

# FLUORIDE VARNISH TRAINING FOR BILHPC

## Introduction

The mouth is the entryway to the rest of the body. Therefore, good oral hygiene is essential for overall good health. In children up to 6 years of age, the application of fluoride directly to the tooth surface promotes strong enamel, keeping the teeth healthy and intact. To meet the MassHealth ACO requirement, children should be screened twice per year, from eruption of the first tooth to 6 years of age.

## How to apply Fluoride Varnish

Gather supplies:

- Fluoride Varnish and applicator
- Gloves
- Gauze

Inform parent/educate patient

Safely position patient: Fluoride varnish is most easily applied to infants and toddlers in the "knee-to-knee" position, with the parent in one chair and the clinician in another. This allows better access and control of the head, and the parent can assist.



Remove loose plaque and food debris from the teeth with gauze. Do not excessively dry the teeth.



Paint the varnish on all sides of the teeth as a very thin film, starting with posterior surface and leaving anterior surface until last, when possible. The yellow or tooth-colored tint of the varnish aids in seeing how much is applied.



Discuss aftercare with parent/caregiver

- No brushing until the next morning
- Avoid sticky, hot, and very hard/crunchy foods
- Temporary tooth discoloration is normal for 24-48hrs

# Appendix:

## Fluoride Varnish Application Facts

### What is fluoride varnish?

Fluoride varnish (5% sodium fluoride) is used to prevent tooth decay. It lowers cavity-causing oral bacterial levels and repairs and strengthens teeth. Fluoride varnish is a topical application and not considered systemic. It is endorsed by the American Dental Association, American Academy of Pediatrics and American Academy of Family Practice. The United States Preventive Services Task Force has proposed the application of fluoride varnish by medical providers as a level B recommendation.

Fluoride varnish comes in prepackaged single doses and is painted onto the child's teeth and can be used from the time of the first tooth eruption. Multiple applications per year provide greater protection.

*Allergy caution:* Although rare, children with allergies to colophony (colophonium) and pine nuts could have allergic reactions to fluoride varnish.

### Which children benefit most from fluoride varnish?

Fluoride varnish is not a substitute for fluoridated water or toothpaste but provides an added benefit - a reduction in caries of 30-70%. Some factors that put children at higher risk include low socio-economic backgrounds (children on Medicaid), premature childbirth, insufficient sources of dietary fluoride, high carbohydrate diets, caretakers who transmit decay-causing bacteria to their children via their saliva, areas of tooth decalcification, reduced salivary flow, and poor oral hygiene. The younger the child is – usually as soon as the first teeth erupt in the mouth – is the best time to start to apply varnish.

### How is fluoride varnish different from other professionally applied fluorides?

Fluoride varnish offers several advantages over other professionally applied fluorides as described below.

1. Varnish comes in child-friendly flavors and is easily tolerated, especially by infants, toddlers, and developmentally disabled children.
2. Providers find it easy to use and fast to apply. Fluoride varnish is swabbed onto the teeth in less than two minutes and sets within a minute of contact with saliva.
3. Fluoride varnish is safe and poses less risk of an adverse reaction because only a small amount is used and little is swallowed.
4. It can be applied in any setting and does not require dental equipment.

### What counseling should be provided to parents?

Inform caregivers that any discoloration will be gone within six to eight hours. The varnish can feel strange to the tongue. Please look at the manufacturer's specific requirements regarding brushing, eating and drinking after application. Varnish is most effective if applied two to four times a year, but may be applied more often. Providers should provide follow-up plans including dental referrals and appropriate handouts.

### Does it matter if I apply topical fluoride and then the dentist also applies topical fluoride next month?

Fluoride varnish is very safe and an increased frequency of applications is not harmful. Physicians can bill for fluoride varnish and it does not affect the dentist from billing for the same service and vice versa.

### I have heard that we do not have to prescribe fluoride tablets/drops if we are applying fluoride varnish. Is that true?

No, it is not true. The American Academy of Pediatrics recently confirmed that all children still need their water assessed to determine if they need dietary fluoride supplements. Dietary fluoride gets taken up into developing teeth; it is also re-excreted into saliva where it can help teeth topically. Fluoride varnish DOES NOT replace this - it is only a topical vehicle. The high concentration of fluoride varnish (in contrast to fluoride tablets) gives a boost to the fluoride content of the outer layer of the enamel helping increase resistance to caries until the next application.

### **Does topical fluoride have any use once cavities have started?**

Yes, fluoride varnish can help stop early tooth decay from progressing. If a tooth just has a white spot, the fluoride varnish will help strengthen the lesion and it will become hard and shiny over time although the white color will remain. If there is an early cavity, the fluoride can help harden the softened enamel and dentine.

