Supporting diabetic patients with their oral health

A look at the Waterpik®

Dental professionals all understand the importance of good oral health. In order to maintain the best possible level of oral health, we recommend our patients brush for at least two minutes twice a day with a fluoride toothpaste, change their toothbrush regularly, and, of course, visit the dentist every six months for a check-up.

But while these guidelines may be adequate for the average patient in good bodily health, for certain groups a more rigorous oral hygiene regime is required. Diabetics are one such group. According to sources, since 1996 the number of diagnosed diabetics in the UK has risen from 1.4 to 2.9 million. This figure is expected to rise to 4 million by 2025. Not only is diabetes a serious condition affecting patients’ general bodily health, it can greatly impact upon their oral health as well.

Research would suggest that people with diabetes (either type 1 or type 2) are at a higher risk of developing oral health problems such as gingivitis and periodontitis. This is because diabetics are generally more susceptible to bacterial infection, especially if they are uncontrolled, and oral infection can start at a younger age and be more severe. As such it is vital that patients in this highly susceptible group give extra attention to their oral health.

For diabetic patients, visiting the dentist regularly becomes even more of an essential activity and regular sessions with the hygienist are highly recommended. For the best oral health outcomes, diabetic patients should include periodontal care as part of their daily oral hygiene routine.

Traditionally, dental practitioners will often recommend flossing as a useful adjunct to regular brushing. If carried out correctly, floss can still be a useful tool for some patients; however, the number of cases in which floss is actually used by patients is surprisingly limited. For a start, dental floss is notoriously difficult to use correctly, and patients with dexterity problems in particular, it just isn’t suitable at all. This has led to many questions being raised regarding floss, its efficacy and its effectiveness in supporting good periodontal health.

Indeed, in a study on the benefits of floss in reducing interproximal caries, Hinojel and colleagues identified 144 different studies, of which only 11 were thought appropriate for inclusion in the final report. With the report suggesting a significant lack of evidence actually supporting the use of floss it would seem prudent then for clinicians to change the oral health messages from “flossing” to “interdental cleaning” and so focus chair-side education on patient preference and clinically proven outcomes. Similarly, Bercher and colleagues reported a lack of evidence for adding flossing to tooth brushing in reducing gingival inflammation and bleeding.

With this in mind, clinicians should consider the alternative products available to support patients’ oral health. Of the many different products available, one of the most effective is the Water Flosser. Although, as with most oral healthcare products, there are a number of brands available on the market, however, they don’t all provide the same scientific evidence. Furthermore it should be remembered that studies conducted on one brand are not transferable to other brands.

First developed by Water Pik Inc in the middle part of the 20th century, Water Flossers (also known as oral irrigators or dental water jets) are a highly effective, clinically proven alternative to dental floss. Scientific evidence suggests, for example, that Water Flossers significantly reduce plaque biofilm from tooth surfaces, and the Waterpik® Water Flosser in particular has been proven to remove 99.9 per cent of plaque biofilm after only a three-second treatment. Indeed, Waterpik® Water Flossers have also been shown to reduce gingivitis, bleeding, probing pocket depth, host inflammation mediators and calculus. This means Water Flossers are particularly suited for diabetic patients who must take particular care with their oral health.

When compared with traditional string floss, the benefits of a high quality Water Flosser are quite remarkable.

In 2005 for example, Barnes et al. compared manual or power brushing alongside use of a market-leading Water Flosser with a classic jet tip to manual brushing and flossing. Results demonstrated that regardless of toothbrush used, the addition of a Water Flosser was better at reducing gingivitis and gingival bleeding compared to brushing and flossing.

In 2008, a study by Sharma et al. evaluated the efficacy of Waterpik® Water Flossers using a specialised orthodontic tip with adolescents in fixed appliances compared to flossing. Results in this study showed that the Waterpik® Water Flosser was significantly better at brushing and flossing or brushing alone for reducing plaque biofilm and gingival bleeding.

Most recently, Rosema et al. compared manual brush plus a top-selling Water Flosser with either a standard jet tip or a new prototype tip to manual brush and flossing. At four weeks, it was evident that either type of tip used alongside manual tooth brushing was significantly better at reducing bleeding than flossing. Notably, the flossing group showed no difference statistically or numerically from baseline to four weeks. The 15 per cent reduction seen at two weeks reverted back to baseline (0 per cent) at four weeks.

Given the significant weight of evidence supporting the use of Waterpik® Water Flossers, it is clear that patients from high risk groups can benefit greatly from adopting a Water Flosser into their regular oral hygiene regime. For best results, and to ensure diabetic patients receive the best possible care, clinicians should recommend brands and products that are supported by scientific evidence-based reports.