

# Plaque Removal

in vivo study\*

# Comparison of plaque removal by Sonicare DiamondClean and Oral-B TriZone SmartSeries 5000 with SmartGuide

Maclure R, Moore F, Defenbaugh J, Souza S, Jenkins W, Ward M, Liu T, Nelson M. Data on file. 2012.

# Objective

To compare the plaque removal efficacy of Sonicare DiamondClean and Oral-B TriZone SmartSeries 5000 power toothbrushes.

### Methodology

One-hundred nine healthy subjects aged 18 to 65 (mean age, 39.4 years) completed a randomized, cross-over single-blind clinical trial to assess the plaque removal efficacy and safety of Sonicare DiamondClean and Oral-B TriZone SmartSeries 5000 power toothbrushes. Study participants were non-smoking manual toothbrush users who presented with a Lobene and Soparker Modified Plaque Index score of 1.8 following 24 hours abstention from oral hygiene. Eligible subjects were enrolled in the study and randomly allocated to a sequence of power toothbrush product use for a three-day acclimation period followed by a three-day manual toothbrush washout. Subjects returned to the clinic for efficacy and safety assessment at Day 7 (+/- 1 day), having observed 24 (+/- 4) hours oral hygiene abstention. Subjects underwent a plaque evaluation by the blinded examiner and a safety assessment, followed by supervised product use for two minutes and a post-brushing plaque and safety examination. Thereafter, subjects were allocated the second power toothbrush per randomization and repeated the at-home acclimation and washout procedures. Subjects concluded the study at Day 14 (+/- 1 day) following plaque and safety examinations, as at Visit 3. Statistical analysis of the primary endpoint was performed utilizing a mixed-model F-test.

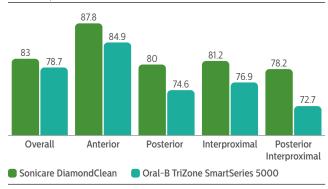
### Results

Sonicare DiamondClean removed significantly more plaque overall (p-value=0.0008) than Oral-B TriZone SmartSeries 5000. Differences were more pronounced in hard-to-reach areas (posterior interproximal; p-value=0.0006). Both toothbrushes were safe for use.

### Conclusion

Sonicare DiamondClean was found to remove significantly more plaque than Oral-B TriZone SmartSeries 5000 when assessed over the entire dentition as well as hard-to-reach areas.

# % of Plaque Reduction



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