

Plaque and Gingivitis Efficacy of a Sonic Toothbrush: Two Thirty-Day Independent Studies

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- Objectives** Evaluate clinical efficacy of a sonic toothbrush on plaque and gingivitis, compared to an ADA reference manual toothbrush.
- Methods:** Efficacy was evaluated in two independent clinical studies using a randomized, 30-day, single-blind, parallel design. Healthy subjects with mild-moderate plaque and gingivitis levels were randomly assigned to two treatment groups: twice daily brushing with either a manual toothbrush (MTB) or with BURST Sonic (SB) power toothbrush both using sodium fluoride toothpaste. Both studies followed the same design: at baseline and prior to Days 15 and 20 visits, subjects refrained from brushing 8–12 hours. Exams included oral safety, Modified Gingival Index (MGI), Bleeding Index (BI) and Lobene-Soparkar-Turesky Modified Plaque Index (PI). At baseline only, subjects were re-examined for post-brushing plaque removal. Treatment means, between-treatment means were assessed by Analysis of Covariance (ANCOVA).
- Results:** 92 subjects completed Study 1, 97 completed Study 2. There were no treatment-related adverse events in either study. Statistically significant reductions in gingivitis, bleeding, and plaque were observed for the sonic toothbrush group compared to the manual toothbrush control at Days 15 and 30 ($p < 0.05$). In Study 1, statistically significant reductions in gingivitis, bleeding, and plaque were observed for BURST sonic toothbrush vs MTB control at Days 15 and 30 ($p < 0.001$):
- SB reduced whole-mouth MGI on average of 34.6% at Days 15 and 30 ($p < 0.001$).
 - Bleeding Index scores reduced from baseline by 64.8% and 66.3%.
 - SB provided greater improvement in plaque vs MTB at Baseline post-brush, Days 15 and 30, $p < 0.05$.
- For Study 2: statistically significant reductions were observed for gingivitis-bleeding and plaque for the SB compared to MTB at Days 15 and 30 ($p < 0.05$):
- At Day 15, SB outperformed MTB by 92%, and by 99% at Day 30 for reductions in whole-mouth bleeding scores, $p < 0.03$.

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- Baseline Pre- to Post-brushing plaque reductions for SB were significantly better ($p < 0.001$) than MTB for whole mouth, gumline, and interproximal sites.

Conclusions:

Compared to a manual toothbrush, twice daily brushing with BURST in the whitening mode:

- provides up to 10x greater plaque removal
- yields up to 95% greater plaque removal in hard-to-reach areas (along gumline and between teeth)
- provides healthier gums in just 15 days (2 weeks) and reduces bleeding gums up to 3x more than a manual toothbrush after 30 days
- is clinically proven to remove more plaque than a manual toothbrush
- is clinically proven to reduce bleeding gums (gingivitis) more than a manual toothbrush

Two independent clinical studies demonstrate that BURST sonic toothbrush was superior to a manual toothbrush in reducing gingivitis, bleeding and plaque.





