

Fluoride Treatment for Orthodontic Patients (20130331)

IP Status: Issued US Patent; **Application #:** 14/633,902

Localized Fluoride Treatment Device for Patients with Braces

A dental hygiene system for orthodontic patients to provide fluoride to areas of teeth normally blocked by braces has been developed. The system is made of a plastic clip that attaches to the brackets and provides localized fluoride treatment for the teeth in areas that are hard to reach with conventional cleaning techniques. The device is easy, convenient, and provides eight weeks of tooth protection before being easily detached and replaced. This technology is the first of its kind and is a revolutionary step in dental hygiene and maintenance for orthodontic patients.

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Technology ID

20130331

Category

Life Sciences/Medical Devices

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Fluoride Protects Against Dental Demineralization

Fluoride can protect teeth from the effects of demineralization that occur when the enamel coating is damaged or wears away after coming into frequent contact with acids naturally occurring in food and drinks. It can often remineralize teeth that have been damaged by strengthening the outer layer. This fluoride interaction normally occurs during tooth brushing, when the fluoride in toothpaste comes into direct contact with the teeth. However, for patients with fixed orthodontic braces, reaching behind wires and near brackets to brush the teeth is difficult, leading to increased demineralization and decay in those areas. There is currently no device that is able to easily clean and protect the areas of teeth near braces.

BENEFITS AND FEATURES OF ORTHODONTIA FLUORIDE DEVICE:

- Attaches conveniently to braces and provides fluoride to the difficult to reach tooth areas
- Provides protection from tooth demineralization for eight weeks
- Represents a completely new dental hygiene product

Phase of Development Proof of Concept

Researchers: Nathaniel Phillips, Katherine Lorentz, Sam Schmitz, James Sieracki, Nathan Lockwood

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