

A 30 Day Clinical Comparison of Two Toothbrushes in Brushing Time



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KEY CLINICAL RESULTS

Based on recorded brushing times over 30 days of at-home use:

- Subjects using the Oral-B® Triumph™ with SmartGuide averaged 137.4 seconds per brushing versus 98.9 seconds for the manual brush group. This represents 38.9% longer brushing on average for the power brush (p=0.003).
- Subjects using Oral-B Triumph with SmartGuide were 5.1 times as compliant with twice a day 2-minute brushing than subjects using the manual brush.
- Both products were well tolerated.

OBJECTIVE

To determine if using a rechargeable power toothbrush with a remote timer encouraged subjects to brush longer versus a manual toothbrush.

Test brushes were:

- Oral-B Triumph with SmartGuide
- Oral-B® Advantage® Plus #40 soft manual toothbrush

MATERIALS AND METHODS

This was a two-treatment, open label, randomized, parallel group trial.

Generally healthy subjects, 18-70 years of age, with at least 16 natural teeth who met entry criteria and gave informed consent were randomized to 1 of 2 groups.

Subjects were given written and verbal instructions to brush unsupervised twice daily according to the manufacturer's instructions at home for 1 week.

After 1 week, subjects returned for the baseline visit, including an oral safety exam. Subjects were verbally instructed to:

- Use the test product exclusively.
- Brush according to the manufacturer's instructions for the power brush and in their usual manner for 2 minutes for the manual toothbrush.
- Use the preprogrammed timer in the power brush and the separate digital timer with the manual toothbrush. Brushing times were recorded to the second on the case report form.
- Maintain a diary form to record dates, times of brushing, and comments.

Before leaving, subjects performed a supervised usage of their assigned product and timer to ensure proper product usage. Crest Cavity Protection toothpaste was supplied to all subjects for use during the study.

Subjects returned to the test facility for their final visit 30 days later.

Average brushing time per subject was used as the response variable.

The 2 treatment groups were compared using a two sample t-test.



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RESULTS

- A total of 39 subjects were included in the analysis.
N=20 for the power brush group. Mean age=46.2 years.
N=19 for the manual brush group. Mean age=44.8 years.
- Over 30 days of at-home use, subjects using the manual brush averaged 98.9 seconds of brushing time as recorded in their diaries. Subjects using the Oral-B Triumph with SmartGuide had an average recorded brushing time of 137.4 seconds. This difference was statistically significant ($p=0.003$).
- Subjects who used the Oral-B Triumph with SmartGuide brushed on average 38.9% longer than subjects who used the manual brush.
- 65.0% of subjects using Triumph with SmartGuide brushed at least 2 minutes compared to 15.8% of subjects using the manual brush.
- Subjects using Oral-B Triumph with SmartGuide brushed for 2 minutes twice a day on 67.8% of days versus 13.3% of days for the manual brush group.
- Subjects using Oral-B Triumph with SmartGuide were 5.1 times as compliant with twice a day 2-minute brushing than subjects using the manual brush.
- Both products were well-tolerated.



CLINICAL COMMENT

Control of supragingival plaque is an essential element in effective oral hygiene programs. New products have been introduced with specific designs to increase the efficacy of plaque removal. One area that may enhance efficacy is increasing brushing time.

The Oral-B Triumph with SmartGuide is the first rechargeable toothbrush designed with a wireless remote display featuring brushing time, brushing mode and a visual pressure sensor. Patients can view their brushing time on the wireless remote display throughout their entire brushing experience. This novel power toothbrush combines the clinically proven oscillating/rotating technology with the unique SmartGuide display to deliver optimal cleaning and compliance. This study demonstrated a significant increase in brushing time and overall compliance to twice a day 2-minute brushing for the Oral-B Triumph with SmartGuide versus a leading manual toothbrush.

