
Transient Bacteremia Induced By Toothbrushing: Sonicare® vs. A Manual Toothbrush. BHANJI, S*, WILLIAMS BJ, SELLER B, ELWOOD T, MANCL L. University of Washington and Children's Hospital and Regional Medical Center, Seattle, WA.

Several investigations have demonstrated toothbrush-induced bacteremias. Transient bacteremias are well tolerated by healthy individuals but may increase endocarditis risk in patients with certain cardiac conditions. **Purpose:** This study assessed bacteremia levels after brushing with either the Sonicare® electric or a manual toothbrush. **Method:** 50 healthy children receiving dental treatment under general anesthesia with oral intubation were randomly assigned to a manual or Sonicare® group. Plaque levels and gingival health were scored and a blood sample collected. Teeth were brushed for 1 minute and a post-brushing blood sample was drawn. Samples were analyzed for aerobic and anaerobic bacterial growth. **Results:** Gingival health and plaque scores did not differ between groups. No correlation was detected between plaque and gingival scores and occurrence of bacteremia. The frequency of bacteremia was 45.8% with manual brushing: 18.2% aerobic, 9.1% anaerobic and 72.7% both. This differed significantly ($p = .022$) with 78.3% bacteremia in the Sonicare® group: 22.2% aerobic, 22.2% anaerobic and 55.5% both. **Conclusions:** The Sonicare® induced significantly more bacteremia than manual toothbrushing. These results show that vigorous brushing increased bacteremia from one brushing but do not answer whether bacteremia incidence would decrease with a program of vigorous daily brushing; this should be clarified before making brushing method recommendations for patients with cardiac compromise.