

# Did you know that diabetes increases the risk of gum disease?



**Penny Hodge**

President Elect of the British Society of Periodontology

The British Society of Periodontology, together with the diabetes community website Diabetes.co.uk, is running a campaign to raise awareness of the increased risk of periodontal (gum) disease in people living with diabetes.

Periodontal disease is the sixth most common disease in the world. It affects the tissues supporting the teeth, including the bone. The symptoms of the disease, which have an impact on quality of life, include receding, shrinking and bleeding gums, loosening teeth, discomfort when chewing and, eventually, tooth loss. Periodontal disease is caused by dental plaque, a coating of bacteria on the teeth, which continuously collects around the gum margin. Over half the UK population is affected by periodontal disease in varying degrees, and 10% suffer from the severe form, which is most likely to result in tooth loss.

Diabetes.co.uk and the British Society of Periodontology recently carried out a survey of people living with diabetes. Three quarters were found to have experienced bleeding gums when brushing, which is an early sign of periodontal disease. The good news, however, is that periodontal disease can be prevented and easily treated in the early stages.

## How are gum disease and diabetes linked?

Poorly managed blood glucose levels cause damage to the nerves, blood vessels, heart, kidneys, eyes and feet. The gums can also be affected. Reduced oxygen and nutrient levels, which occur in the gums as a result of damage to the blood vessels, make infection of the gums and the bone supporting the teeth more likely. Poorly controlled blood glucose leads, in turn, to a rise in glucose levels in the saliva, which feeds the bacteria and increases the formation of dental plaque.

Evidence shows that severe periodontal disease can increase blood glucose levels both in people with diabetes and in those without the condition.

Interestingly, there is some evidence to suggest that receiving treatment for gum disease can improve long-term blood glucose levels in people with poor control (Simpson et al, 2015). This in turn lowers the risk of experiencing other common long-term complications of diabetes.

In other words, periodontal disease and diabetes are linked in both directions. Keeping blood glucose levels low and stable can reduce the risk of gum disease, and looking after oral health could help to improve long-term outcomes in people living with diabetes.

## How can healthcare professionals help?

The European Federation of Periodontology and the International Diabetes Federation have recently produced a joint consensus document (Chapple and Genco, 2013). They recommend that every person diagnosed with diabetes should be advised to visit a dentist for a check-up. The individual should tell the dentist that they have diabetes and ask for a detailed gum health examination.

Doctors and specialist diabetes nurses can help to raise awareness by taking the following steps:

- **Ask** all people with diabetes if they know that gum disease might be a complication of their condition and that gum disease can affect their diabetes care.
- **Advise** all people with diabetes to see a dentist for a periodontal health screening, which is available to all NHS patients.
- **Act:** If not registered with an NHS dentist, people living with diabetes can find one through their Local Area Teams in England, NHS Board in Scotland, Local Health Board in Wales or Health and Social Care Trust in Northern Ireland.

Please can you, as healthcare professionals looking after people with diabetes, help us by giving them the information they need to take responsibility for their oral health? In addition to reducing the risk of contracting periodontal

disease, there is a host of benefits to good dental health habits, including reduced risk of tooth decay, fresh breath and increasing self-esteem. It has also been shown that people have less respect for those with poor oral hygiene, which can impact on workplace opportunities.

Posters explaining the key messages on gum health awareness are available both for healthcare professionals and people with diabetes. Patients may also find it useful to visit the British Society of Periodontology website ([www.bsperio.org.uk](http://www.bsperio.org.uk)) for further information, including the recently updated patient information leaflet shown in Figure 1.

Chapple IL, Genco R; Working Group 2 of the joint EFP/AAP Workshop (2013) Diabetes and periodontal diseases: consensus report of the Joint EFP/AAP Workshop on Periodontitis and Systemic Diseases. *J Periodontol* **84**(Suppl 4): 106–12

Simpson TC, Weldon JC, Worthington HV et al (2015) Treatment of periodontal disease for glycaemic control in people with diabetes mellitus. *Cochrane Database Syst Rev* **2015**: CD004714



Figure 1. British Society of Periodontology patient information leaflet on periodontal health. Available to download at: <https://is.gd/Va5DNe>


Further resources



Poster for healthcare professionals explaining the key messages. Available to download at: <https://is.gd/KCu2Hv>



Poster for people with diabetes that can be displayed in waiting rooms. Available to download at: <https://is.gd/QwkkvN>

 **Read more online**

**News**

**New international expert consensus on links between diabetes and gum disease reached at Perio-Diabetes Workshop**

Available at: <https://is.gd/perio>

**Article**

**Periodontal disease and diabetes**

Susan Bissett, Andrew Pumerantz and Philip Preshaw provide an overview of periodontitis and its association with diabetes.

*Journal of Diabetes Nursing* **19**: 134–40

Available at: <https://is.gd/bissett>