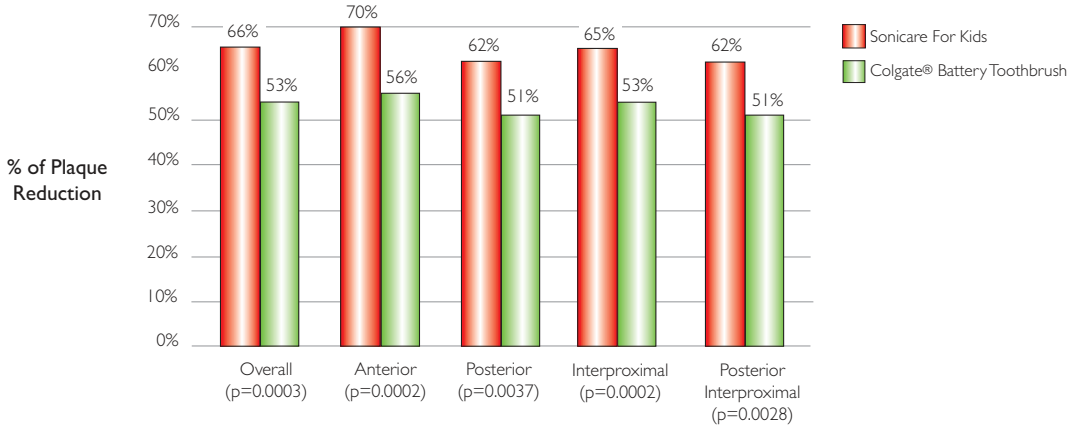
Plaque Removal

in vivo study

Comparison of plaque removal by Sonicare For Kids and a Colgate® children's battery toothbrush in children aged 7–10 years

Payne D, Rimmer P, Olson M, Master A, Jenkins W, Schmitt P, Strate J. *International J Pediatric Dent.* 2009; 19:s1

Objective	To compare the plaque removal efficacy and safety of Philips Sonicare For Kids at "high" setting and Colgate children's battery toothbrushes ("Shrek" handle design) in children aged 7–10 years.
Methodology	Sixty-nine healthy children (mean age 8.4 years) participated in an EC-approved single-blind, randomized, parallel-design study. Informed consent/assent (with parent) was obtained. Subjects abstained from brushing for 26 ± 6 hours prior to examination visits. At Visit 2, subjects were screened for eligibility (Turesky-Modified Quigley-Hein Plaque Index (TPI) >1.8). Eligible subjects were instructed on use of both devices (Sonicare For Kids and Colgate children's battery toothbrush) in alternating manner at home (twice daily for two minutes) for a one-week familiarization period. At Visit 3, baseline TPI was scored followed by randomization and a supervised two-minute brushing session with the assigned device. Post-brushing scores were obtained by scoring TPI. Safety was assessed in oral soft tissue examinations at Visit 3. ANOVA was used for the primary statistical analysis.
Results	Sonicare For Kids removed significantly more plaque than a Colgate children's battery toothbrush from the dentition overall (p=0.0003) as well as in hard-to-reach areas, i.e., the posterior teeth (p=0.0037) and the interproximal spaces (p=0.0002) of children aged 7–10 years. Both toothbrushes were safe to use.
Conclusion	Sonicare For Kids was found to remove significantly more plaque than Colgate children's battery toothbrush in children aged 7–10 years. It is also proven safe and gentle on oral tissues.


% of Plaque Reduction
70%
60%
50%
40%
30%
20%
10%
0%
66%
53%
70%
56%
62%
51%
65%
53%
62%
51%
Overall (p=0.0003)
Anterior (p=0.0002)
Posterior (p=0.0037)
Interproximal (p=0.0002)
Posterior Interproximal (p=0.0028)
Sonicare For Kids
Colgate® Battery Toothbrush