

the health of their teeth. Many responses expressed the opinion that dentists should behave toward persons with EDs in a supportive and caring manner, making the individual with ED feel secure and as comfortable as possible.

DISCUSSION

Based on the results of this questionnaire-based investigation, persons with ED are generally concerned about their teeth. They can even be overly occupied with oral hygiene procedures. Some have good experiences communicating with their dentist and want him or her to continue to address EDs during dental

care. Others have less positive experiences and only want dentists with specialized knowledge of EDs to take part in this intervention. The dentist's use of an empathic, caring manner toward ED patients is highly favored.

Dynesen AW, Gehrt CA, Klinker SE, et al: Eating disorders: Experiences of and attitudes toward oral health and oral health behavior. *Eur J Oral Sci* 126:500-506, 2018

Reprints available from AW Dynesen, Univ College Absalon, Parkvej 190, DK-4700 Næstved, Denmark; e-mail: andy@pha.dk

HYGIENE

Decontaminating toothbrushes— or not

 Check for updates

BACKGROUND

Contamination of the toothbrush is an unavoidable reality given that these brushes are used to cleanse a mouth contaminated with bacteria found in food and drink and lives in an environment shared with toilets. Of the 25 household objects evaluated in one investigation, the toothbrush holder ranks second only to the dish sponge. Many methods have been proposed to address toothbrush contamination, but most are not the simple, accessible, or time-effective methods explored in this study.

METHODS

An in vitro study performed under conditions simulating daily life was done to test 3 methods of disinfecting toothbrushes.

Twenty toothbrushes were contaminated using saliva and trypticase soy broth containing *Escherichia coli* and *Enterococcus faecalis*. They were then left untouched at ambient temperature for 24 hours. The disinfection groups consisted of 5 toothbrushes each, with 5 brushes submerged for 60 seconds in 20 mL of 43% vol whisky, 5 brushes cooked in a commercially available microwave oven on an auto-rotating glass dish for 60 seconds at 1400 W, and the final 5 brushes dried with a commercially available hairdryer from a distance of 6 cm for 60 seconds at 2300 W. All 20 toothbrush heads were then immersed in 20 mL of sterile saline solution and sonicated for 60 seconds. Samples taken from each were seeded onto 2 plates to differentiate *E coli* and *E faecalis*. After 24 hours of incubation at 37° C, the samples were evaluated, with the number of colony-forming units counted to document

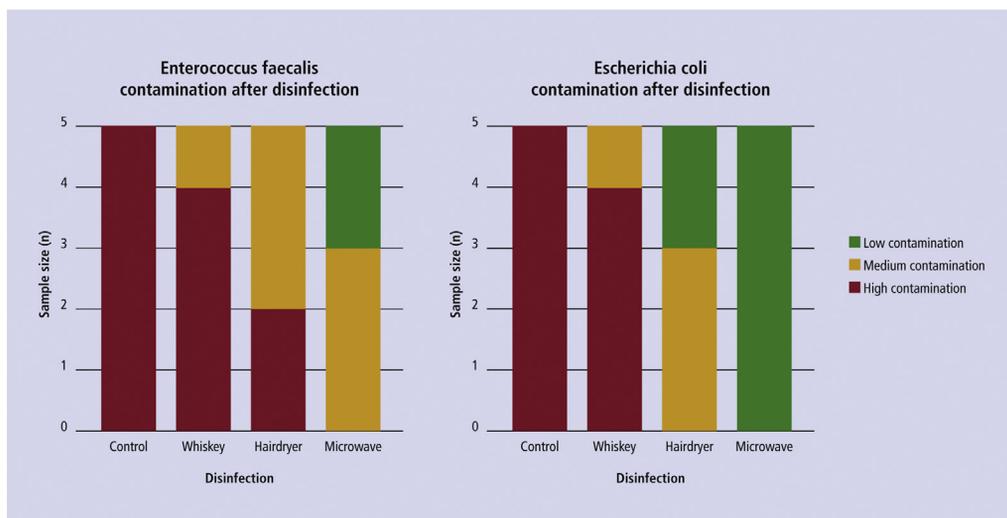


Figure 2. The effect of different disinfection methods on the degree of contamination: *E faecalis* (left) and *E coli* (right). (Courtesy of Patcas R, Zbinden R, Schätzle M, et al: Whisky, microwave or hairdryer? Exploring the most efficient way to reduce bacterial colonisation on contaminated toothbrushes. *Br Dent J* 225:1007-1010.)

the degree of contamination. The results were descriptively analyzed.

