



Plaque Removal

in vivo study*

Plaque removal efficacy of two novel Philips Sonicare DiamondClean brush heads

Putt M, Milleman J, DeLaurenti M, Schmitt P. Data on file, 2010

Objective

To evaluate the plaque removal efficacy and safety of the Philips Sonicare DiamondClean standard and compact brush heads, the Sonicare ProResults brush head and a manual toothbrush.

Methodology

A randomized, examiner-blinded, parallel-design study was conducted in a population of 106 healthy adults (81 females, 25 males) aged 18-60 years (mean age: 37) who have been using Philips Sonicare FlexCare with ProResults brush head at home for technique familiarization. These subjects presented to the clinic with 24 hours (+/- 4) of plaque growth and were randomized to use one of the four different test devices. The test devices were ProResults standard brush head, Sonicare DiamondClean standard or compact brush head and ADA reference manual toothbrush. To assess single-use efficacy in plaque removal, plaque scores were assessed before and after brushing using the Turesky-Modified Quigley-Hein Plaque Index. Safety was assessed in an oral soft tissue examination.

Results

Sonicare DiamondClean brush head (standard and compact) removed significantly more plaque than a manual toothbrush overall and in all other regions, including hard-to-reach areas. Sonicare DiamondClean compact brush head removed 100% more plaque in hard-to-reach areas than a manual toothbrush. All products were safe for use.

Conclusion

Both Sonicare DiamondClean brush heads (standard and compact) were found to remove significantly more plaque than a manual toothbrush.

| Region | Device | Mean plaque reduction scores | Performance improvement vs Sonicare ProResults (%) |
|---------|--------------------------------|------------------------------|--|
| Overall | Sonicare DiamondClean Compact | 1.29 | 45% |
| | Sonicare DiamondClean Standard | 1.19 | 33% |
| | Sonicare ProResults Standard | 0.89 | |

% of Plaque Reduction

