

# ELECTRIC TOOTH BRUSHING

## WHAT'S NEW AND WHAT IS THE EVIDENCE?



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When we are practicing dentistry, often we are used to hearing our colleagues say: 'it works in my hands' or, 'I believe in this material'. However, we need to remember, that even when we feel 'it works in our hands' it is not always necessarily the case. We need to collect data properly and analyze it in a way that will be comprehensive and unbiased. When we are talking about evidence-based practice, there is a pyramid reflecting levels of evidence that we are referring to (Figure 1). This pyramid starts with in vitro lab research

and goes through increasing levels of evidence until it reaches the top of the pyramid with systematic reviews and meta-analysis. In systematic reviews and meta-analysis, we are evaluating or analyzing data from a variety of studies done on a specific topic.

A recent example is a systematic review we published in the April 2020 edition of the Journal of the American Dental Association.<sup>1</sup> In this study we evaluated and analyzed randomized controlled trials comparing oscillating rotating versus other powered toothbrushes. Our findings show evidence that oscillating rotating toothbrushes might remove more plaque and reduce the number of bleeding sites better than other powered toothbrushes.



FIGURE 1

### Systematic Review on Oscillation-Rotation (OR) technology

Another systematic review was done on data collected from randomized controlled studies at P&G showed that 65% of subjects transitioned to a 'generally healthy' gingival state with Oscillation-Rotation (OR) vs. only 20% of Manual brushers so they had 7.5 times higher odds of becoming healthy.<sup>2</sup> The same trend was demonstrated comparing Oscillation-Rotation to sonic toothbrushes - 65% of subjects transitioned from gingivitis to a healthy state when using OR versus 51% for sonic brushes so they had almost two times higher odds of becoming healthy.<sup>2</sup>

### Oral-B® iO™

The Oral-B® iO™ (Figure 2), combines the oscillation rotations from Oral-B's iconic round brush head with the gentle energy of micro-vibrations and is designed to optimize the patient brushing experience, improve patient compliance and maximize clinical efficacy. By enabling excellent home care, the iO can help us support our main goal as dental practitioners, to prevent oral diseases and promote the best possible oral health for our patients.



#### WHAT DOES THE EVIDENCE SAY?

the odds of transitioning from 'not healthy' (≥10% bleeding site) at baseline to 'healthy' (<10% bleeding sites) gingivitis status at week 8 was 14.5 times higher when using the electric brush than when using the manual brush

the odds of transitioning from 'not healthy' at baseline to 'healthy' at week 8 was 4.75 times higher when using the novel OR brush than when using the sonic brush, a highly significant difference

A recent supplement of the International Dental Journal<sup>3</sup> provides several key studies that highlight the qualities of the toothbrush. For example, in a randomized controlled study, designed to compare the Oral-B® iO™ toothbrush to a manual tooth-brush during an 8-week time period, it was reported that the odds ratio to transition from being a gingivitis patient to being a healthy patient after only 8 weeks was 14.5.<sup>4</sup> This means, that the odds of transitioning from 'not healthy' (≥10% bleeding sites) at baseline to 'healthy' (<10% bleeding sites) gingivitis status at week 8 was 14.5 times higher when using the electric brush than when using the manual brush.

In another randomized controlled study that compared the Oral-B® iO™ to a sonic toothbrush during an 8-week time period it was found that the odds ratio to transition from being a gingivitis patient to being a healthy patient after 8 weeks was 4.75.<sup>5</sup> This means, again, that the odds of transitioning from 'not healthy' at baseline to 'healthy' at week 8 was 4.75 times higher when using the novel OR brush than when using the sonic brush, a highly significant difference.

FIGURE 2



The frictionless, smooth magnetic drive system transfers energy to the bristle tips, where it's needed most.



Smart Pressure Sensor guides the user to brush in the effective plaque removal range of 0.8-2.5 Newtons (N), indicated by a red light when brushing too hard and a green light when brushing just right.



Learn more about Oral-B® iO™ at [DENTALCARE.COM/IO](https://DENTALCARE.COM/IO) or scan the QR code.

References:  
 1. Clark-Perry D, Levin L. Systematic review and meta-analysis of randomized controlled studies comparing oscillating-rotating and other powered toothbrushes. J Am Dent Assoc. 2020;151(4):265-275; 2. Grender J, Adam R, Zou Y. The effects of oscillating-rotating electric toothbrushes on plaque and gingival health: A meta-analysis. Am J Dent. 2020;33(1):3-11; 3. Int Dent J. 2020;70 Suppl 1; 4. Grender J, Ram Goyal C, Qaqish J, Adam R. An 8-week randomized controlled trial comparing the effect of a novel oscillating-rotating toothbrush versus a manual toothbrush on plaque and gingivitis. Int Dent J. 2020;70 Suppl 1:S7-S15; 5. Adam R, Ram Goyal C, Qaqish J, Grender J. Evaluation of an oscillating-rotating toothbrush with micro-vibrations versus a sonic toothbrush for the reduction of plaque and gingivitis: results from a randomized controlled trial. Int Dent J. 2020;70 Suppl 1:S16-S21. ©2020 P&G ORAL-27123



# SENSATIONAL CLEAN

Oral-B® iO™ combines Oral-B®'s iconic round brush head with micro-vibrations for cleaner teeth, healthier gums\*, and a WOW experience patients can't resist.

Learn more at [dentalcare.com/iO](https://dentalcare.com/iO).

\*vs a regular manual toothbrush.



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