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## Literature Abstract

## Systematic Review on Noninvasive Treatment of Root Caries Lesions

Several approaches to prevent the initiation of or to inactivate root caries lesions have been proposed. Thirty-four clinical studies investigating the efficacy of various chemical agents in the form of dentifrices, mouth rinses, and varnishes were systematically reviewed in this paper to investigate their efficacy on the prevention or inactivation of root caries lesions. Most studies reviewed assessed root caries lesions on the basis of surface texture. It was found that the use of dentifrices containing 5,000 ppm fluoride, or 1.5% arginine plus 1,450 ppm fluoride, significantly inactivated more root caries lesions than the use of dentifrices containing 1,100 to 1,450 ppm fluoride. However, evidence level for the efficacy of 1.5% arginine plus 1,450 ppm fluoride dentifrice was graded as very low, so further studies are recommended. No significant differences were found in the efficacy of amine fluoride/stannous fluoride dentifrice plus rinse compared to sodium fluoride dentifrice plus rinse. Professionally applied quarterly chlorhexidine varnish (1% or 10%) or silver diamine fluoride varnish were found to significantly reduce the initiation of root caries lesions, though these results should still be interpreted with caution as differing criteria for the assessment of root caries lesions, though these results review, compounded by low numbers of clinical trials available for review and limiting grade of evidence levels.

Wierichs RJ, Meyer-Lueckel H.J Dent Res. 2014;14,1–11. References: 61. Reprints: R.J. Wierichs, Department of Operative Dentistry, Periodontology and Preventive Dentistry, RWTH Aachen University, Pauwelsstrasse 30, 52074 Aachen, Germany. Email: rwierichs@ukaachen.de — Debbie P.M Hong, Singapore

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