RESULTS

Both *E coli* and *E faecalis* were found to contaminate the toothbrushes. The degree of residual contamination was highly influenced by the disinfecting method selected (Figure 2). *E faecalis* was more resistant than *E coli* regardless of the method used. Microwave cooking had the best result, followed by the heat of the hairdryer. Whisky had no significant effect on bacterial growth of the toothbrushes compared to controls.

DISCUSSION

Microwave disinfection was more effective than either hair-dryer heat or the alcohol level of the whisky for reducing the contamination of toothbrushes. The method is easy, brief, and inexpensive. However, a 60-second exposure may not be sufficient.

Clinical Significance

Contamination of toothbrushes is something we tend to overlook, although it's clear that the environment where these brushes live and work is full of contaminants. There is currently no good way to ensure that we have a fresh, untainted toothbrush every time we brush—outside of buying them in bulk and making them single-use utensils. More research is obviously needed.

Patcas R, Zbinden R, Schätzle M, et al: Whisky, microwave or hairdryer? Exploring the most efficient way to reduce bacterial colonisation on contaminated toothbrushes. *Br Dent J* 225:1007-1010

Reprints available from R Patcas, Ctr of Dental Medicine, Univ of Zurich, Clinic of Orthodontics and Pediatric Dentistry, Plattenstr 11, Zurich, 8032, Switzerland; e-mail: raphael.patcas@zzm.uzh.ch

IMPLANTS

Short versus long implants



BACKGROUND

The use of implants is widespread in patients who are partially or completely edentulous. Implant success rates tend to be high, but can be influenced by the presence or absence of sufficient bone volume, among other factors. Bone quality and quantity should be evaluated as part of the preparation for implant placement. Bone augmentation procedures are available to enhance bone width and height in atrophied ridges, but problems attend the use of these procedures, including high cost, added treatment time, increased postoperative morbidity, and a higher risk for complications. Short dental implants, often defined as 6 mm or less in length, have been proposed, but their survival data have been questioned. A systematic review was done to determine the long-term survival and failure rates as well as complications of short implants versus long implants in posterior jaw areas.

METHODS

A search of the MEDLINE (PubMed) and EMBASE databases was performed seeking English-language articles published from January 1, 1990 to June 30, 2017. A manual search of all full-text articles selected was also done. Ten randomized controlled trials (RCTs) were selected, covering 637 short implants (≤ 6 mm) placed in 392 patients and 653 standard implants (≥ 6 mm) placed in 383 patients. The outcomes sought

were survival rates, failure rates, and complications related to each type of implant.

RESULTS

Seven of the 10 studies reported 1 or more adjacent implants were placed in each patient, depending on the width of the edentulous site. These restorations on multiple adjacent sites were always splinted. Three studies only reported on implant-supported single crowns. Retention was by screw or cement in 4 studies, by screw only in 3 studies, and by cement only in 3 studies.

Survival rates for the short implants were between 86.7% and 100%. Those for standard implants were from 95% to 100%; follow-up time ranged from 1 to 5 years. In 2 studies no implant failures were reported for either group. Meta-analysis yielded a risk ratio (RR) of 1.29, which means that short implants had a 29% higher risk of failure compared to longer implants. The prosthesis survival rates were between 90% and 100% for the short implants and between 95% and 100% for the longer implants.

The mean marginal bone levels (MBLs) for the short implants were between +0.06 and -1.22 mm at the follow-up evaluation. For longer implants, the values ranged from +0.02 to -1.54 mm. Most studies reported no statistically significant differences between the 2 groups with respect to MBL.