



Agenda

Quarterly Community Provider Network (CPN) Meeting (Central)

Date: October 22, 2019
Time: 7:30 AM – 9:00 AM
Location: Muir Parkway Office Center
 1340 Arnold Drive, Conference Room 112
 Martinez, CA. 94553

I.	CALL TO ORDER and INTRODUCTIONS	Christine Gordon, RN, BSN, PHN, DHCS-MT
II.	REVIEW and APPROVAL of Previous Meeting Minutes	Christine Gordon, RN, BSN, PHN, DHCS-MT
III.	IHA, SHA, USPSTF	
	<ul style="list-style-type: none"> • IHA, SHA, USPSTF • 2019 DHCS: New FSR/MRR Tools 	Christine Gordon, RN, BSN, PHN, DHCS-MT
IV.	GUEST SPEAKERS	
	<ul style="list-style-type: none"> • Member Grievance Process • Fluoride Varnish 	Belkys Teutle, Member Services Manager Michelle Rivero/Jody Adelberg Pediatric Public Health
V.	REGULAR REPORTS	
	<ol style="list-style-type: none"> 1. Legislative / CCHP Update <ul style="list-style-type: none"> • California Advancing and Innovating Medi-Cal (Cal-AIM) • DMHC/DHCS Audit highlights 2. CCHP Benefits update <ul style="list-style-type: none"> • NEMT Transportation form DMHC/DHCS Audit highlights • Updates to “No Auth” list 3. Quality <ul style="list-style-type: none"> • NCQA – “Commendable” rating • Population Health Performance Improvement Projects (PIP’s) 4. Pharmacy <ul style="list-style-type: none"> • Review Care Matters 5. Utilization Management <ul style="list-style-type: none"> • Q and A 	Jose Yasul, MD Medical Director, CCHP
VI.	CLAIMS Q&A	Claims Unit Staff

Our next scheduled meeting is January 28, 2020
 CPN meeting reimbursement will be prorated based on length of time attendee is present in the meeting.

CONTRA COSTA HEALTH PLAN
Central County
Quarterly Community Provider Network (CPN)
Meeting Minutes – October 22, 2019

Attending:

CCHP Staff: Jose Yasul, MD, Medical Director; Christine Gordon, RN, BSN, DHCS-MT; Jonel Sangalang, Clerical Support; Elisa Hernandez; Sylvia Rodriguez, Claims Supervisor; Kristine Miller

CPN Providers: S. Blair, CPNP; M. Chang, MD; G. Graves, MD; A. Lopresti, MD; T. Mostaghasi, MD; S. Ng, MD; S. Sachdeva, MD; S. Swenson, CPNP; R. Tracy, MD; K. Warren, CPNP

Guest Belkys Teutle, Member Services Manager; Jody Adelberg, RN, PHN, MSN; Michelle Rivero; S'Deja Alfred

Discussion	Action	Accountable
Meeting called to order at 7:37 A.M.		Christine Gordon, RN, BSN, DHCS-MT
I. Minutes were approved with no revisions.		Jose Yasul, MD Medical Director, CCHP
II. Reminders <ul style="list-style-type: none"> • Initial Health Assessment (IHA) <ul style="list-style-type: none"> ○ Must be completed within 120 days of enrollment into the health plan or documented within the 12 months prior to Plan enrollment. ○ If member assigned to new PCP, IHA must be completed within 120 days of that assignment if no IHA documented within the past 12 months. ○ IHA includes H&P, IHEBA (SHA), USPSTF screenings, ensure up-to-date immunizations per ACIP. ○ Perinatal depression screening. ○ Gonococcal Ophthalmic Neonatorum screening. • USPSTF Update: <ul style="list-style-type: none"> ○ Colorectal cancer screening ○ Lipid screening – children only ○ Post-partum depression screening for new moms ○ Intimate partner violence screening ○ Folic acid supplementation ○ Immunization registry reporting • Facility, site and medical record review tools from DHCS <ul style="list-style-type: none"> ○ Extensive review ○ Spend more time at the facilities ○ USPSTF screenings ○ PowerPoint will be sent to the PCPs 		Christine Gordon, RN, BSN, DHCS-MT

<p>III.</p>	<p>Guest Speaker</p> <p>Member Grievance Process</p> <ul style="list-style-type: none"> • Member Grievance Application (English and Spanish) • Member Consent Form (English and Spanish) • Forms are available electronically • Compliance with state • Some Providers process grievances internally • Educate the member and the parent <p>Dental Varnish</p> <ul style="list-style-type: none"> • American Academy of Pediatrics • Apply fluoride varnish at the well child visit • When the first tooth erupts around 6 months to 5 years of age • Application up to two to four times a year or every six months • Helps prevent cavities • Helps to support a healthy dental remineralization • Prevent and inhibit bacterial growth • Baby teeth affect the permanent teeth • Baby bottle tooth decay – prolong carbohydrate exposure • Breast feeding causes baby bottle tooth decay • Educate parents • Can be done in the dental office • Brushing of protective resin coating of the sodium fluoride that goes on the teeth • Brush the next day • No hot drinks or chewy foods • CHDP Care coordination <ul style="list-style-type: none"> ○ Fee For Service Medi-Cal kids ○ Children in foster care • Fluoride Varnish application training • Reimbursable by Medi-Cal • Swish, rinse and spit out 		<p>Belkys Teutle, Member Services Manager</p> <p>Jody Adelberg, CHDP Pediatric Nurse Practitioner and Michelle Rivero, CHDP Coordinator</p>
<p>IV</p>	<p>Regular Reports - CCHP Updates</p> <ul style="list-style-type: none"> • Provider orientation for new providers • Minor Consent Form for non-accompanied minor • Inform member to contact the transportation unit • Non-Medical Transportation form • Non-Emergency Transportation form • Non-Medical Transportation form • California Advancing and Innovating Medi-Cal (Cal-AIM) <ul style="list-style-type: none"> ○ Waiver program ○ Five categories • Behavioral health (Mid to moderate) <ul style="list-style-type: none"> ○ Integrated health system • Respite care <ul style="list-style-type: none"> ○ Secure housing • Provider Manual <ul style="list-style-type: none"> ○ “No Auth” list 		<p>Jose Yasul, MD Medical Director, CCHP</p>

	<ul style="list-style-type: none"> ▪ 3,000 to 9,000 on list ○ Omron 3 blood pressure cuff <ul style="list-style-type: none"> ▪ Send prescription to pharmacy ○ Pharmacy and Therapeutics update <ul style="list-style-type: none"> ▪ HPV vaccine – MMR update ▪ Steroids – injection on No Auth list ▪ Apidra to Lispro ▪ Roxicodone back on formulary • NCQA – Commendable rating <p>Claims</p> <ul style="list-style-type: none"> • Upgrades with system (CPT Codes) 		<p>Sylvia Rodriguez, Claims Supervisor</p>
--	---	--	--

Adjournment:
Meeting adjourned at 8:54 A.M.