### **Can fluoride varnish be applied if a child has orthodontics?**

Yes, it is important to apply fluoride varnish when a child has orthodontics. The orthodontics can make it difficult to brush and therefore the fluoride varnish provides added protection to the teeth.

### **Does fluoride varnish cause fluorosis?**

No. Fluorosis is caused by long term over-exposure to fluoride. Fluorosis is caused by children who consume too much fluoride on an ongoing basis. For example, using excessive amounts of toothpaste or using fluoride tablets when their water supply is fluoridated. Per the Centers for Disease Control and Prevention, no published evidence indicates that professionally applied fluoride varnish is a risk factor for dental fluorosis, even among children younger than six years of age. Proper application technique reduces the possibility that a patient will swallow varnish during its application and limits the total amount of fluoride swallowed as the varnish wears off the teeth over several hours.

# Information for Caregivers about Fluoride Varnish

## Why do we recommend putting a fluoride varnish on children's teeth?

### Because your baby's teeth are important!

Tooth decay is one of the most common diseases seen in children today. Children as young as 10 months can get cavities (holes in the teeth). Cavities in baby teeth can cause pain and may prevent children from being able to eat, speak, sleep, and learn properly. Children should not normally lose all of their baby teeth until they are about 11 or 12 years old.

## What is fluoride varnish?

Fluoride varnish is a protective coating that is painted on teeth to help prevent new cavities and to help stop cavities that have already started.

## Is fluoride varnish safe?

Yes! Fluoride varnish can be used on babies from the time that they have their first tooth (around six months of age). Fluoride varnish has been used to prevent cavities in children in Europe for more than 25 years. It is approved by the FDA and is supported by the American Dental Association.

*Allergy caution:* Although rare, children with allergies to colophony (colophonuim) and pine nuts could have allergic reactions to fluoride varnish.

## How is fluoride varnish put on my child's teeth?

The varnish is painted on the teeth. It is quick and easy to apply and does not have a bad taste. There is no pain, but your child may cry just because babies and children don't like having things put into their mouths by other people. Your child's teeth may be a little bit yellow after the fluoride varnish is painted on, but this color will come off over the next few days.

## How long does the fluoride varnish need to be applied?

The fluoride coating works best if painted on the teeth two to four times a year.

## What do I do after the varnish is put on my child's teeth?

The physician will give you information about how to take care of your child's teeth after the fluoride varnish is applied. Your child may not be allowed to eat or drink for a short time. Do not give him or her sticky or hard food until the next day. It is okay to get another varnish treatment after three months (with your doctor, dentist, or at school) or sooner if recommended. This treatment does not replace brushing your child's teeth or taking a fluoride supplement (if your doctor or dentist has prescribed it).

**Remember, Baby Teeth are Important!**

## References

**THIS INFORMATION IS SUPPORTED BY MASSHEALTH, IS ADAPTED FOR USE BY BETH ISRAEL LAHEY HEALTH PRIMARY CARE AND IS CREATED IN CONJUNCTION WITH MATERIALS FROM:**

Society of Teachers in Family Medicine (STFM) Smiles for Life

AAP Oral Health Risk Assessment: Training for Pediatricians and Other Child Health Professionals

Massachusetts Department of Public Health Oral Health Division

### **Additional References:**

US Preventive Services Task Force. Prevention of dental caries in preschool children. *Am J Prev Med.* 2004;26(4):326–329.

Centers for Disease Control and Prevention Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States. *MMWR* Aug 17, 2001/5(RR14); 1-42.

Marinho VCC, Higgins JPT, Logan S, Sheiham A. Fluoride varnishes for preventing dental caries in children and adolescents. *Cochrane Database of Systematic Reviews* 2002, Issue 1. Art. No.: CD002279. DOI: 10.1002/14651858.CD002279.

Lewis C, Lynch H, Richardson L. Fluoride varnish use in primary care: What Do Providers Think? *Pediatrics* 2005;115:e69–e76.

Slade GD, Rozier RG, Zeldin LP, Margolis PA. Training pediatric health care providers in prevention of dental decay: results from a randomized controlled trial. *BMC Health Services Research* 2007, 7:176.

Hutter JW, Chan JT, Featherstone JDB, et al. Professionally Applied Topical Fluoride: Evidence Based Clinical Recommendations. American Dental Association, Council on Scientific Affairs, May 2006.

Weintraub JA, Ramos-Gomez F, Jue B, et al. Fluoride varnish efficacy in preventing early childhood caries. *J Dent Res* 2006;85(2):172-6.

Smiles for Life Oral Health Trainings: [www.smilesforlifeoralhealth.org](http://www.smilesforlifeoralhealth.org)

AAP Oral Health Risk Assessment: Training for Pediatricians and Other Child Health Professionals: <http://www.mass.gov/eohhs/gov/newsroom/masshealth/providers/fluoride-varnish-training-for-health-care.html>