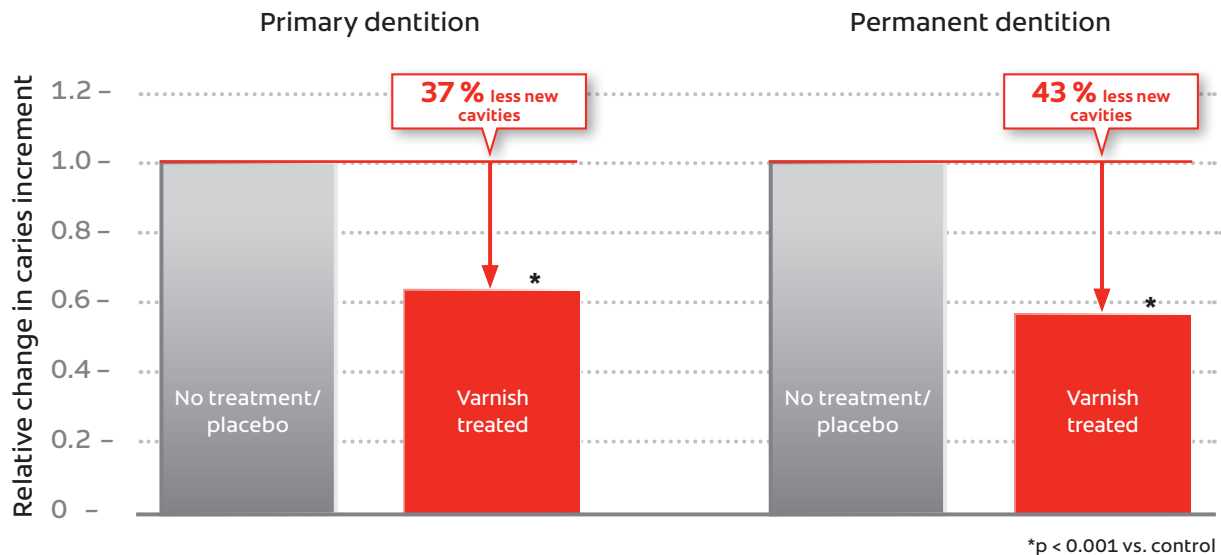


# Cochrane Review on Fluoride Varnishes Shows Significant Caries Prevention in Children and Adolescents 2013

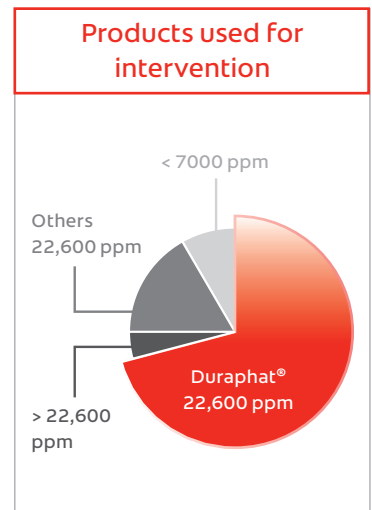
## Results



- 10 studies contributed for the **primary tooth surfaces** meta-analysis. The pooled d(e/m)fs prevented fraction estimate was **37 %**
- 13 studies contributed data for the **permanent surfaces** meta-analysis. The pooled D(M)FS prevented fraction estimate was **43 %**

## Clinical study essentials

- **22 studies** included
- **17/22 studies** included in this Cochrane Review use **Colgate Duraphat® varnish**
- **Randomised, parallel group designed and blinded outcome assessed** studies selected
- **12'455 participants** at the age of 1 – 15 years
- Studies with **1 – 5 years** of duration included with caries increment data nearest to 3 years
- **Published in the Cochrane Database of Systematic Reviews\* in 2013** by Marinho VCC, Worthington HV, Walsh T, Clarkson JE, Cochrane Database of Systematic Reviews 2013, Issue 7. Art. No.: CD002279.DOI: 10.1002/14651858.CD002279.pub2



## Implications for practice

This review demonstrates that fluoride varnish application 2 – 4 times a year for all children and adolescents is beneficial and is highly recommended.

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\*About Cochrane Review:

Cochrane Collaboration is a global organisation promoting evidence-informed health decision-making by producing independent, relevant and standardised systematic reviews. This review is developed in accordance with standardised methodological guidance for the preparation and maintenance of Cochrane Intervention reviews.

# Supplementary Study Information



## Products under investigation

- **Control:** no treatment or placebo
- **Test:** Fluoride varnishes (Duraphat® with 22'600 ppm fluoride and other varnishes with various levels of fluoride from 1'000 ppm to 56'300 ppm)



## Study participants

22 studies with 12'455 participants were included in this review. 21 studies with 9'595 children were included in the meta-analysis. The children from 2 studies were included in the meta-analysis of both, primary and permanent dentition.



## Methods

A total of 1'204 publications were selected and reviewed against the following inclusion criteria of this review to identify the relevant clinical studies:

- Randomised and blinded outcome assessed studies, with a parallel group design, with no treatment (14) or placebo (8) control groups
- 1 – 5 year study duration
- Participants at the ages of 1 – 15 years

Caries prevention was determined by the caries increment data derived from the decayed, missing and filled surfaces (D(M)FS) index changes for permanent dentition and from the d(e/m)fs index changes for primary dentition. The prevented fraction (PF) was then calculated from the mean caries increment between the treatment and control groups as a percentage of the mean increment in the control group. The caries increment data nearest to 3 years were used from each included study.



## Trial procedure

In most of the studies included in the review the fluoride varnish was applied 2x per year (17 studies) or 4x per year (3 studies).



## Conclusion

This review shows a marked caries inhibiting effect of fluoride varnish in both, permanent and primary teeth, with prevention from new caries incidences by 43 % and 37 %, respectively. This caries inhibiting effect is demonstrated irrespective of the initial level of caries risk and of exposition to other sources of fluoride supplementation.

Further publications with this product:

1. Benson et al. (2013) Cochrane Database of Systematic Reviews 2013 (John Wiley & Sons, Ltd), Issue 12. Art. No.: CD003809.
2. Pieper et al. J Public Health (2012) 20:151–157
3. Marinho et al. Cochrane Database of Systematic Reviews 2003 (John Wiley & Sons, Ltd), Issue 4. Art. No.: CD002782. DOI: 10.1002/14651858.CD002782.

Further information on this product:  
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