VCU Innovation Gateway
Office of the Vice President for Research and Innovation

The Proxy-Flosser

Improving daily flossing for people with braces

Proper dental hygiene is an important daily habit to ensure teeth cleanliness and overall oral health. Flossing is a key step in maintaining proper gum and tooth health. Patients undergoing orthodontic treatment (braces) are particularly susceptible to changes in mouth microbiota and are urged by orthodontists to maintain particularly high levels of oral hygiene to ensure braces and teeth are thoroughly cleaned. Unfortunately, due to the tediousness and inefficiency of the flossing methods currently available for braces, patient compliance is often lacking with adherence rates in the low 20s.

The technology

A VCU dental student has developed a novel interproximal brush floss pick known as the Proxy-Flosser to reduce the time needed to completely floss and clean both the teeth and brackets of the braces. This device combines the best characteristics of an interproximal brush with bristles for braces cleaning, and the widely used dental floss picks that increase leverage and ease of flossing for people without braces. This device has been designed to be easily manufactured with soft rubber bristles in the inferior arm of the floss pick. The increased efficiency is expected to increase the patient compliance and overall oral hygiene for patients undergoing orthodontic treatment.

Figure 1. (Top) Diagram of CAD design of the combination interproximal brush and floss pick Proxy-Flosser. (Bottom) Proxy-Flosser method of action animation.

Benefits

- Low cost
- Increased efficiency
- Easier to use

Applications

- Flossing
- Braces cleaning

Patent status:
Patent pending: U.S. and foreign rights are available.

License status:
This technology is available for licensing to industry for further development and commercialization.

Category:
Biomedical

VCU Tech #:
20-158

Investigators:
Christina Gordon

Contact us about this technology

Brent Fagg, MS
Senior Licensing Associate
bfagg@vcu.edu
(804) 827-2211