Next meeting January 28, 2020



CLINICAL REPORT

Fluoride Use in Caries Prevention in the Primary Care Setting

abstract

FREE

Dental caries remains the most common chronic disease of childhood in the United States. Caries is a largely preventable condition, and fluoride has proven effectiveness in the prevention of caries. The goals of this clinical report are to clarify the use of available fluoride modalities for caries prevention in the primary care setting and to assist pediatricians in using fluoride to achieve maximum protection against dental caries while minimizing the likelihood of enamel fluorosis. *Pediatrics* 2014;134:626–633

Dental caries (ie, tooth decay) is an infectious disease in which acid produced by bacteria dissolves tooth enamel. If not halted, this process will continue through the tooth and into the pulp, resulting in pain and tooth loss. This activity can further progress to local infections (ie, dental alveolar abscess or facial cellulitis), systemic infection, and, in rare cases, death. Dental caries in the United States is responsible for many of the 51 million school hours lost per year as a result of dental-related illness, which translates into lost work hours for the parent or adult caregiver.¹ Early childhood caries is the single greatest risk factor for caries in the permanent dentition. Good oral health is a necessary part of overall health, and recent studies have demonstrated the adverse effects of poor oral health on multiple other chronic conditions, including diabetes control.² Therefore, the failure to prevent caries has health, educational, and financial consequences at both the individual and societal level.

Dental caries is the most common chronic disease of childhood,¹ with 59% of 12- to 19-year-olds having at least 1 documented cavity.³ Caries is the “silent epidemic” that disproportionately affects poor, young, and minority populations.¹ The prevalence of dental caries in very young children increased during the period between the last 2 national surveys, despite improvements for older children.⁴ Because many children do not receive dental care at young ages, and risk factors for dental caries are influenced by parenting practices, pediatricians have a unique opportunity to participate in the primary prevention of dental caries. Studies show that simple home and primary care setting prevention measures would save health care dollars.⁵

Development of dental caries requires 4 components: teeth, bacteria, carbohydrate exposure, and time. Once teeth emerge, they may become colonized with cariogenic bacteria. The bacteria metabolize carbohydrates

Melinda B. Clark, MD, FAAP, Rebecca L. Slayton, DDS, PhD, and SECTION ON ORAL HEALTH

KEY WORDS

enamel fluorosis, fluoride, fluoride varnish, formula mixing, systemic fluoride supplements, toothpaste, water fluoridation

ABBREVIATIONS

AAP—American Academy of Pediatrics
ADA—American Dental Association
CDC—Centers for Disease Control and Prevention
EPA—Environmental Protection Agency

This document is copyrighted and is property of the American Academy of Pediatrics and its Board of Directors. All authors have filed conflict of interest statements with the American Academy of Pediatrics. Any conflicts have been resolved through a process approved by the Board of Directors. The American Academy of Pediatrics has neither solicited nor accepted any commercial involvement in the development of the content of this publication.

The guidance in this report does not indicate an exclusive course of treatment or serve as a standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

www.pediatrics.org/cgi/doi/10.1542/peds.2014-1699

doi:10.1542/peds.2014-1699

Accepted for publication Jun 9, 2014

All clinical reports from the American Academy of Pediatrics automatically expire 5 years after publication unless reaffirmed, revised, or retired at or before that time.

PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

Copyright © 2014 by the American Academy of Pediatrics

and create acid as a byproduct. The acid dissolves the mineral content of enamel (demineralization) and, over time with repeated acid attacks, the enamel surface collapses and results in a cavity in the tooth. Protective factors that help to remineralize enamel include exposing the teeth to fluoride, limiting the frequency of carbohydrate consumption, choosing less cariogenic foods, practicing good oral hygiene, receiving regular dental care, and delaying bacterial colonization. If carious lesions are identified early, the process can be halted or reversed by modifying the patient's individual risk and protective factors. Certain American Academy of Pediatrics (AAP) publications (*Oral Health Risk Assessment Timing and Establishment of the Dental Home*⁶ and *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*⁷) discuss these concepts in greater depth and provide targeted preventive anticipatory guidance. The Medical Expenditure Panel Survey demonstrated that 89% of infants and 1-year-olds have office-based physician visits annually, compared with only 1.5% who have dental visits.⁸ For primary prevention to be effective, it is imperative that pediatricians be knowledgeable about the process of dental caries, prevention of the disease, and available interventions, including fluoride.

Fluoride is available from many sources and is divided into 3 major categories: tap water (and foods and beverages processed with fluoridated water), home administered, and professionally applied. There has been substantial public and professional debate about fluoride, and myriad information is available, often with confusing or conflicting messages. The widespread decline in dental caries in many developed countries, including the United States, has been largely attributable to the use of fluoride. Fluoride has 3 main mechanisms of action: (1) it promotes enamel remineralization; (2) it

reduces enamel demineralization; and (3) it inhibits bacterial metabolism and acid production.⁹ The mechanisms of fluoride are both topical and systemic, but the topical effect is the most important, especially over the life span.¹⁰

RISK OF FLUOROSIS

The only scientifically proven risk of fluoride use is the development of fluorosis, which may occur with fluoride ingestion during tooth and bone development. Fluorosis of permanent teeth occurs when fluoride of sufficient quantity for a sufficient period of time is ingested during the time that tooth enamel is being mineralized. Fluorosis is the result of subsurface hypomineralization and porosity between the developing enamel rods.¹¹ This risk exists in children younger than 8 years, and the most susceptible period for permanent maxillary incisor fluorosis is between 15 and 30 months of age.^{12–14} The risk of fluorosis is influenced by both the dose and frequency of exposure to fluoride during tooth development.¹⁵ Recent evidence also suggests that individual susceptibility or resistance to fluorosis includes a genetic component.¹⁶

After 8 years of age, there is no further risk of fluorosis (except for the third molars) because the permanent tooth enamel is fully mineralized. The vast majority of enamel fluorosis is mild or very mild and characterized by small

white striations or opaque areas that are not readily noticeable to the casual observer. Although this type of fluorosis is of no clinical consequence, enamel fluorosis has been increasing in frequency over the last 2 decades to a rate of approximately 41% among adolescents because fluoride sources are more widely available in varied forms.¹⁷ Moderate and severe forms of enamel fluorosis are uncommon in the United States but have both an aesthetic concern and potentially a structural concern, with pitting, brittle incisal edges, and weakened groove anatomy in the permanent 6-year molars.

In 2001, the AAP endorsed the guidelines from the Centers for Disease Control and Prevention (CDC), "Recommendations for Using Fluoride to Prevent and Control Dental Caries in the United States."¹⁵ Dental and governmental organizations (American Dental Association [ADA], American Academy of Pediatric Dentistry, the Department of Health and Human Services, and the CDC) have more recently published guidelines on the use of fluoride, but current AAP publications do not reflect these newer evidence-based guidelines. Table 1 provides a simple explanation of fluoride use for patients at low and high risk of caries.

The present report has 2 goals: (1) to assist pediatricians in using fluoride to achieve maximum protection against

TABLE 1 Summary of Fluoride Modalities for Low- and High-Risk Patients

Fluoride Modality	Low Caries Risk	High Caries Risk
Toothpaste	Starting at tooth emergence (smear of paste until age 3 y, then pea-sized)	Starting at tooth emergence (smear of paste until age 3 y, then pea-sized)
Fluoride varnish	Every 3–6 mo starting at tooth emergence	Every 3–6 mo starting at tooth emergence
Over-the-counter mouth rinse	Not applicable	Starting at age 6 y if the child can reliably swish and spit
Community water fluoridation	Yes	Yes
Dietary fluoride supplements	Yes, if drinking water supply is not fluoridated	Yes, if drinking water supply is not fluoridated

dental caries while minimizing the likelihood of enamel fluorosis; and (2) to clarify the advice that should be given by pediatricians regarding fluoride in the primary care setting.

CURRENT INFORMATION REGARDING FLUORIDE USE IN CARIES PREVENTION

The following information aims to assist pediatricians in achieving maximum protection against dental caries for their patients while minimizing the likelihood of enamel fluorosis. Sources of ingested fluoride include drinking water, infant formula, fluoride toothpaste, prescription fluoride supplements, fluoride mouth rinses, professionally applied topical fluoride, and some foods and beverages.¹⁸

Fluoride Toothpaste

Fluoride toothpaste has consistently been proven to provide a caries-preventive effect for individuals of all ages.^{15,19} In the United States, the fluoride concentration of over-the-counter toothpaste ranges from 1000 to 1100 ppm. In some other countries, toothpastes containing 1500 ppm of fluoride are available. A 1-inch (1-g) strip of toothpaste translates to 1 or 1.5 mg of fluoride, respectively. A pea-sized amount of toothpaste is approximately one-quarter of an inch. Therefore, a pea-sized amount of toothpaste containing 1000/1100 ppm of fluoride would have approximately 0.25 mg of fluoride, and the same amount of toothpaste containing 1500 ppm of fluoride would have approximately 0.38 mg of fluoride. Most fluoride toothpaste in the United States contains sodium fluoride, sodium monofluorophosphate, or stannous fluoride as the active ingredient. Parents should supervise children younger than 8 years to ensure the proper amount of toothpaste and effective brushing technique. Children younger than 6 years are more likely to ingest some or all of the toothpaste

used. Ingestion of excessive amounts of fluoride can increase the risk of fluorosis. This excess can be minimized by limiting the amount of toothpaste used and by storing toothpaste where young children cannot access it without parental help.

Use of fluoride toothpaste should begin with the eruption of the first tooth. When fluoride toothpaste is used for children younger than 3 years, it is recommended that the amount be limited to a smear or grain of rice size (about one-half of a pea). Once the child has turned 3 years of age, a pea-sized amount of toothpaste should be used.^{20,21} Young children should not be given water to rinse after brushing because their instinct is to swallow. Expecting without rinsing will both reduce the amount of fluoride swallowed and leave some fluoride in the saliva, where it is available for uptake by the dental plaque. Parents should be strongly advised to supervise their child's use of fluoride toothpaste to avoid overuse or ingestion.

High-concentration toothpaste (5000 ppm) is available by prescription only. The active ingredient in this toothpaste is sodium fluoride. This agent can be recommended for children 6 years and older and adolescents who are at high risk of caries and who are able to expectorate after brushing. Dentists may also prescribe this agent for adolescents who are undergoing orthodontic treatment, as they are at increased risk of caries during this time.²²

Fluoride Varnish

Fluoride varnish is a concentrated topical fluoride that is applied to the teeth by using a small brush and sets on contact with saliva. Advantages of this modality are that it is well tolerated by infants and young children, has a prolonged therapeutic effect, and can be applied by both dental and non-

dental health professionals in a variety of settings.²³ The concentration of fluoride varnish is 22 600 ppm (2.26%), and the active ingredient is sodium fluoride. The unit dose packaging from most manufacturers provides a specific measured amount (0.25 mg, providing 5 mg of fluoride ion). The application of fluoride varnish during an oral screening is of benefit to children, especially those who may have limited access to dental care. Current American Academy of Pediatric Dentistry recommendations for children at high risk of caries is that fluoride varnish be applied to their teeth every 3 to 6 months.²⁴ The 2013 ADA guideline recommends application of fluoride varnish at least every 6 months to both primary and permanent teeth in those subjects at elevated caries risk.²⁵ The US Preventive Services Task Force recently published a new recommendation that primary care clinicians apply fluoride varnish to the primary teeth of all infants and children starting at the age of primary tooth eruption (B recommendation).²⁶

In most states, Medicaid will pay physicians for the application of fluoride varnish. Information regarding fluoride varnish application reimbursement and which states currently provide payment can be found on the AAP Web site (<http://www2.aap.org/oralhealth/docs/OHReimbursementChart.pdf>) and the Pew Charitable Trusts Web site (<http://www.pewstates.org/research/analysis/reimbursing-physicians-for-fluoride-varnish-85899377335>). Because state regulations vary regarding whether fluoride varnish must be applied within the context of a preventive care code, this information should be determined before billing.

Indications for Use

In the primary care setting, fluoride varnish should be applied to the teeth of all infants and children at least once every 6 months and preferably every 3 months, starting when the first tooth

erupts and until establishment of a dental home.

Instructions for Use

Fluoride varnish must be applied by a dentist, dental auxiliary professional, physician, nurse, or other health care professional, depending on the practice regulations in each state. It should not be dispensed to families to apply at home. Application of fluoride varnish is most commonly performed at the time of a well-child visit. Teeth are dried with a 2-inch gauze square, and the varnish is then painted onto all surfaces of the teeth with a brush provided with the varnish. Children are instructed to eat soft foods and not to brush their teeth on the evening after the varnish application to maximize the contact time of the varnish to the tooth. The following day, they should resume brushing twice daily with fluoridated toothpaste.

Over-the-Counter Fluoride Rinse

Over-the-counter fluoride rinse provides a lower concentration of sodium fluoride than toothpaste or varnish. The concentration is most commonly 230 ppm (0.05% sodium fluoride). Expert panels on this topic have concluded that over-the-counter fluoride rinses should not be recommended for children younger than 6 years because of their limited ability to rinse and spit and the risk of swallowing higher-than-recommended levels of fluoride.²⁷ A teaspoon (5 mL) of over-the-counter fluoride rinse contains approximately 1 mg of fluoride. For children younger than 6 years, this type of rinse provides an additional, low-dose topical fluoride application that may assist in the prevention of enamel demineralization. However, the evidence for an anticaries effect is limited. The daily use of a 0.05% sodium fluoride rinse may be of benefit for children older than 6 years who are at high risk of dental caries; however, there is no additional benefit

beyond daily use of fluoridated toothpaste for children at low risk of caries.^{28,29}

Dietary Fluoride Supplements

Dietary fluoride supplements should be considered for children living in communities in which the community water is not fluoridated or who drink well water that does not contain fluoride.²⁶ Because there are many sources of fluoride in the water supply and in processed food, it is essential that all potential sources of fluoride be assessed before prescribing a dietary supplement, including consideration of differing environmental exposures (eg, dual homes, child care). As a general guideline, if the primary source of water is fluoridated tap or well water, the child will not require fluoride supplementation, even if he or she primarily drinks bottled water, because the teeth are exposed to fluoride through cooking and brushing. The risk of fluorosis is high if fluoride supplements are given to a child consuming fluoridated water.³⁰ Information about the fluoridation levels in many community water systems can be found on the CDC Web site entitled My Water's Fluoride (<http://apps.nccd.cdc.gov/MWF/Index.asp>). Not all communities report this information to the CDC; therefore, it may be necessary to contact the local water department to determine the level of fluoride in the community water. Well water must be tested for fluoride content before prescribing supplements; such testing is available in most states through the state or county public health laboratory.

Guidelines for Use

CDC recommendations regarding fluoride supplementation are provided in Table 2. Supplements can be prescribed in liquid or tablet form. Tablets are preferable for children old enough to chew, because they gain an additional topical benefit to the teeth during the chewing process. Liquid supplements are recommended for younger children and should ideally be added to water or put directly into the child's mouth. Addition of the fluoride supplement to milk or formula is not recommended because of the reduced absorption of fluoride in the presence of calcium.³¹ The risk of mild fluorosis can be minimized by health care providers verifying that there are no other sources of fluoride exposure before prescribing systemic fluoride supplements.

Other Sources of Fluoride

Fluoride is present in processed foods and beverages and may be naturally occurring in some areas of the country. The presence of fluoride in juices and carbonated beverages does not counteract the cariogenic nature of these beverages.

