist Unpleasant	4.5	12.8
Get Tired of Doctors Appointments	2.6	1.3
Afraid of Getting a Disease Like AIDS	1.3	1.3
Other	10.2	3.9
* $\chi^2$ test $P = .002$ . † Bonferroni-adjusted probabilities. ‡ $\chi^2$ test $P < .001$ . § $\chi^2$ test $P < .022$ .		

of 88.8%.<sup>6</sup> Which suggests that a large number of dentists, who treat diabetic patients, either are unaware of the increased risk of oral health sequelae for diabetics or they are not counseling patients adequately regarding on the subject.

While it is understandable that physicians, diabetic counselors and nurses may not be aware of the importance of preventive oral care for DM patients (afterall, studies are still underway to fully understand the relationship between oral and systemic health), it is an unacceptable lapse in responsible care for a oral health practitioner to be unaware of these added risks.

## Reason No. 2

The second-most often cited reason why diabetic patients opt not to get the preventive care they need is based on financial impact. Per capita medical expenses for the average patient with diabetes is 2 - 10 times higher than that of non-diabetic patients.<sup>7</sup>

For those patients who realize they need to participate in added preventive oral care exams and treatment,

but do not get it, 51.6% say “It costs too much”. While just 39.7% of systemically health control subjects said cost was the reason they did not visit the dentist often enough.

Ironically, that choice could cause greater financial impact the diabetic, due to oral disease advance, and impact on long-term health, periodontal and systemic.

Common characteristics of diabetes, such as delayed wound healing and inhibited immune response, etc. create an environment in which pathogens, not only cause oral diseases at a rate 2-4 times greater based metabolic control factors, and 6-10 times greater occurrence if the patient is a tobacco user), they may reach advanced stages more quickly. This results in a higher rate of tooth loss and endentulous, more extensive aveolar bone damage and soft tissue trauma, and advanced infection. Treatment for advanced oral disease may include costly surgical treatments and

longer term use of chemical treatments necessary to manage oral sequelae.

Clearly preventive examinations designed to identify early-stage oral disease are far less costly to the DM patient than invasive surgery and antimicrobial treatments.

### Prevention

As with all complications associated with diabetes mellitus, prevention of oral health sequelae—tooth loss, periodontal disease and soft-tissue disease—is dependent upon effective prevention strategies, including:

- Early diagnosis
- Proper oral hygiene
- Proper diet
- Rigorous glycemic control measures
- Smoking cessation

To that end, it is recommended that physicians, counselors and other diabetic care professionals educate patients about the increased risk of oral

health complications associated with diabetes.

When referral is necessary, ensure that the dentist to which you are referring patients is trained specifically in oral care, counseling and overall program support methodologies for diabetic patients.

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## WHAT'S CLICKING? Dentists Trained in Diabetic Care

*Dental* practitioners, who treat and care for the diabetic patient have a responsibility to understand the interrelated nature of diabetic comorbidity — its impact on oral health, as well as the role oral health plays in systemic health. These dentists must acquire the knowledge and skills needed to support the primary care team while educating and treating the patient for oral health diseases.

### What to Look For

Dentists who have been properly trained to treat diabetic patients:

- Is experienced in testing and monitor of A1C levels
- Provides counseling on the role of diet and oral health in management goals

- Understands drug interaction of prescription drugs — eg., steroidal treatment for Lichen planus can lead to hyperglycemia, if not managed carefully, and there are more 400 meds in use today that produce dry mouth, which can damage to the gum tissue.
- Provides smoking cessation counsel
- Provides rigorous preventive oral health treatment
- Identifies oral and systemic health issues early
- Counsels patients on risk of oral sequelae and its impact on system health.

From:

To: