

CHILD HEALTH MANUAL

SECTION: PEDIATRIC ASSESSMENT

SUBJECT: FLUORIDE VARNISH

POLICY:

The appropriate use of fluoride is part of comprehensive oral health care. The purpose of applying fluoride varnish is to delay, arrest and reverse the process of cavity formation.

INTRODUCTION:

Fluoride varnish is a thick coating of resin that is applied to the tooth surface to protect it from decay. According to the FDA, fluoride varnish falls under the category of “drugs and devices” that presents minimal risk and is subject to the lowest level of regulation.

AUTHORIZED PROVIDERS:

Physicians, physician’s assistants, registered nurses/public health nurses, licensed practical nurses, advanced practice registered nurses, state licensed dental hygienists and dental assistants may apply fluoride varnish consistent with local agency policies and NDCC Chapter 43-28-02.6 statute. Providers must complete a fluoride varnish training program approved by their respective licensing board. Contact the North Dakota Department of Health, Oral Health Program, for training opportunities (Refer to page 2 for contact information).

Registered nurse, licensed practical nurse, registered dental hygienist, registered dental assistant (NDCC § 43-28-02.6)

www.legis.nd.gov/cencode/t43c28.pdf

Advanced practice registered nurse (NDCC § 43-28-02.7)

www.legis.nd.gov/cencode/t43c28.pdf

Physician or physician assistant (NDCC § 43-17-43)

www.legis.nd.gov/cencode/t43c17.pdf

CHILD HEALTH MANUAL**SECTION:** PEDIATRIC ASSESSMENT**SUBJECT:** FLUORIDE VARNISH**INFORMATION ON FLUORIDE VARNISH:**

Questions regarding fluoride varnish application should be directed to: Oral Health Program, Division of Family Health, North Dakota Department of Health (NDDoH), 600 E. Boulevard Ave., Dept. 301, Bismarck, ND 58505-0200. Phone: 800.472.2286 or 701.328.2356.

www.ndhealth.gov/oralhealth

INDICATIONS:

Infants and children with a moderate or high risk of developing caries.

- Children with visible caries, white spots, plaque or decay.
- Children whose caregivers or siblings have caries.
- Children with poor dietary and feeding habits.

Populations believed to be at increased risk for dental caries are those with:

- Low socioeconomic and ethno-cultural status or low levels of parental education.
- Those who do not seek regular dental care.
- Those without dental insurance or access to dental services.
- Children with special health-care needs.
- Children with suboptimal exposure to systemic fluoride.

Individual factors that possibly increase risk include children with:

- A developmental disability.
- Active dental caries.
- A history of high caries experience in older siblings or caregivers.
- Root surfaces exposed by gingival recession.
- High levels of infection with cariogenic bacteria.
- Impaired ability to maintain oral hygiene.
- Malformed enamel or dentin.
- Reduced salivary flow because of medications.
- Radiation treatment or disease.
- Low salivary buffering capacity (i.e., decreased ability of saliva to neutralize acids).
- The wearing of space maintainers, orthodontic appliances or dental prostheses.
- Dietary practices conducive to dental caries (i.e., frequent consumption of refined carbohydrates).
- Engaging in prolonged or ad lib use throughout the day and night of breastfeeding, a bottle or a sippy cup containing liquids other than water.

Risk decreases with adequate exposure to fluoride. (CDC, MMWR, 2001).

Refer to Healthy Smiles: Fluoride Varnish Program Manual

- 1) American Academy of Pediatric Dentistry Caries-risk Assessment tool (CAT)
- 2) CDHP (Children's Dental Health Project) Report on Varnish
- 3) Fluoride Varnish: An Evidenced-Based Approach Research Brief

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The fluoride varnish will be applied as a thin layer of 5 percent sodium fluoride varnish to all surfaces of erupted primary or permanent teeth.