Reconstitution of Infant Formula

In a study of infant feeding practices, 70% to 75% of mothers who fed their infants formula used tap water to reconstitute the powdered formula.³² According to CDC data from 2012, approximately 67% of US households using public water supplies received

TABLE 2 Fluoride Supplementation Schedule for Children

Age	Fluoride Ion Level in Drinking Water ^a		
	<0.3 ppm	0.3–0.6 ppm	>0.6 ppm
Birth–6 mo	None	None	None
6 mo–3 y	0.25 mg/d ^b	None	None
3–6 y	0.50 mg/d	0.25 mg/d	None
6–16 y	1.0 mg/d	0.50 mg/d	None

Source: Centers for Disease Control and Prevention.⁴⁵

^a 1.0 ppm = 1 mg/L.

^b 2.2 mg of sodium fluoride contains 1 mg of fluoride ion.

optimally fluoridated water (between 0.7 and 1.2 ppm).³⁵

ADA Evidenced-Based Clinical Recommendations

In 2011, the ADA Council on Scientific Affairs examined the existing evidence and made 2 recommendations. The first recommendation supported the continued use of optimally fluoridated water to reconstitute powdered and liquid infant formula, being cognizant of the small risk of fluorosis in permanent teeth. The second recommendation stated that if there was concern about the risk of mild fluorosis, the formula could be reconstituted with bottled (nonfluoridated) water.¹⁸ It should be noted that most bottled water has suboptimal levels of fluoride and that fluoride content is not listed unless it is added.

Community Water Fluoridation

Community water fluoridation is the practice of adding a small amount of fluoride to the water supply. It has been heralded as 1 of the top 10 public health achievements of the 20th century by the CDC.³⁴ Community water fluoridation is a safe, efficient, and cost-effective way to prevent tooth decay and has been shown to reduce tooth decay by 29%.³⁵ It prevents tooth decay through the provision of low levels of fluoride exposure to the teeth over time and provides both topical and systemic exposure. It is estimated that every dollar invested in water fluoridation saves \$38 in dental treatment costs (<http://www.cdc.gov/fluoridation/benefits/>). Currently, although more than 210 million Americans live in communities with optimally fluoridated water, there are more than 70 million others with public water systems who do not have access to fluoridated water.³³ The fluoridation status of a community water supply can be determined by contacting the local water department

or accessing the Web site My Water's Fluoride (<http://apps.nccd.cdc.gov/MWF/Index.asp>).

Recommended Concentration

Water fluoridation was initiated in the United States in the 1940s. In January 2011, the US Department of Health and Human Services proposed a change to lower the optimal fluoride level in drinking water. The proposed new recommendation is 0.7 mg of fluoride per liter of water to replace the previous recommendation, which was based on climate and ranged from 0.7 mg/L in the warmest climates to 1.2 mg/L in the coldest climates.³⁶ The change was recommended because recent studies showed no variation in water consumption by young children based on climate and to adjust for an overall increase in sources of fluoride (foods and beverages processed with fluoridated water and fluoridated mouth rinses and toothpastes) in the American diet.

Evidence Supporting Community Water Fluoridation

Despite overwhelming evidence supporting the safety and preventive benefits of fluoridated water, community water fluoridation continues to be a controversial and highly emotional issue. Opponents express a number of concerns, all of which have been addressed or disproven by validated research. The only scientifically documented adverse effect of excess (nontoxic) exposure to fluoride is fluorosis. An increase in the incidence of mild enamel fluorosis among teenagers has been cited as a reason to discontinue fluoridation, even though this condition is cosmetic with no detrimental health outcomes. Recent opposition has sometimes centered on the question of who decides whether to fluoridate (elected/public officials or the voters), possibly reflecting a recent trend of distrust of the US government. Many opponents believe fluoridation to be mass medication and

call the ethics of community water fluoridation into question, but courts have consistently held that it is legal and appropriate for a community to adopt a fluoridation program.³⁷ Opponents also express concern about the quality and source of fluoride, claiming that the additives (fluorosilicic acid, sodium fluoride, or sodium fluorosilicate), in their concentrated form, are highly toxic and are byproducts of the production of phosphate fertilizer and may include other contaminants, such as arsenic. The quality and safety of fluoride additives are ensured by Standard 60 of the National Sanitation Foundation/American National Standards Institute, a program commissioned by the Environmental Protection Agency (EPA), and testing has been conducted to confirm that arsenic or other substances are below the levels allowed by the EPA.³⁸ Finally, there have been many unsubstantiated or disproven claims that fluoride leads to kidney disease, bone cancer, and compromised IQ. More than 3000 studies or research papers have been published on the subject of fluoride or fluoridation.³⁹ Few topics have been as thoroughly researched, and the overwhelming weight of the evidence—in addition to 68 years of experience—supports the safety and effectiveness of this public health practice.

Naturally Occurring Fluoride in Drinking Water

The optimal fluoride level in drinking water is 0.7 to 1.2 ppm, an amount that has been proven beneficial in reducing tooth decay. Naturally occurring fluoride may be below or above these levels in some areas. Under the Safe Drinking Water Act (Pub L No. 93-523 [1974]), the EPA requires notification by the water supplier if the fluoride level exceeds 2 ppm. In areas where naturally occurring fluoride levels in drinking water exceed 2 ppm, people should consider an alternative water source or home water treatments to reduce the risk of

fluorosis in young children.⁴⁰ Well water should be tested for the level of fluoride; this testing is most commonly performed through the health department.

Fluoride Toxicity

Toxic levels of fluoride are possible, particularly in children, as a result of ingesting large quantities of fluoride supplements. The toxic dose of elemental fluoride is 5 to 10 mg of fluoride per kilogram of body weight.⁴¹ Lethal doses in children have been calculated to be between 8 and 16 mg/kg. When prescribing sodium fluoride supplements, it is recommended to limit the quantity prescribed at one time to no more than a 4-month supply. Parents should be advised to keep fluoride products out of the reach of young children and to supervise their use.

Fluoride Removal Systems

There are a number of water treatment systems that are effective in the removal of fluoride from water,⁴² including reverse osmosis and distillation. Parents should be counseled on the use of these and activated alumina filters in the home and, should they choose to use one that removes fluoride, the potential effect on their family's oral health. Commonly used home carbon filters (eg, Brita [Brita LP, Oakland, California], PUR [Kaz USA, Incorporated, Southborough, MA]) do not remove fluoride. These can be recommended for families who are concerned about heavy metals or other impurities in their home water supply but who wish to retain the benefits of fluoridated water.

SUGGESTIONS FOR PEDIATRICIANS

1. Know how to assess caries risk. As recommended by the AAP's *Oral Health Risk Assessment Timing and Establishment of the Dental Home*⁶ and *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*,⁷ pediatricians should perform oral health risk assessments on all children at preventive visits beginning at 6 months of age. An oral health risk assessment tool has been developed by the AAP/Bright Futures and endorsed by the National Interprofessional Initiative on Oral Health. This tool can be accessed at <http://www2.aap.org/oralhealth/RiskAssessment-Tool.html>. There are currently no validated early childhood caries risk assessment tools. The aforementioned tool is a guide to help clinicians counsel patients about oral health and best identify risk.
2. Know how to assess a child's exposure to fluoride and determine the need for topical or systemic supplements.⁴³
3. Understand indications for fluoride varnish and how to provide it. Fluoride varnish can be a useful tool in the prevention of early childhood caries. Additional training on oral screenings, fluoride varnish indications and application, and office implementation can be found in the Smiles for Life Curriculum Course 6: Caries Risk Assessment, Fluoride Varnish and Counseling⁴⁴ at www.smilesforlifeoralhealth.org. In addition, the AAP Children's Oral Health Web site

is a resource for oral health practice tools (<http://www2.aap.org/oralhealth/PracticeTools.html>).

