

## **The effect of fluoride gel on incipient carious lesions in a low-caries child population.**

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**OBJECTIVES:** Secondary analyses were performed to study the cariostatic efficacy of semi-annual professional fluoride gel application on incipient carious lesions in low-caries children initially aged 9.5-11.5 years.

**METHODS:** Double-blind randomized controlled clinical trial.

**RESULTS:** The mean treatment effect of fluoride gel for enamel and dentinal caries lesions after 4 years' follow-up was 0.92 D(2,3)FS and 0.20 D(3)FS, respectively. When enamel lesions were included in the DFS count (i.e. D(2,3)FS), the preventive fraction (PF) showed borderline significance (23%;  $P = 0.05$ ). No significant treatment effect of professionally applied fluoride gel was found for D(2,3)FS and D(3)FS scores of the second molars. The PF for D(2,3)FS of occlusal, approximal, buccal and lingual surfaces and for buccal and palatal pits and fissures differed not significantly.

**CONCLUSION:** Professionally applied fluoride gel showed no statistically significant caries-inhibiting effect on both enamel and dentine lesions in the permanent dentition of low-caries children.