Fluoride Varnish: Get the Facts

What is Fluoride Varnish?

- Fluoride varnish is a thin coat of varnish resin, containing fluoride, which is applied to the tooth surface to slow down and reverse the caries process.
- It is indicated for use in infants and children with moderate or high caries risk.
- The fluoride concentration of varnish (22,600 ppm) is two times greater than typical gel or foam (12,300 ppm), but studies show that significantly less fluoride is being ingested during treatment with varnish. Fluoride varnish adheres to the teeth so that little to none of it is ingested.
- Most studies have shown a 25-45% reduction in the decay rate with the use of fluoride varnish. Of special note is the reduction of decay in pits and fissures, as well as on smooth surfaces of teeth. A two-year study using 225 3 year-olds resulted in a 44% caries reduction rate following semi-annual varnish applications.
- Fluoride varnishes have been the standard of care in European countries as well as Canada for 25 years.

Advantages of Fluoride Varnish

- Professional dental cleaning prior to application is not required.
- Easy application.
- Sets upon contact with saliva.
- Is safe and tolerated by infants, young children and individuals with special needs.[1]
- Stays in the mouth 12-24 hours for continued benefit.

How is Fluoride Varnish Applied?

- Dry the teeth with gauze or air.
- Apply a thin layer of varnish to all surfaces of the teeth with a disposable brush.
- The varnish will harden once it comes into contact with saliva.
- Repeat application at 3-month intervals for high-risk children and at 6-month intervals for children at lower risk.[2]

What Parents Need to Know/ Post Op Instructions

- The teeth will appear yellow-white until brushed.
- Do not brush or floss until the next morning.
- Have the child eat a soft, non-abrasive diet for the rest of the day. No chips, cracker, cookies or toast.
- If the child uses fluoride supplements, you can discontinue their use for the next two days.[3]

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[1] J Public Health Dent 1998; 58(4):266-9

[2] Seppa L. Fluoride content of enamel during treatment and 2 years after discontinuation of treatment with fluoride varnishes. Caries Res 1984 ; 18:278-81

Seppa L., Tuutti H., Luoma H. Post-treatment effect of fluoride varnishes in children with a high prevalence of dental caries in a community with fluoridated water. J Dent. Res 1984; 63:1221-2

[3] State of Wisconsin Department of Health and Family Services, Division of Health Care Financing. Fluoride Varnish Guide