The Centers for Disease Control and Prevention (CDC) recommends fluoride varnish be applied two times annually to maintain effectiveness. High-risk children (as indicated in subject #8 under “indications”) may receive fluoride varnish applications up to four times annually. The parents, legal custodians or guardians must consider their financial responsibility and the options for payment, including Medicaid, Health Tracks, no insurance, or health-care plan coverage limitations.

The American Dental Association (ADA) recommends fluoride varnish be applied every three, six or 12 months, depending on your oral health status.

PRESCRIPTION:

Choose any of the varnishes approved by the Food and Drug Administration as a medical device. Some fluoride varnishes to be used may include:

- Omni Cavity Shield (available in unit dosages)
 - One .25 ml unit dose for children ages 6 months through 5 years
 - One .40 ml unit dose for children 6 years of age and older
- Colgate Oral Pharmaceuticals Duraphat (one to two drops per child depending on number of erupted primary or permanent teeth)
 - One drop for four to eight erupted primary teeth
 - Two drops for full complement of primary/permanent teeth
- Duraflor

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Store varnish in a safe location at room temperature. Store out of the reach of children.

CONTRAINDICATIONS/ALLERGIES:

- Gingival stomatitis
- Ulcerative gingivitis
- Intra-oral inflammation
- Known sensitivity to colophony or colophonium or other product ingredients that include:
 - Ethyl alcohol anhydrous USP 38.58%.
 - Shellac powder 16.92%.
 - Rosin USP 29.61%.
 - Copal.
 - Sodium Fluoride 4.23%.
 - Sodium Saccharin USP 0.04%.
 - Flavorings, cetostearyl alcohol.
- Known sensitivity to pine nuts.
- Consider latex allergies (gloves, etc.) when selecting supplies.

PRECAUTIONS:

Do not apply varnish on large open carious lesions. Referral to local dentist is indicated.

ADVERSE REACTIONS:

- Edematous swellings have been reported in rare instances, especially after application to extensive surfaces.
- Dyspnea, although extremely rare, has occurred in asthmatic people.
- Nausea has been reported when extensive applications have been made.
- If indicated, varnish can be removed with a thorough brushing.

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- It is normal for the teeth to appear dull, yellow and/or streaky in appearance until the teeth are brushed.
- Concentration of fluoride in varnishes is much higher than of APF gels or other topical fluorides; however, due to the sticky form of the varnish and the small amount used per application, risk of ingestion and toxicity is low.

RECORD KEEPING:

The following records must be kept in the child's health record and do not need to be submitted to the NDDoH:

- A signed copy of parent/legal custodian/guardian informed consent
- A signed and dated medical history and screening form
- SFN 59148 Healthy Smiles Health Screening Record (Six Months Through Twenty Years)

All applicable confidentiality requirements must be met.

STATEWIDE DATA KEEPING:

Each agency will follow its internal policy for submission of data. The following forms must be submitted to the Oral Health Program monthly:

- SFN 59147 Healthy Smiles Oral Health Screening Report (Six Months through Twenty Years)

Mail or fax forms to:

North Dakota Department of Health
Oral Health Program
600 East Boulevard Avenue, Dept. 301
Bismarck, ND 58505-0200
Fax: 701.328.1412

Any questions regarding reporting, please contact the Oral Health Program at 701.328.2356.

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- PRE-APPLICATION PROCEDURE
 - Obtain medical history and consent.
 - Conduct risk assessment of the individual and document indication for application.
 - Explain procedure to parent/legal custodian/guardian and child.
 - Advise the parent/legal custodian/guardian that fluoride varnish is available in clear and colored formulas. The clear formula is invisible on the tooth surface. The colored formula may become temporarily discolored (yellowish tinge). The discoloration will be brushed off the following day, yet the protective qualities of the fluoride varnish will remain.
 - Assure parent/legal custodian/guardian ingestion of the fluoride varnish product is minimal.
- EQUIPMENT/SUPPLIES
 - Disposable gloves (non-latex)
 - Toothbrush or gauze sponges (2 x 2)
 - Disposable mouth mirror
 - Paper towels/disposable bibs or lap barrier to place under the child's chin (optional)
 - Fluoride varnish
 - Container/surface to hold varnish
 - Small disposable fluoride applicator/brush
 - Optional: glass of water to drink after application, if requested

