



Queen's Building, Queen Mary University of London, Mile End

Combat the pain of sensitive teeth

A revolutionary new toothpaste is primed to bring long-term relief to millions of adults and children who suffer from sensitive teeth

The result of more than a decade of scientific research and development, a British-designed toothpaste is the first to gain accreditation from the Oral Health Foundation's expert panel for both sensitivity relief and remineralisation.

BioMin F toothpaste, which also combats early tooth decay, was developed by a team led by Professor Robert Hill, an award-winning advanced materials scientist and chair of dental physical sciences at Queen Mary University of London, and also chief scientific officer of BioMin Technologies.

Around 13.5 million people, almost one in three of the UK population, will suffer from some form of dentine sensitivity at some stage of their lives. This number is growing because of diets loaded with acid content that slowly strips away the enamel coating of our teeth.

Tooth sensitivity, which ranges from sharp reaction to cold and hot to more persistent pain that impacts quality of life, increases with age and is particularly prevalent in women

aged 30 to 50, according to research published in the journal *Clinical Oral Investigations*.

Tooth decay is the most common disease worldwide. Unfortunately, decay affects 60 to 90 per cent of schoolchildren and is the single biggest cause of hospital admissions for children under the age of six.

The benefits derived from regular toothpastes tend to be washed away within 90 minutes of brushing. BioMin's ultra-fine bioactive particles adhere to the tooth surface during brushing and act as a reservoir to release fluoride, calcium and phosphate ions slowly for eight to twelve hours. This creates an effective "armour for teeth" over the enamel and dentine surfaces.

BioMin F toothpaste also helps fill in the tiny defects in the tooth enamel that can, if unchecked, lead to tooth decay and eventually toothache. At the same time, BioMin F toothpaste helps neutralise the effect of acid attack caused by drinking sweet, fizzy and fruit drinks.

Professor Hill, together with his research team, developed BioMin in direct response to the growing numbers of people experiencing tooth sensitivity and unable to find a suitable remedy. Their research resulted in a series of PhD awards, published scientific papers and patent applications as well as winning the 2013 Armourers and Brasiers Venture Prize.

"BioMin F toothpaste operates in a totally different manner to standard toothpastes where the active ingredients, such as soluble fluoride, are washed away and become ineffective less than two hours after brushing," Professor Hill explains.

"BioMin F is able to slowly deliver the required minerals over a much longer

period. It is very effective with much lower levels of fluoride than regular fluoride pastes, and has the capability to enter and occlude exposed dentine tubules protecting the nerve from hot and cold stimuli.

"Additionally, it makes teeth far more resistant to attack from acidic soft drinks like fruit juices and sodas. This breakthrough innovation could significantly reduce dental decay as well as solving tooth-sensitivity problems which are often experienced by people eating or drinking something hot or cold."

Richard Whatley, chief executive of BioMin Technologies, who has more than 30 years' international management experience with market-leading dental industry companies, says: "This is one of the most exciting developments in oral health because of its potential to end the misery of sensitive teeth for millions of people.

"Its ground-breaking technology could transform so many lives around the world, plus it is a fantastic British success story commercialising world-class research for the benefit of the general public."



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BioMin Technologies was established in 2015 as a spin-out company from Queen Mary University of London. For further information please visit biomin.co.uk

BioMin F toothpaste is currently available in 75ml tubes priced at £6.50 from either your local dentists or online at upbeatcare.co.uk/UBIOMINF5

BioMin™
Armour for Teeth