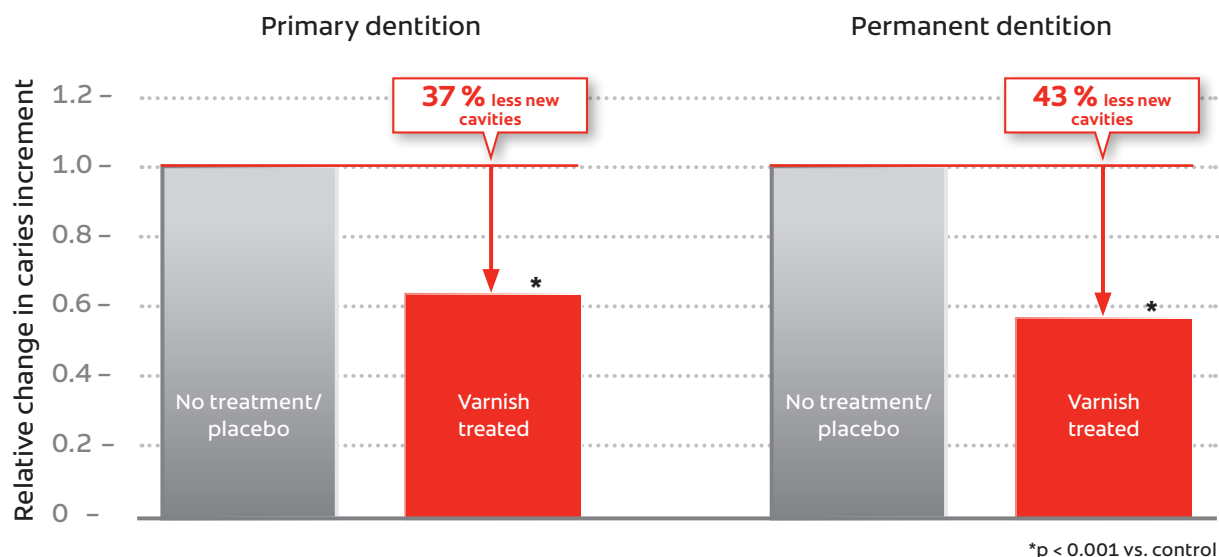


Cochrane Review on Fluoride Varnishes Shows Significant Caries Prevention in Children and Adolescents 2013

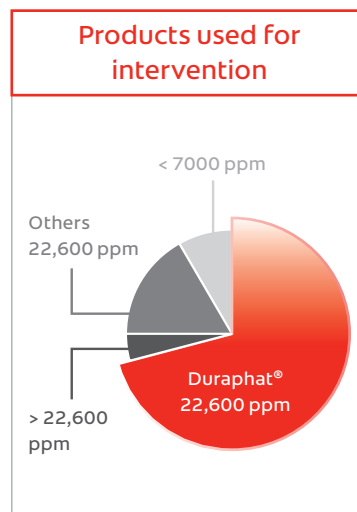
Results



- 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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