DATE: 12/09

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- **POSITION THE CHILD**

- Possible positions for applying fluoride varnish:

- Place the infant/toddler on the parent's lap with the child's head on the parent's knees and the child's legs around the parent's waist, or in their lap.
 - Position yourself knee to knee with the parent and apply the fluoride to the teeth from behind the child's head.
 - Place the infant/toddler on an exam table and work from behind the infant/toddler's head.
 - Adapt a method that works best for you.

- For a young child:

Place the child in a prone or sitting position and work from above the head as with an infant/toddler.

Adapt a method that works best for you.

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- **THE APPLICATION**
 - Wash hands before beginning procedure.
 - Wear disposable exam gloves.
 - The child's teeth should be cleaned with a toothbrush or wiped with a 2x2 gauze pad before fluoride varnish is applied.
 - Using gentle finger pressure to open the child's mouth.
 - Remove excess saliva with a gauze sponge.
 - Use your fingers and sponges to isolate and dry the teeth. You will usually be able to isolate a quadrant of teeth at a time, but may have to work with fewer teeth in some children. Infants are easiest because they have only anterior teeth.
 - Apply a thin layer of the varnish to all surfaces of the teeth. Avoid applying varnish on large open cavities where there may be pulp involvement.
 - Do not apply varnish to surfaces with overt (frank) tooth decay or gingival stomatitis (inflammation of gum tissue, mouth sores, or odor).
 - Once the varnish is applied, you need not worry about moisture (saliva contamination). The varnish sets quickly and dries immediately upon contact with saliva.

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- **POST APPLICATION INSTRUCTIONS**
 - Do not brush or floss the child's teeth for 24 hours after the varnish application to achieve optimal absorption.
 - Instruct the parent/legal custodian/guardian not to administer external fluoride preparations (gels, foams or prescription toothpaste) the day of the procedure.
 - The routine use of fluoride tablets and mouth rinses should not be administered until the next day following the application.
 - The child may drink water immediately following the application.
 - The child may eat soft, non-abrasive foods immediately following the varnish application. The child should avoid consuming sticky, abrasive, or crunchy foods for the first 24 hours (i.e., gum, caramel, candy, potato chips, etc).
 - After application, varnish may appear white and streaky or have a yellowish tinge on the tooth surface. (Depending on the type of varnish used).
 - A thorough brushing and flossing (the day following application) will remove any remaining varnish residue.
 - Post-application written instructions (Fluoride Varnish Parent Information Sheet) and referral status will be communicated to parents/legal custodians/guardians.
 - Instruct parent/legal custodians/guardians on the need to schedule a follow-up appointment for reapplication within six months of the first application, as per the American Dental Association (ADA) and Centers for Disease Control and Prevention (CDC) fluoride varnish recommendations.

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- Refer to www.ndhealth.gov/oralhealth for the following information.
 - Fluoride Varnish: Protect Your Child's Smile
 - Fluoride Varnish Reference Guide
 - Fluoride Varnish Risk Assessment Tool
 - Medicaid Reimbursement Guidelines
 - North Dakota Legal Authorities to Apply Fluoride Varnish
 - Parent/Guardian Consent Form Sample
 - Parent Information
 - Standing Medical Order Sample
 - Supplies
- Refer to the Healthy Smiles Manual, Section One – Oral Health Screening and Fluoride Varnish Program Oral Health Assessment (sample)
- Refer to the Healthy Smiles Manual, or contact the North Dakota Department of Health Oral Health Program (refer to Subject 6, page 1) for the following:
 - SFN 59148 Healthy Smiles Oral Health Screening Record (Six Months through Twenty Years)