UNIVERSITY OF MINNESOTA
Driven to Discover℠

Improved Toothbrush Design

IP Status: Issued US Patent; **Application #:** 14/829,141

Lowers Gingival Recession Risk

A unique toothbrush head cleans teeth and gums more effectively by cleaning all surfaces of the tooth in the same motion. The innovative design uses stiffer, curved bristles that perfectly conform to each tooth's shape, allowing the toothbrush to clean the grooves, under the gums and even surfaces between teeth. The redesigned cleaning head minimizes force on gingival tissue and dentin, thereby lowering the risk of gingival recession and dentinal abrasion.

MN-IP Try and Buy

Try

- Trial period is six months
- Trial fee is $5000 for a six month trial
- Trial fee is waived for MN companies or if sponsoring $50,000+ research with the University
- No US patent expenses during trial period

Buy

- $25,000 conversion fee (TRY to BUY)
- Royalty rate of 3% (1.5% for MN company)
- Royalty free for first $1M in sales

Better Interproximal and Sub-gingival Removal

The new toothbrush is easier to handle than a conventional toothbrush, especially for the elderly, children or those with arthritis or poor dexterity. It places the bristles in the optimal position on the tooth – and with the correct amount of force – to effectively and safely remove sub-gingival and interproximal plaque.

BENEFITS AND FEATURES OF IMPROVED TOOTHBRUSH CLEANING HEAD:

- Cleans all surfaces of the tooth, even traditionally hard-to-reach areas
- Lessens risk of damaging gums and teeth
- Easier to use, especially for patients with poor dexterity
- Effectively and safely removes sub-gingival and interproximal plaque

Phase of Development - Proof of concept- Licensee will receive rights to practice the intellectual property (patent application) for the purposes of developing and manufacturing a commercial product.

Researchers

Richard Nadeau, DDS

Technology ID

20160026

Category

Life Sciences/Medical Devices

Learn more

Clinical Specialist, Division of Comprehensive Care, Department of Primary Dental Care

External Link (dentistry.umn.edu)