Plaque Removal

in vivo study

Comparison of Plaque Removal by Sonicare HealthyWhite, Oral-B® Pulsonic® and Crest Spinbrush® Pro Clean Sonic toothbrushes


Objective

To compare the plaque removal ability of the Sonicare HealthyWhite to the Oral-B Pulsonic and Crest Spinbrush Pro Clean Sonic toothbrushes after a two-minute brushing.

Methodology

Fifty-four healthy adults aged 19-55 years participated in a single-blind, randomized, crossover-design study assessing the plaque removal efficacy and safety of three power toothbrushes. Each toothbrush was used for three days for familiarization followed by four days of manual toothbrush use (for wash out) at home (twice daily for two minutes). At the end of each period, subjects presented with 24 (+/- 3) hours of plaque accumulation and then had an assessment of plaque using the Turesky-Modified Quigley-Hein Plaque Index before and after a two-minute supervised brushing with the assigned toothbrush. Safety was assessed in oral soft tissue examinations prior to all assessments of plaque.

Results

Sonicare HealthyWhite removed significantly more plaque than Oral-B Pulsonic and Crest Spinbrush Pro Clean Sonic from the dentition overall (p<0.0001) as well as in all sub-regions of the mouth (p<0.0001), i.e., the posterior teeth (p<0.0001) and the interproximal spaces (p<0.0001). All brushes were safe to use.

Conclusion

Sonicare HealthyWhite was found to remove statistically significantly more plaque than Oral-B Pulsonic and Crest Spinbrush Pro Clean Sonic when assessed over the entire dentition (overall) as well as in hard-to-reach areas.
Adjusted Mean Percent Plaque Reduction, Sonicare HealthyWhite vs. Oral-B Pulsonic and Crest Spinbrush Pro Clean Sonic

<table>
<thead>
<tr>
<th></th>
<th>Overall (p&lt;0.0001)</th>
<th>Anterior (p&lt;0.0001)</th>
<th>Posterior (p&lt;0.0001)</th>
<th>Interproximal (p&lt;0.0001)</th>
<th>Posterior Interproximal (p&lt;0.0001)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sonicare HealthyWhite</td>
<td>63%</td>
<td>73%</td>
<td>61%</td>
<td>64%</td>
<td>57%</td>
</tr>
<tr>
<td>Oral-B® Pulsonic®</td>
<td>45%</td>
<td>50%</td>
<td>47%</td>
<td>44%</td>
<td>40%</td>
</tr>
<tr>
<td>Crest Spinbrush® Pro Clean Sonic</td>
<td>47%</td>
<td>53%</td>
<td>47%</td>
<td>53%</td>
<td>47%</td>
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