



Plaque Removal

in vivo study

Comparison of plaque removal by Sonicare For Kids and a manual toothbrush in children aged 4–7 years in a professionally applied toothbrushing study

Pelka M, DeLaurenti M, Master A, Jenkins W, Strate J, Wei J, Schmitt P. International J Pediatric Dent. 2009; 19:s1

Objective

To compare the plaque removal efficacy of Philips Sonicare For Kids at “high” and “low” settings and Oral-B Stages 3® manual toothbrushes in a professionally applied brushing session simulating one and two minutes of brushing time in children aged 4–7 years.

Methodology

Sixty-eight healthy children (38 females, 30 males; mean age 5.3 years) participated in an IRB-approved single-blind, randomized, split-mouth-design study. Informed consent/assent (with parent) was obtained. Subjects were screened for eligibility (Turesky-Modified Quigley-Hein Plaque Index (TPI) >1.8). Eligible subjects were randomized to Sonicare For Kids “high,” Sonicare For Kids “low” and a manual toothbrush by quadrant and were brushed accordingly by clinical hygienists. TPI was scored at one- and two-minute interval equivalents by quadrant by a blinded examiner. Safety was assessed in oral soft tissue examinations. For statistical analysis, MANOVA for a split-mouth-design was applied and P-values were adjusted using the Dunnett-Hsu adjustment.

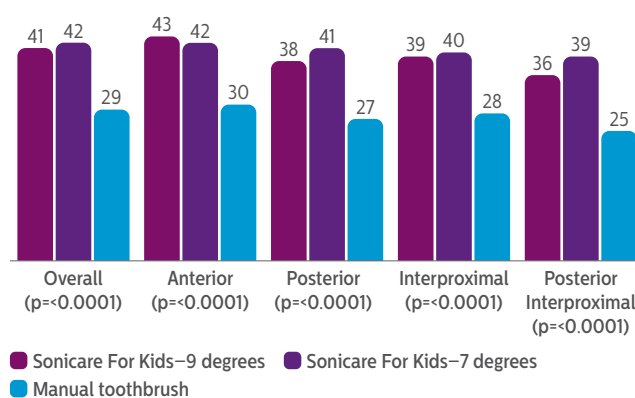
Results

Sonicare For Kids (in “high” and “low” settings) removed significantly more plaque than a manual toothbrush from the dentition overall ($p<0.0001$) as well as in hard-to-reach areas, i.e., the posterior teeth ($p<0.0001$) and the interproximal spaces ($p<0.0001$) at one- and two-minute brushing intervals in children aged 4–7 years with professionally applied brushing sessions. Both toothbrushes were safe to use.

Conclusion

Sonicare For Kids was found to remove significantly more plaque than Oral-B Stages 3 manual toothbrush in children aged 4–7 years with professionally applied brushing. It is also proven safe and gentle on oral tissues.

Adjusted Mean Percent Plaque Reduction, Squirt Prototype 7 and 9 Degrees vs. Manual Toothbrush, 1-Minute Equivalent
% of Plaque Reduction



Adjusted Mean Percent Plaque Reduction, Squirt Prototype 7 and 9 Degrees vs. Manual Toothbrush, 2-Minute Equivalent
% of Plaque Reduction

