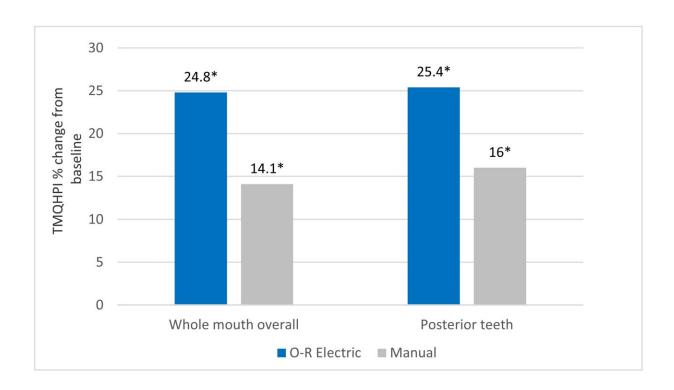


Study finds using electric toothbrushes significantly improves children's dental health

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Turesky Modified Quigley-Hein Plaque Index (TMQHPI) % change from baseline for oscillating–rotating (O–R) and manual brush in 3- to 10-year-old children. *Change from baseline endpoints for both treatments statistically significant P International Journal of Paediatric Dentistry (2023). DOI: 10.1111/ipd.13130



It may be time to go electric when it comes to kids brushing their teeth, according to new research by the Hebrew University-Hadassah Faculty of Dental Medicine.

According to a new randomized, controlled trial published in the *International Journal of Paediatric Dentistry*, oscillating-rotating (O-R) electric toothbrushes were significantly more effective than manual toothbrushes in reducing plaque and gingivitis in young children (ages 3-10). Gingivitis is a common form of gum disease that can lead to tooth loss and other serious conditions.

Dental cavities and gingivitis tend to be widespread problems for <u>young</u> <u>children</u>, affecting up to 74% of those aged nine months to six years. The likelihood of developing a first cavity increases with age, with more than 50% of <u>five-year-old children</u> reporting cavities. Studies also show the prevalence of gingivitis in children to be as high as 91%.

"Young children love to use electric toothbrushes, yet most studies have only focused on whether electric or manual toothbrushes are better for reducing the <u>dental plaque</u> that causes cavities and gingivitis in adults," says Prof. Avi Zini, DMD, dean of Hebrew University-Hadassah Faculty of Dental Medicine. "As long as children use their electric toothbrushes according to manufacturer's instructions, the results should be very beneficial for their <u>oral health</u>."

In the study, researchers followed two groups for four weeks: three- to six-year-old children whose parents brushed their primary teeth, and seven- to 10-year children who brushed their own primary and permanent teeth. Each group used either an Oral-B Kids O-R electric toothbrush or a Paro Junior manual toothbrush.

While brushing with either toothbrush reduced plaque and gingivitis, children had significantly better results with the electric toothbrushes.



After the four-week trial, more than half the children ages 3–6 (55.7%) experienced greater whole mouth plaque reduction and 34.3% greater back of the mouth plaque reduction. The vast majority of children ages 7–10 (94.5%) had greater whole mouth plaque reduction and 108.4% greater back of the mouth plaque reduction. Additionally, whole mouth gingivitis among children ages 7–10 was reduced by 14% and back of the mouth gingivitis reduction was 18.8%.

More information: Esti Davidovich et al, A 4-week randomized controlled trial evaluating plaque and gingivitis effects of an electric toothbrush in a paediatric population, *International Journal of Paediatric Dentistry* (2023). DOI: 10.1111/ipd.13130

Provided by Hebrew University of Jerusalem

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