

Bifluorid 12 – Bleaching

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A desensitizer is generally employed before bleaching therapy to seal open dentine tubules on the dentinal surfaces. Fluoridation is also recommended on the enamel, since all of the fluoride reservoirs on the surface are removed during the initial professional tooth cleaning. A study at the University of Göttingen in Germany examined the effect of different desensitizers on the whitening result.

The whitening of teeth is a procedure that is being requested by an increasing number of patients. According to the American Academy of Cosmetic Dentistry, the bleaching market in the USA experienced an increase of ca. 40% in the last 5 years.^[1] A study by GlaxoSmithKline reached the conclusion that 43% of all adults are unsatisfied with the shade of their teeth.^[2] These numbers also substantiate the increasing significance of bleaching therapy in the dental surgery

Treatment of hypersensitivity

The occurrence of sensitivity through diffusion of active oxygen into the tooth or through dehydration of tooth substance cannot be prevented. If sensitivity occurs, the only remedy is to discontinue the bleaching until the symptoms subside. Direct and severe sensitivity caused by exposed dentine tubules, however, can and must be eliminated before beginning bleaching therapy. Preliminary treatment with Bifluorid 12 is recommended here. Its high effectiveness in the treatment of hypersensitivity by sealing the dentine tubules has been strikingly proven in multiple studies.^[4,5]

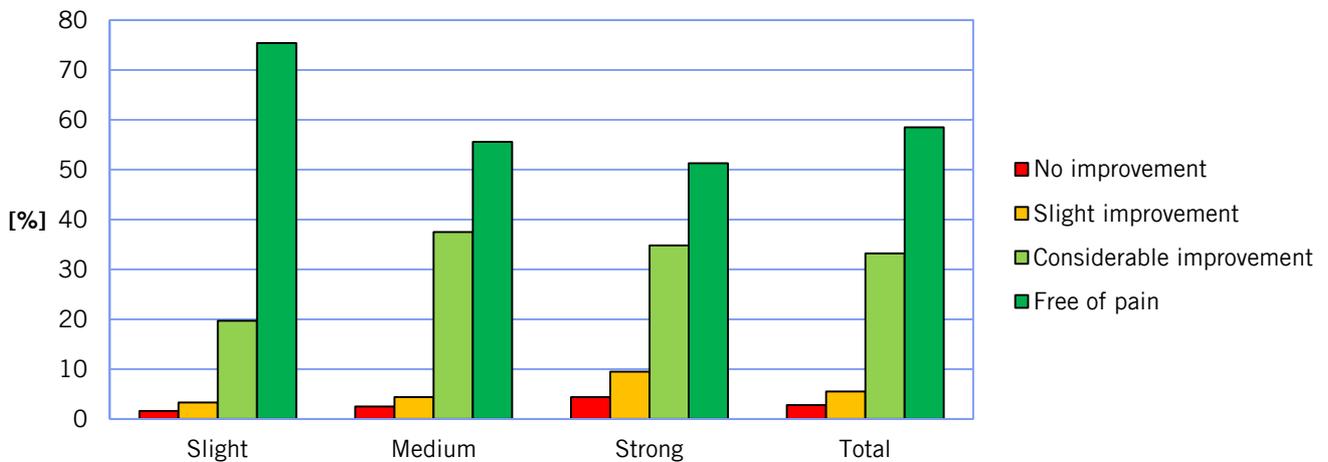


Figure 1: Success of treatment of hypersensitivity with Bifluorid 12 depending on initial symptoms ^[4]

Compatibility with peroxide gels

A study at the University of Göttingen in Germany focused on the question of to what extent the application of desensitizing varnishes affects the effectiveness of bleaching preparations.^[6] For this purpose, the lightness of test specimens that had been prepared with protective varnishes was compared to the lightness of untreated teeth. Both the L*-value (lightness) and the b-value (yellow discolouration) were examined in the comparison. The best whitening results were achieved in the groups treated with Bifluorid 12, both with the use of a 16% carbamide peroxide solution (Vivastyle) and a 35% carbamide (Opalescence Quick) peroxide solution. This applied to, on the one side, the whitening (see Figure 2) and, on the other side, the reduction of the b-value, which stands for the measurement of the yellow discolouration.