4. Advocate for water fluoridation in the local community. Public water fluoridation is an effective and safe method of protecting the most vulnerable members of our population from dental caries. Pediatricians are encouraged to advocate on behalf of public water fluoridation in their communities and states. For additional information and water fluoridation facts and detailed questions and answers, see http://www.ada.org/sections/newsAndEvents/pdfs/fluoridation_facts.pdf, <http://www.cdc.gov/fluoridation/>, and <http://www.ilikemyteeth.org>.

LEAD AUTHORS

Melinda B. Clark, MD, FAAP
Rebecca L. Slayton, DDS, PhD

SECTION ON ORAL HEALTH EXECUTIVE COMMITTEE, 2011–2012

Adriana Segura, DDS, MS, Chairperson
Suzanne Boulter, MD, FAAP
Melinda B. Clark, MD, FAAP
Rani Gereige, MD, FAAP
David Krol, MD, MPH, FAAP
Wendy Mouradian, MD, FAAP
Rocio Quinonez, DMD, MPH
Francisco Ramos-Gomez, DDS
Rebecca L. Slayton, DDS, PhD
Martha Ann Keels, DDS, PhD, Immediate Past Chairperson

LIAISONS

Joseph Castellano, DDS – *American Academy of Pediatric Dentistry*
Sheila Strock, DMD, MPH – *American Dental Association Liaison*

STAFF

Lauren Barone, MPH

REFERENCES

1. US Department of Health and Human Services. *Oral Health in America: A Report of the Surgeon General*. Rockville, MD: National Institute of Dental and Craniofacial Research, National Institutes of Health; 2000
2. Mealey BL. Periodontal disease and diabetes. A two-way street. *J Am Dent Assoc*. 2006;137(suppl):26S–31S

3. Tomar SL, Reeves AF. Changes in the oral health of US children and adolescents and dental public health infrastructure since the release of the Healthy People 2010 Objectives. *Acad Pediatr*. 2009;9(6):388–395
4. Dye BA, Thornton-Evans G. Trends in oral health by poverty status as measured by Healthy People 2010 objectives. *Public Health Rep*. 2010;125(6):817–830
5. Stearns SC, Rozier RG, Kranz AM, Pahel BT, Quiñonez RB. Cost-effectiveness of preventive oral health care in medical offices for young Medicaid enrollees. *Arch Pediatr Adolesc Med*. 2012;166(10):945–951
6. Hale KJ; American Academy of Pediatrics Section on Pediatric Dentistry. Oral health risk assessment timing and establishment of the dental home. *Pediatrics*. 2003;111(5 pt 1):1113–1116
7. American Academy of Pediatrics, Bright Futures Steering Committee. Promoting oral health. In: Hagan JF, Shaw JS, Duncan PM, eds. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*. 3rd ed. Elk Grove Village, IL: American Academy of Pediatrics; 2008:155–168
8. American Academy of Pediatrics. Profile of pediatric visits: AAP analysis of the 2004–2007 Medical Expenditure Panel Survey and 2004–2007 National Ambulatory Medical Care Survey. Available at: www.aap.org/en-us/professional-resources/practice-support/financing-and-payment/Billing-and-Payment/Documents/Profile_Pediatric_Visits.pdf. Accessed May 20, 2014
9. Lynch RJ, Navada R, Walia R. Low-levels of fluoride in plaque and saliva and their effects on the demineralisation and remineralisation of enamel; role of fluoride toothpastes. *Int Dent J*. 2004;54(5 suppl 1):304–309
10. Featherstone JD. Prevention and reversal of dental caries: role of low level fluoride. *Community Dent Oral Epidemiol*. 1999;27(1):31–40
11. Aoba T, Fejerskov O. Dental fluorosis: chemistry and biology. *Crit Rev Oral Biol Med*. 2002;13(2):155–170
12. DenBesten PK. Biological mechanisms of dental fluorosis relevant to the use of fluoride supplements. *Community Dent Oral Epidemiol*. 1999;27(1):41–47
13. Ismail AI, Bandekar RR. Fluoride supplements and fluorosis: a meta-analysis. *Community Dent Oral Epidemiol*. 1999;27(1):48–56
14. Levy SM, Broffitt B, Marshall TA, Eichenberger-Gilmore JM, Warren JJ. Associations between fluorosis of permanent incisors and fluoride intake from infant formula, other dietary sources and dentifrice during early childhood. *J Am Dent Assoc*. 2010;141(10):1190–1201
15. Adair SM, Bowen WH, Burt BA, et al; Centers for Disease Control and Prevention. Recommendations for using fluoride to prevent and control dental caries in the United States. *MMWR Recomm Rep*. 2001;50(RR-14):1–42
16. Everett ET. Fluoride's effects on the formation of teeth and bones, and the influence of genetics. *J Dent Res*. 2011;90(5):552–560
17. Beltrán-Aguilar ED, Barker L, Dye BA. Prevalence and severity of dental fluorosis in the United States, 1999-2004. *NCHS Data Brief*. 2010;(53):1–8
18. Berg J, Gerweck C, Hujoel PP, et al; American Dental Association Council on Scientific Affairs Expert Panel on Fluoride Intake From Infant Formula and Fluorosis. Evidence-based clinical recommendations regarding fluoride intake from reconstituted infant formula and enamel fluorosis: a report of the American Dental Association Council on Scientific Affairs. *J Am Dent Assoc*. 2011;142(1):79–87
19. Wong MC, Clarkson J, Glenny AM, et al. Cochrane reviews on the benefits/risks of fluoride toothpastes. *J Dent Res*. 2011;90(5):573–579
20. Wright JT, Hanson N, Ristic H, et al. Fluoride toothpaste efficacy and safety in children younger than six years of age: a systematic review. *J Am Dent Assoc*. 2014;145(2):182–189
21. Scottish Intercollegiate Guidelines Network. Prevention and Management of Dental Decay in the Pre-School Child. A National Guideline. Edinburgh, Scotland: Scottish Intercollegiate Guidelines Network; 2005. Available at: www.sign.ac.uk/pdf/qrg83.pdf. Accessed May 20, 2014
22. Al-Mulla A, Karlsson L, Kharsa S, Kjellberg H, Birkhed D. Combination of high-fluoride toothpaste and no post-brushing water rinsing on enamel demineralization using an in-situ caries model with orthodontic bands. *Acta Odontol Scand*. 2010;68(6):323–328
23. American Dental Association Council on Scientific Affairs. Professionally applied topical fluoride: evidence-based clinical recommendations. *J Am Dent Assoc*. 2006;137(8):1151–1159
24. American Academy of Pediatric Dentistry. Guideline on Fluoride Therapy. Chicago, IL: American Academy of Pediatric Dentistry; 2013. Available at: www.aapd.org/media/Policies_Guidelines/G_fluoridetherapy.pdf. Accessed May 20, 2014
25. Weyant RJ, Tracy SL, Anselmo TT, et al; American Dental Association Council on Scientific Affairs Expert Panel on Topical Fluoride Caries Preventive Agents. Topical fluoride for caries prevention: executive summary of the updated clinical recommendations and supporting systematic review [published correction appears in *J Am Dent Assoc*. 2013;144(12):1335]. *J Am Dent Assoc*. 2013;144(11):1279–1291
26. US Preventive Services Task Force. Prevention of Dental Caries in Children From Birth Through Age 5 Years: US Preventive Services Task Force Recommendation Statement. Rockville, MD: US Preventive Services Task Force; 2014. Available at: www.uspreventiveservicestaskforce.org/uspstf/uspndch.htm. Accessed May 20, 2014
27. Maternal and Child Health Bureau. Expert Panel. Topical Fluoride Recommendations for High-Risk Children: Development of Decision Support Matrix. Washington, DC: Altarum Institute; 2007. Available at: www.mchoralhealth.org/PDFs/TopicalFluorideRpt.pdf. Accessed May 20, 2014
28. Adair SM. Evidence-based use of fluoride in contemporary pediatric dental practice. *Pediatr Dent*. 2006;28(2):133–142, discussion 192–198
29. Twetman S, Petersson L, Axelsson S, et al. Caries-preventive effect of sodium fluoride mouthrinses: a systematic review of controlled clinical trials. *Acta Odontol Scand*. 2004;62(4):223–230
30. Pendry DG, Katz RV, Morse DE. Risk factors for enamel fluorosis in a fluoridated population. *Am J Epidemiol*. 1994;140(5):461–471
31. Buzalaf MA, Whitford GM. Fluoride metabolism. *Monogr Oral Sci*. 2011;22:20–36
32. Fein SB, Grummer-Strawn LM, Raju TN, Raju MD. Infant feeding and care practices in the United States: results from the Infant Feeding Practices Study II. *Pediatrics*. 2008;122(suppl 2):S25–S27
33. Centers for Disease Control and Prevention. Community water fluoridation. Water fluoridation statistics. Available at: www.cdc.gov/fluoridation/statistics/2012stats.htm. Accessed May 20, 2014
34. Centers for Disease Control and Prevention (CDC). Ten great public health achievements—United States, 1900-1999. *MMWR Morb Mortal Wkly Rep*. 1999;48(12):241–243
35. Community Preventive Services Task Force. Summary of Task Force Recommendations and Findings. Atlanta, GA: Community Preventive Services Task Force; 2002. Available at: www.thecommunityguide.org/oral/fluoridation.html. Accessed May 20, 2014
36. Department of Health and Human Services. HHS recommendation for fluoride concentration in drinking water for prevention of dental caries. *Fed Regist*. 2011;76(9):2383–2388

