

Plaque removing efficacy of new and used manual toothbrushes

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The aim of the present study was to evaluate the difference in plaque removing efficacy of new and a used toothbrush used in a professional brushing model.

Ethical review	Approved WMO
Status	Pending
Health condition type	Other condition
Study type	Interventional

Summary

ID

NL-OMON31243

Source

ToetsingOnline

Brief title

new and used manual toothbrushes

Condition

- Other condition

Synonym

inflammation of the gingiva

Health condition

gingivitis

Research involving

Human

Sponsors and support

Primary sponsor: Universiteit van Amsterdam

Source(s) of monetary or material Support: Ministerie van OC&W

Intervention

Keyword: gingival abrasion, manual toothbrush, plaque

Outcome measures

Primary outcome

Endpoint: Standardized measurements and scoring procedures determine the effect of the oral hygiene procedure on levels of plaque and gingival abrasion over the evaluation period

Secondary outcome

nvt

Study description

Background summary

Control of plaque on the tooth surfaces is the most important method of controlling dental disease. A manual toothbrush is the most popular mechanical method of plaque control. In spite of the activity in improving toothbrush type and design, most people still remove only approximately 50% of the plaque present when they brush their teeth (Jepsen 1998). There have been numerous investigations of the effects of toothbrushes, few have investigated the length of time a toothbrush can be expected to last or how the pattern of wear of a toothbrush affects the removal of plaque. The effective life of a manual toothbrush wear is questionable.

Study objective

The aim of the present study was to evaluate the difference in plaque removing efficacy of new and a used toothbrush used in a professional brushing model.

Study design

The study is designed to evaluate the difference in plaque removing efficacy of new and used toothbrushes. After screening, all subjects will receive an ADA flat trimmed reference brush toothbrush, and will be instructed to use it at home, brushing twice daily for 2 minutes on each occasion, for the duration of the pre-trial (12 weeks). At the second visit, subjects return after abstaining

for 48 hours from all oral hygiene procedures. Plaque (Quigley & Hein) and gingival abrasion (GA) will be assessed. Subjects will be professionally brushed by a dental hygienist with both a new and the brush used by the subject during the pre-trial phase. Brushes will be randomly allocated to either the first and the third, or the second and the fourth quadrant. Thirty seconds of brushing time is allowed for each quadrant, bringing the total brushing time to 2 min. After this procedure all subjects will be reassessed for both plaque and gingival abrasion.

Intervention

Brushing with a used toothbrush in comparison to a new toothbrush in relation to plaque removing efficacy.

Study burden and risks

Risk for subjects: none.

Contacts

Public

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Trial sites

Listed location countries

Netherlands

Eligibility criteria

Age

Adults (18-64 years)

Elderly (65 years and older)

Inclusion criteria

At least 5 evaluable teeth in each quadrant

Exclusion criteria

Overt signs of untreated caries

Pockets exceeding 5mm

A history of usage of antibiotics during three months preceding the study

Presence of acute oral lesions

Orthodontic banding

Partial dentures

Limited number of crowns or bridges.

Study design

Design

Study type:	Interventional
Intervention model:	Parallel
Allocation:	Randomized controlled trial
Masking:	Single blinded (masking used)
Control:	Active
Primary purpose:	Prevention

Recruitment

NL	
Recruitment status:	Pending
Start date (anticipated):	01-05-2007
Enrollment:	60

Type:

Anticipated

Ethics review

Approved WMO

Application type:

First submission

Review commission:

METC Amsterdam UMC

Study registrations

Followed up by the following (possibly more current) registration

No registrations found.

Other (possibly less up-to-date) registrations in this register

No registrations found.

In other registers

Register

ID

CCMO

NL17282.018.07