

# Evaluation of plaque removal efficacy of three power toothbrushes



## ABSTRACT 0934

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## OBJECTIVE

This randomized, single-blind, single-use, crossover study was designed to compare the safety and plaque removal efficacy of the Oral-B® Sonic Complete (OBSC), Sonicare Elite (SE) and Sonicare Advance (SA) power toothbrushes.

## METHODS

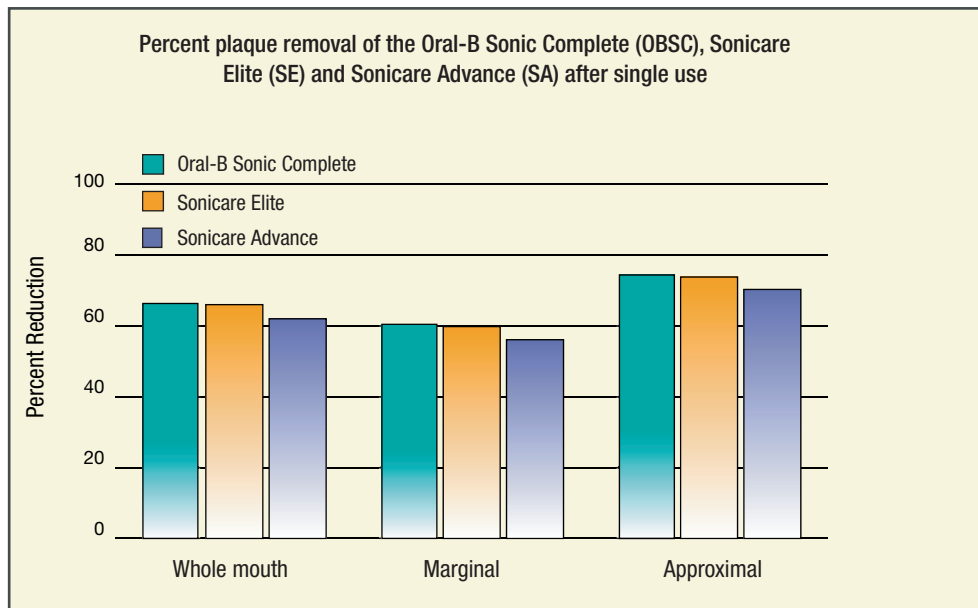
All subjects received an oral prophylaxis and were randomly assigned to treatment sequence. Subjects received their assigned brush with written and verbal instructions for its use and used the toothbrush at home during a 5-7 days practice session. Having abstained from oral hygiene for 23-25 hours, subjects had an assessment of oral soft and hard tissues and plaque levels. At the first clinic visit, only subjects with a whole mouth pre-brushing plaque score of  $\geq 0.6$  based on the Rustogi Modified Navy Plaque Index continued in the study. At each visit, subjects brushed under supervision for 2 minutes without access to a mirror with a controlled amount of toothpaste, and oral tissues were re-examined and plaque was reassessed. One examiner unaware of treatment assignment performed all clinical measurements.

## RESULTS

Sixty-one subjects (17 males/44 females) completed the study. Each toothbrush was found to be safe and significantly reduced plaque levels for the whole mouth, marginal and approximal surfaces after single use ( $t$ -test;  $p=0.0001$ ). OBSC removed significantly more plaque than SA at whole mouth, marginal and approximal surfaces (ANOVA;  $p<0.05$ ). No significant difference was found between OBSC vs. SE and SE vs. SA in plaque removal efficacy after single use.



Oral-B  
Sonic Complete



## CONCLUSIONS

- All toothbrushes were safe to oral tissues during single use.
- The Oral-B Sonic Complete removed significantly more plaque than the Sonicare Advance after a single brushing from all tooth surfaces, especially difficult-to-access approximal surfaces.
- The Oral-B Sonic Complete had equivalent plaque removal efficacy to the Sonicare Elite after single use.