37. Burt B, Eklund S. *Dentistry, Dental Practice, and the Community*. 6th ed. St. Louis, MO: Elsevier Saunders; 2005
38. Centers for Disease Control and Prevention. Community water fluoridation. Engineering. water fluoridation additives fact sheet. Available at: www.cdc.gov/fluoridation/factsheets/engineering/wfadditives.htm. Accessed May 20, 2014
39. Cheng KK, Chalmers I, Sheldon TA. Adding fluoride to water supplies. *BMJ*. 2007;335(7622):699–702
40. ADA Division of Communications. For the dental patient: infants, formula and fluoride. *J Am Dent Assoc*. 2007;138(1):132
41. Shulman JD, Wells LM. Acute fluoride toxicity from ingesting home-use dental products in children, birth to 6 years of age. *J Public Health Dent*. 1997;57(3):150–158
42. Van Winkle S, Levy SM, Kiritsy MC, Heilman JR, Wefel JS, Marshall T. Water and formula fluoride concentrations: significance for infants fed formula. *Pediatr Dent*. 1995;17(4):305–310
43. Centers for Disease Control and Prevention. Recommendations for using fluoride to prevent and control dental caries in the United States. *MMWR Recomm Rep*. 2001;50(RR-14):1–42 www.cdc.gov/mmwr/preview/mmwrhtml/rr5014a1.htm. Accessed May 20, 2014
44. Douglass AB, Clark MB, Maier R, et al. *Smiles for Life: A National Oral Health Curriculum*. 3rd ed. Leawood, KS: Society of Teachers of Family Medicine; 2010. Available at: www.smilesforlifeoralhealth.com. Accessed May 20, 2014

Fluoride Use in Caries Prevention in the Primary Care Setting
Melinda B. Clark, Rebecca L. Slayton and SECTION ON ORAL HEALTH
Pediatrics 2014;134;626
DOI: 10.1542/peds.2014-1699 originally published online August 25, 2014;

Updated Information & Services	including high resolution figures, can be found at: http://pediatrics.aappublications.org/content/134/3/626
References	This article cites 31 articles, 9 of which you can access for free at: http://pediatrics.aappublications.org/content/134/3/626#BIBL
Subspecialty Collections	This article, along with others on similar topics, appears in the following collection(s): Current Policy http://www.aappublications.org/cgi/collection/current_policy Dentistry/Oral Health http://www.aappublications.org/cgi/collection/dentistry:oral_health_sub Section on Oral Health http://www.aappublications.org/cgi/collection/section_on_pediatric_dentistry_and_oral_health
Permissions & Licensing	Information about reproducing this article in parts (figures, tables) or in its entirety can be found online at: http://www.aappublications.org/site/misc/Permissions.xhtml
Reprints	Information about ordering reprints can be found online: http://www.aappublications.org/site/misc/reprints.xhtml

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



PEDIATRICS®

OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

Fluoride Use in Caries Prevention in the Primary Care Setting

Melinda B. Clark, Rebecca L. Slayton and SECTION ON ORAL HEALTH

Pediatrics 2014;134:626

DOI: 10.1542/peds.2014-1699 originally published online August 25, 2014;

The online version of this article, along with updated information and services, is located on the World Wide Web at:

<http://pediatrics.aappublications.org/content/134/3/626>

Pediatrics is the official journal of the American Academy of Pediatrics. A monthly publication, it has been published continuously since 1948. Pediatrics is owned, published, and trademarked by the American Academy of Pediatrics, 141 Northwest Point Boulevard, Elk Grove Village, Illinois, 60007. Copyright © 2014 by the American Academy of Pediatrics. All rights reserved. Print ISSN: 1073-0397.

American Academy of Pediatrics

DEDICATED TO THE HEALTH OF ALL CHILDREN™



ANNA M. ROTH, RN, MS, MPH
HEALTH SERVICES DIRECTOR

DAN PEDDYCORD, RN, MPA/HA
DIRECTOR OF PUBLIC HEALTH



**CONTRA COSTA
PUBLIC HEALTH**
CHILD HEALTH & DISABILITY
PREVENTION PROGRAM
2500 BATES AVENUE, SUITE B
CONCORD, CALIFORNIA 94520
PH (925) 313-6150
FAX (925) 608-6150
WWW.CCHEALTH.ORG/CHDP

May 2019

Dear CHDP Providers,

The Contra Costa County Child Health Disability Prevention (CHDP) Program, is now recommending fluoride varnish to all children ages six months (or after the eruption of the first tooth) thru five years old. This is in order to maintain and improve the oral health of young children in primary settings and also for the prevention of caries, as per the American Academy of Pediatrics (AAP), Recommendations for Preventive Pediatric Health Care Periodicity Schedule, regarding children's oral health, since 2015. (See www.aap.org/periodicityschedule).

Fluoride varnishing that is now recommended 2-4 times annually, or every 3-6 months, has been shown to decrease and prevent oral caries, by supporting healthy tooth enamel while preventing bacterial damage to dentition. See article "Fluoride Use in Caries Prevention in the Primary Care Setting." (<http://pediatrics.aappublications.org/content/134/3/626>). If parents have concerns regarding the benefits vs risks of fluoride varnish usage, please refer them to their primary care providers.

