

Product spotlight: Biomin F

Moira Crawford looks at Biomin F, an innovative new toothpaste shown to reduce sensitivity caused by teeth whitening, which can occur in a significant number of patients

As patients become ever more conscious of improving their smile, tooth whitening has become an increasingly popular cosmetic dental procedure.

By law, it can only be performed by qualified dental professionals, and concentrations of bleaching agents have been significantly reduced in recent years. It's a very safe procedure, but figures from the British Dental Bleaching Society (BDBS) suggest that at least 50% of patients are still likely to develop sensitivity following the treatment. This can range from a mild awareness of the teeth to shooting pains, sometimes so severe that the patient cannot continue treatment. The BDBS recommends the use of desensitising products in order to manage the problem.

If a patient suffers from sensitivity before whitening, this needs to be treated before the treatment starts, and ideally all patients should be advised to start using a desensitising toothpaste in advance, to prevent the problem arising.

Innovative approach

There are many toothpastes on the market aimed at reducing sensitivity, but Biomin F, developed by dentists and scientists at Queen Mary University of London, takes an innovative approach to the management of the problem, based on bioactive glass technology.



The structure of the bioactive glass incorporates an ideal balance of fluoride, calcium and phosphate ions, and acts as a slow release vehicle for them as it dissolves gradually over around 12 hours. Following brushing with Biomin F, the paste adheres to the surface of the teeth, slowly dissolving to enable the fluoride, calcium and phosphate to work with the saliva in the mouth to form fluorapatite, the fluoride analogue of natural tooth enamel. In addition, the tiny particles of Biomin F enter the dentinal tubules, occluding them and dissolving slowly to prevent fluid movement (hydraulic conductance), which is the cause of sensitivity (Figures 1a-1c).

A further 'smart' effect is that the bioactive glass dissolves faster in the presence of acid, eg in an acidic drink, so speeding up the protective effect.

Research at Queen Mary University has shown fluorapatite to be more stable and resistant to acid attack than hydroxyapatite, used in some other sensitivity products. The findings have also shown Biomin F to be more effective both at

remineralising tooth enamel and reducing or preventing sensitivity.

Dental hygienist Sam Davidson, who works in several practices in the south of England, discovered for herself how effective Biomin F was when she experienced sensitivity during a course of whitening treatment. The sensitivity was so intense that she had had to stop the treatment, but after 14 days of using Biomin F she was able to continue.

'I now routinely recommend it for patients both before starting whitening and during or following the treatment,' she said.

Increasingly, dentists and hygienists are seeing how effective Biomin F is in improving symptoms of sensitivity, and are recommending its use before, during and after a course of whitening treatment. Now offering the opportunity to brush with Biomin F gives a simple and safe way to prevent sensitivity arising during the process of whitening and encourage patients to seek the procedure – gain without pain. [OH](#)



For patients who do not wish to use a product containing fluoride, Biomin C is available, containing phosphate and calcium, and which has been shown to be second only to Biomin F in terms of remineralising tooth enamel and preventing sensitivity. For more information call 01274 881044 or visit www.biomin.co.uk.

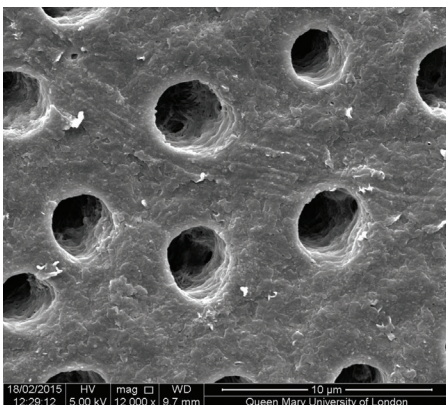


Figure 1a: Before brushing

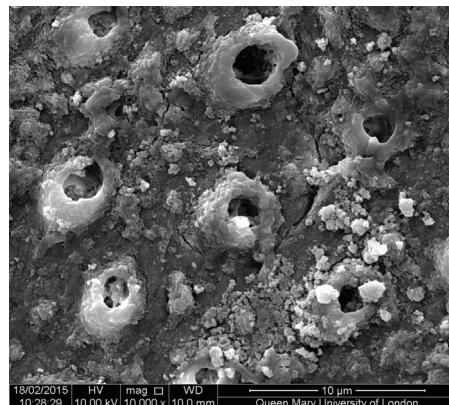


Figure 1b: After brushing with Biomin F

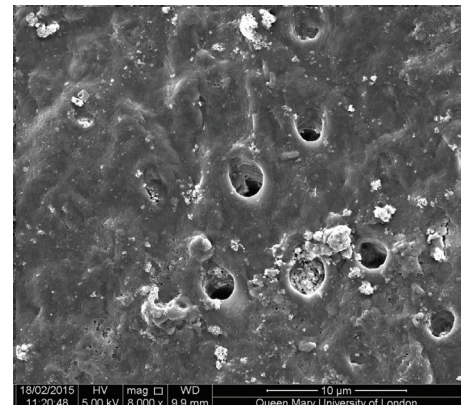


Figure 1c: Following acid challenge