

Six-Month Clinical Evidence for Sustained Dentine Hypersensitivity Relief with BioMin® Toothpaste

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Method

This prospective observational study evaluated the long-term **effectiveness, safety, and tolerability** of a toothpaste containing fluoro-calcium phosphosilicate (**BioMin® F**) in 121 adults with **dentine hypersensitivity (DH)** across multiple dental clinics.

Participants (mean age 41.1 years) used the toothpaste **twice daily for 24 weeks**, with baseline oral prophylaxis performed as clinically indicated.

Effectiveness was assessed using:

- Schiff Cold Air Sensitivity Scale (SCASS)
- Visual Analogue Scale (VAS) for dentine pain
- Dentine Hypersensitivity Experience Questionnaire (DHEQ-15) for oral-health-related quality of life
- Modified Gingival Index (MGI) for gingival health
- Turesky Modification of the Quigley-Hein Index (TMQHI) for supra-gingival plaque

Assessments were conducted at baseline and at weeks 4, 6, 8, 12, 16, and 24. Safety and tolerability were monitored throughout the study.

Conclusion

Six months of twice-daily use of **BioMin® F** toothpaste use **significantly and sustainably reduced dentine hypersensitivity** and improved oral-health-related quality of life.

By week 24, patients demonstrated:

- A **-1.8 reduction in SCASS sensitivity scores** ($p < 0.001$)
- A **-57.9 reduction in VAS pain scores** ($p < 0.001$)
- A **-51.3 improvement in DHEQ-15 quality-of-life scores** ($p < 0.001$)

In addition to sensitivity relief, **BioMin® F** toothpaste delivered **significant improvements in gingival health and plaque control**, with both MGI and plaque scores improving by -1.8 at six months ($p < 0.001$).

BioMin® F toothpaste was well tolerated, with **no adverse events**, and was rated excellent to **very good** by **89.9% of investigators** and **83.2% of patients**. The findings confirm its **clinically proven, long-term (6-month) effectiveness** for **dentine hypersensitivity** and overall oral health support.

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