This procedure of brush varnishing, the dentition with a protective resin coating with sodium fluoride, can be done in the primary care provider's office setting. It also can be done in the dentist's office, that has been established after a child's first birthday. Medi-Cal will pay physicians for the application of fluoride varnish. See pages 20-21 of the December 2018, "California CHDP/EPSDT Dental Training: Fluoride Varnish" manual, regarding Medi-Cal billing, CPT codes and purchasing fluoride varnish kits for office usage. (<http://www.dhcs.ca.gov/services/chdp/Pages/FluorideVarnish.aspx>) Also, the complete fluoride varnish training is provided in the "California CHDP/EPSDT Dental Training: Fluoride Varnish," manual, as referenced above.

Please review this training manual.

Contra Costa County CHDP staff, will be providing additional training for your office staff, as needed. We will contact you in the coming weeks, with further information regarding these trainings.

Thank you,

Michelle Rivero
Child Health and Disability Prevention Program
2500 Bates Ave., Suite B
Concord, CA 94520
925-313-6150
chdp@cchealth.org





California CHDP/EPSTD Dental Training: Fluoride Varnish

Child Health and Disability Prevention (CHDP) Program
Oral Health Subcommittee
December 2018



Training Objectives



- Identify children at risk for dental decay and who would benefit from fluoride varnish.
- Recognize the importance of providing fluoride varnish to high risk children (0 up to 6 years) in the medical office.
- Establish a protocol to implement fluoride varnish application in the medical office.
- Apply fluoride varnish and share information with other office staff.



Fluoride Varnish



The CHDP/EPSTD Medical Provider Role





CHDP Providers Prevent Dental Decay



- Young children are seen earlier and more frequently by medical providers than by a dentist
- Low income young children are often at higher risk for dental decay
- Medical providers are now placing fluoride varnish to prevent decay
- Research shows high **efficacy** of fluoride varnish*



*Fluoride Varnish Efficacy in Preventing Early Childhood Caries
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2257982/?tool=pubmed>



Fluoride Varnish – Who Needs It?



Caries Risk Factors:

- **Low Socioeconomic Status (SES)**
- **Active or Past Tooth Decay**
 - In parents, siblings, caregivers or child
 - White spot lesions on teeth
- **Poor Feeding Habits**
 - Frequent sipping and snacking on:
 - Carbohydrates – not just refined sugars
 - Bottle while sleeping/napping
 - Bottle after age 1



Fluoride Varnish – Who Needs It?



Caries Risk Factors (continued):

- **Lack of Fluoride Exposure***
- **No Recent Dental Visit**
 - Within the last year
- **Poor Homecare**
 - Lack of daily brushing and flossing
- **Children with Special Health Care Needs**

*California Water Board: List of Fully Fluoridated Water Systems (Fluoridation by Public Water)



Fluoride Varnish – Which Teeth Benefit?



No Visible Decay

but may have high risk factors



Preventable with fluoride varnish and good home care

Beginning Decay

white chalky decalcification near gum line



Reversible with fluoride varnish and improved home care to inhibit progression of caries

Advanced Decay

Destroyed enamel



Irreversible, however with fluoride varnish decay progression is inhibited

Dental treatment needed ASAP

DO NOT Apply to Teeth with pulp exposure or tissue lesions



Avoid these areas, but apply fluoride varnish to all other teeth in the mouth.

Immediate treatment needed for severe decay



Fluoride Varnish - Facts



- A protective resin coating with sodium fluoride
- Brushed on teeth in 1-2 minutes
- 1 application can reduce decay risk up to 59%*
- Applied up to 5x per year
 - 3x in medical office
 - 2x in dental office





Frequency of Application



- Apply during a well child exam, follow-up visit, or stand-alone appointment.
- After the first fluoride varnish treatment, subsequent treatments can be applied every 3-4 months.

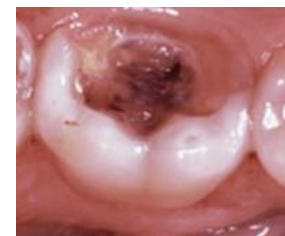




Fluoride Varnish Safety



- Fluoride varnish is recommended even if other types of fluoride are being used, including:
 - Systemic fluoride (e.g. water fluoridation, tablets or drops)
 - Other topical fluorides (e.g. fluoridated toothpaste, mouth rinses, foam or gel trays)
- **Contraindications:**
 - Allergy to colophony (resin from conifers) - rare
 - Ulcerative gingivitis and/or stomatitis
 - Pulp exposure or deep decay





Fluoride Varnish – Who Can Apply?



- Medical Office Setting
 - MD
 - Trained nurses and assistants
 - With MD/NP order *

- Community Setting**

(School, health fair or government program)

- Any trained person

- With signed parent/guardian permission
- Under a doctor's (or dentist's) prescription
- Following doctor's (or dentist's) protocol





Fluoride Varnish – Supplies Needed



- Gauze
- Gloves
- Varnish Packet
- Tray or napkin(s)
- Hand sanitizer
- Optional
 - Mouth Mirror
 - Toothbrush
- Post Procedure -
FV Brochure





Fluoride Varnish – How to Apply?



1. Dry teeth with gauze



2. Apply to all surfaces



3. Apply to front teeth



4. Apply to bottom teeth





Fluoride Varnish Procedure

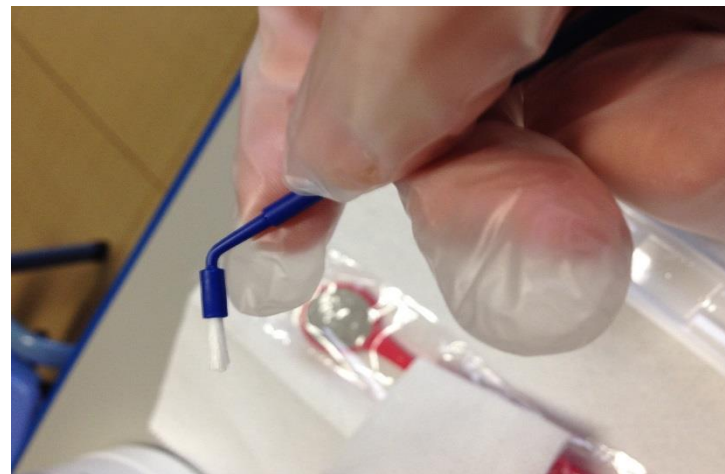


Prepare for treatment before positioning child

1. OPEN the packet of varnish
2. BEND the Brush
3. WRAP the gauze around finger

Next - position the child securing arms and legs

4. STIR varnish with applicator
5. DRY teeth lightly with gauze



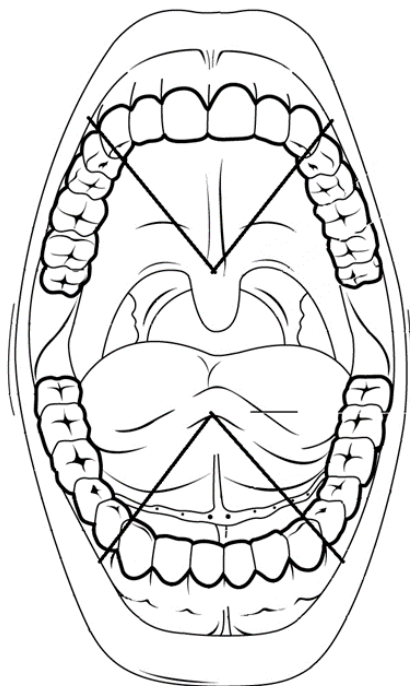


Fluoride Varnish – Positioning





Fluoride Varnish Procedure - continued



6. Work in sections
7. Retract cheeks with gauzed finger
8. Begin with upper right section of teeth.
9. Repeat on left side
10. Continue this method on lower right and left sections

