

# Waterpik® Water Flossers Significantly Reduce Plaque Biofilm, Gingivitis, and Bleeding for Patients with Diabetes

## Comparative Evaluation of Adjunctive Oral Irrigation in Diabetes

Al-Mubarak S, Ciancio S, Aljada A, Awa H, Hamouida W, Ghanim H, Zambon J, Boardman T, Mohanty P, Ross C, Dandona P. *J Clin Periodontol* 2002; 29:295-300.

### Objective

To compare the addition of the Waterpik® Water Flosser with the Pik Pocket™ subgingival irrigation tip to routine oral hygiene on the periodontal health of people with diabetes.

### Methodology

52 subjects with periodontal disease and either type 1 or type 2 diabetes participated in this 3-month randomized clinical trial. All subjects had scaling and root planing at baseline then were assigned to either add a Waterpik® Water Flosser with the Pik Pocket™ Tip twice daily to their oral hygiene routine or to continue practicing their regular oral hygiene routine. Periodontal health was measured via clinical and metabolic parameters.

### Results

Adding the Waterpik® Water Flosser was superior to normal oral hygiene in reducing the traditional measures of periodontal disease: plaque biofilm, gingivitis, and bleeding on probing. The Water Flosser also reduced the serum levels of pro-inflammatory cytokines IL-1 $\beta$  and PGE<sub>2</sub>, as well as the level of reactive oxygen species, a bacteria and host-mediated pathway for tissue destruction implicated in the pathogenesis of over 100 conditions.

### Conclusion

The Waterpik® Water Flosser provided significant periodontal health benefits, both clinically and biologically to people with diabetes.