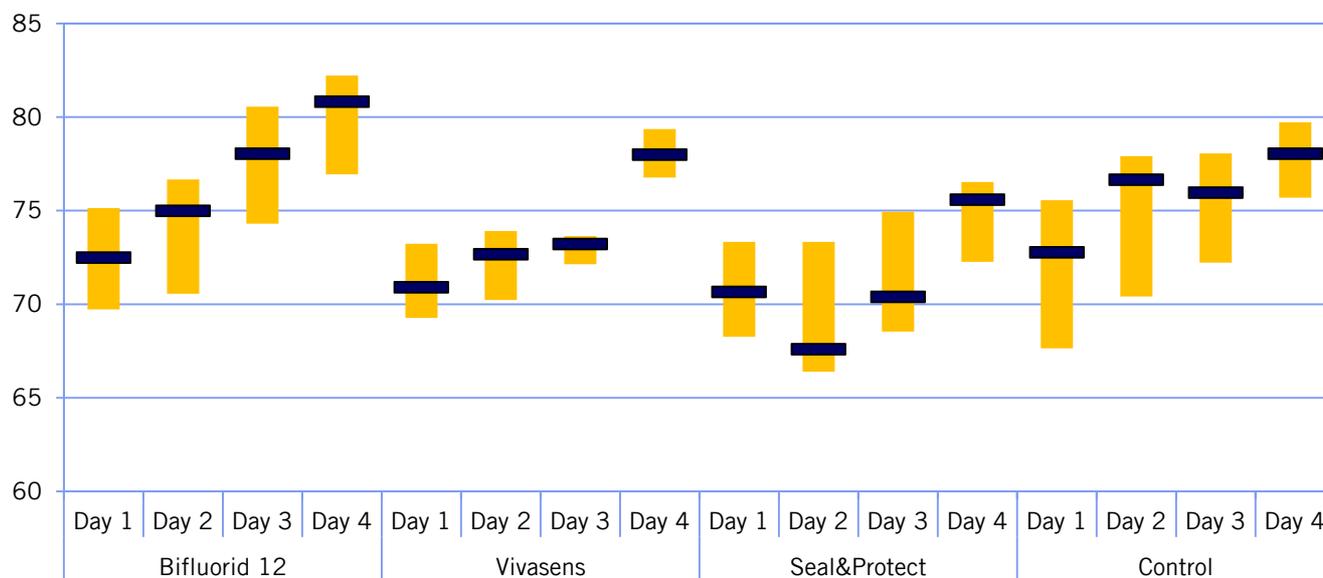


Figure 2: Whitening (L*-value in CIE Lab colour space) after treatment with Vivastyle (16% carbamide peroxide) as box plot (75% quartile, median, 25% quartile)

The application of Bifluorid 12 should fall between the initial professional tooth cleaning and the beginning of the bleaching therapy. Treatment with Bifluorid 12 can be repeated if hypersensitivity still arises. Bleaching can be continued after the application of Bifluorid 12, as the preparation does not affect the whitening result.

Conclusion: The combination of a high degree of effectiveness in the treatment of hypersensitivity and the high degree of compatibility with bleaching products makes Bifluorid 12 an ideal attendant to bleaching therapy.

[1] North American Survey: *The State of Cosmetic Dentistry*, published online, AACD website, 2004.

[2] K. Marvin, *Dent. Today* **2008**, *27*, 80-81.

[3] V. B. Haywood, *Compendium of Continuing Education* 2005, *26*, 3:11-20.

[4] H. M. Artelt, *SwissDent* **1994**, *15*, 9-13.

[5] F. J. T. Burke, R. J. Crisp; University of Glasgow Dental Hospital, 1998.

[6] H. Betke, P. Revas, C. Werner, T. Attin, *Quintessenz* **2005**, *56*, 589-597.