PREVENTION OF SENSITIVITY FOLLOWING SCALING

Innovative new toothpaste BioMin F has been proven to reduce sensitivity following scaling and root planing

Sensitivity following scaling and root planning is a common problem, one which dental hygienists and therapists encounter almost daily. Now an innovative new toothpaste, BioMin F, is available, based on bioactive glass technology, which takes a different approach to the treatment and prevention of dentine sensitivity, and has been shown not only to improve the problem on a daily basis, but also to have an immediate effect in reducing sensitivity immediately after scaling.

The trial (Ashwini S, Swatika K, Kamala DN, 2018) compared the efficacy of three toothpastes straight after scaling and at 15,30 and 60 days later. The BioMin group showed a higher degree of effectiveness in reducing dentine hypersensitivity than the other two groups, and the researchers concluded that: 'fluoro calcium phosphosilicate dentifrices may provide a new direction for the treatment of dentinal hypersensitivity'.

HOW BIOMIN F WORKS

BioMin F is based on a new generation of bioactive glass, developed in the laboratories of Queen Mary University of London. Gradually dissolving over a period of up to 12 hours after brushing, the glass acts as a slow release vehicle for calcium, phosphate and fluoride ions. These particles adhere to the tooth surface and act in concert with the saliva in the mouth to form fluorapatite, the fluoride analogue of natural tooth enamel. Fluorapatite is more stable and resistant to acid attack than hydroxyapatite, formed by the previous generation of bioactive glass.

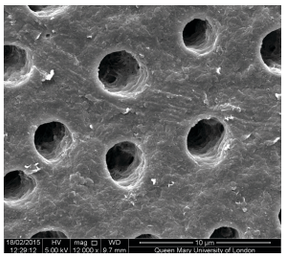
PREVENTION OF POST SCALING SENSITIVITY WITH BIOMIN F

- Post scaling, clean the teeth with the prophy paste of choice
- Wash off the residual paste
- Apply a small bead of Biominf toothpaste into a small dappens glass
- A small rotary brush should be dabbed into the paste and carefully applied, using a slow brush speed, to exposed dentine areas of the scaled teeth

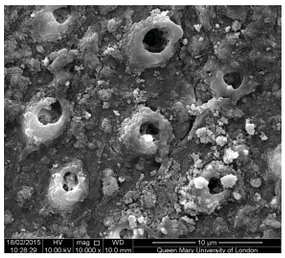
In addition, the tiny particles of BioMin F are able to enter the dentinal tubules, occluding them and laying down fluorapatite to aid remineralisation and prevent fluid flow through the tubules (hydraulic conductance) which causes sensitivity. It is believed that the fluorapatite forms preferentially on the apatite rich walls of the dentinal tubules, effectively reducing and preventing sensitivity from arising. Trials at Queen Mary have shown that the remineralisation process begins within an hour of brushing with BioMin F.

Starting the remineralisation process before treatments such as scaling, root planing and whitening, known to risk causing sensitivity in susceptible patients, means that the enamel is already being strengthened ahead of the treatment; immediate application of BioMin F after treatment (see panel) and recommending that the patient continues to brush with the product is effective at preventing sensitivity.

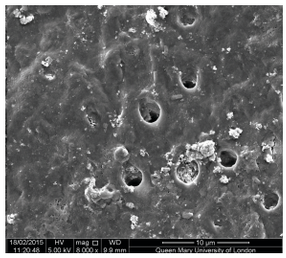
Hygienist Gitana Rederiene now routinely applies BioMin F with a soft rotary brush after scaling and polishing. 'Because BioMin forms a fluorapatite layer on the tooth surface, I can be sure that my patients go out of the clinic with protected dentine,' she said. 'They don't complain of post scaling sensitivity any more.'



Before brushing



After brushing with BioMin F



Following acid challenge

REFERENCES

Ashwini S, Swatika K, Kamala DN (2018) Comparative evaluation of desensitizing efficacy of dentifrice containing 5% fluoro calcium phosphosilicate versus 5% calcium sodium phosphosilicate: A randomized controlled clinical trial. Contemp Clin Dent 9: 330-336

*For patients who do not want to use a toothpaste containing fluoride, BioMin C is available, containing phosphate and calcium, which has been shown to be second only to BioMin F in terms of re-mineralising tooth enamel and preventing sensitivity.

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