Brush all surfaces of teeth focusing on:

- Where gums and teeth meet
- Chewing surfaces of molars
- Upper front teeth – do not forget “tongue” side (lingual)





Fluoride Varnish Procedure –

Key Point: Focus on Critical Teeth Surfaces



Apply to:

- Chewing surfaces of molars, into fissures and between teeth
- Upper front teeth – do not forget “tongue” side
- Where gums and teeth meet





Fluoride Varnish – Parent Information



- No water restrictions after application
- Avoid crunchy, chewy, and hot foods/drinks for the rest of the day
- Do not brush/floss until the next day
- Fluoride Varnish may leave a light color coating that will be brushed off the next day

Brochure

Fluoride Varnish



**Helping
Smiles
Stay Strong**



Fluoride Varnish – Talking Points



- Fluoride Varnish does not take the place of:
 - A dental visit
 - Brushing with fluoride toothpaste twice a day
 - Limiting sweets or sugary snacks
 - Drinking fluoridated tap water
- In addition to fluoride varnish at medical offices, dentists can also provide fluoride varnish or other topical fluoride treatments twice a year.



Fluoride Varnish - Billing



Reimbursable 3 times (in a 12 month period)
for children age 0 through 5

- **Fee-for-Service Medi-Cal**
 - Billing code: CPT 99188*
 - Reimbursement - \$18 per application
- **Managed Care Medi-Cal**
 - Reimbursement varies
 - Contact individual plan
- **FQHC/RHC/IHS**
 - Not billable as a separate procedure

*Medi-Cal Rates (Codes 94799 thru 99600) (DHCS)

<http://files.medi->

[cal.ca.gov/pubsdoco/rates/rates_information.asp?num=22&first=94799&last=99600](http://files.medi-cal.ca.gov/pubsdoco/rates/rates_information.asp?num=22&first=94799&last=99600)



Fluoride Varnish – How to Order



Three Ways:

1. Directly:

- Center for Oral Health 909-469-8300
<https://centerfororalhealth.org/store/>

2. Choose from list:

- AAP Ordering list
<https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Oral-Health/Documents/fluoride-varnish-manufacturers.pdf>

3. Internet search:

- Use search term “fluoride varnish buy”





Fluoride Varnish –

How to Implement in Your Practice



- Establish Health Records (EMR) for documentation
- Engage staff - information meetings
- Practicum training
- Identify champion(s)
- Identify workflow
- Train on documentation
- Publicize to patient parents
- Set start date
- Share progress



Medical team provides fluoride varnish



Fluoride Varnish – Establish a Protocol



- Identify:
 - ages to get FV
 - interval periods
- Establish standing order - Rx
- Assign duties to MA, or other trained staff
- Document in health record
- Give post procedure instructions
- Start slowly





Easy and Effective



- Can be delegated to nursing and medical assistant staff, which empowers them to be the front line against oral disease.
- Can be applied at any time after the oral assessment.
- Can prevent a cavity with a swipe of a fluoride varnish brush.

With just a swipe of fluoride varnish, I can prevent tooth decay for this little girl!





Fluoride Varnish Online Trainings



Videos



American Academy of Pediatrics Television

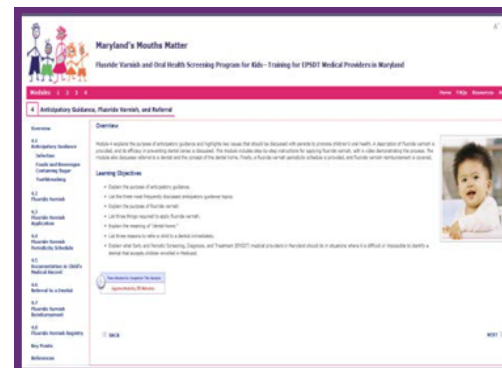
<http://www.youtube.com/watch?v=zNOIGS1ggSg&feature=player>



Smiles for Life University of Connecticut

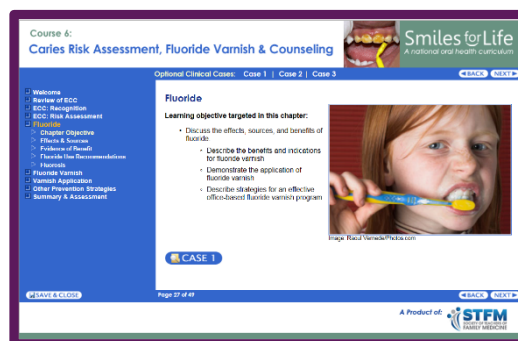
<http://www.youtube.com/watch?v=cV5OmL7C8K4&feature=player>

Modules



Maryland's Mouths Matter Module 4

http://www.mchoralhealth.org/flvarnish/mod4_0.html



Smiles for Life Training: Course #6

<https://www.smilesforlifeorhealth.org/buildcontent.aspx?pagekey=66053&lastpagekey=64596&userkey=13873165&sessionkey=4170799&tut=584&customerkey=84&custsitegroupkey=0>



Working Together



Medical Providers



Dental Providers

**Together we can
stop the
epidemic of
oral disease!**



Parents/Caregivers



Individuals



Questions?



Fluoride Varnish - Practicum -



- Speaker Demonstration
- Participant Practice

California Child Health & Disability Prevention (CHDP) Program
Oral Health Subcommittee
December 2018



Thank you!

**To view resources for this training,
visit the References page**

(<http://www.dhcs.ca.gov/services/chdp/Documents/CHDPDental/Slide19.pptx>)

To access this training, visit CHDP Dental and other trainings

(www.dhcs.ca.gov/services/chdp/Pages/Training.aspx)

**Visit the CHDP County Offices website for your
local CHDP contact information**

(www.dhcs.ca.gov/services/chdp/Pages/CountyOffices.aspx)

COMMUNICABLE DISEASE NEWSLETTER

September 2019 • Issue 3

NEWSLETTER FOR HEALTH PARTNERS IN CONTRA COSTA COUNTY, CALIFORNIA

In this Issue:

- **International Travel Planning** for the Holidays
- **Immunization Updates** – Back-to-School
- **Influenza** – 2019-2020 Season Updates
- **Botulism** – A Health Emergency
- **Rabies** – Postexposure Prophylaxis

Disease Reporting

- [List of Reportable Diseases](#)
- [Confidential Morbidity Reports](#)
- [List of Laboratory Reportable Diseases](#)

Communicable Diseases

8am – 5pm, M-F
Phone: (925) 313-6740
Fax: (925) 313-6465

Sexually Transmitted Diseases

8am – 5pm, M-F
Phone: (925) 313-6750
Fax: (925) 313-6758

Public Health Laboratory

8am – 5pm, M-F
Phone: (925) 370-5775
Fax: (925) 370-5252

After Hours Public Health

5pm – 8am, M-F and
24hrs, Sat and Sun
Call County Sheriff's Dispatch
Phone: (925) 646-2441
Ask for Health Officer On-Call

To Our Health Partners in the Community

Please visit <https://cchealth.org/providers/> to subscribe to our electronic version of this newsletter and view local health alerts and advisories. Please contact us at CoCoCD@cchealth.org with suggested newsletter topics and comments. For urgent questions or to report a communicable disease, please call us at (925) 313-6740.

International Travel Planning

The Holidays are a popular time for extended international travel to visit friends and family. Measles, typhoid fever, and vector-borne diseases are some of the conditions we see in Contra Costa County residents returning from abroad. For more information, check the CDC Travelers' Health webpage for country travel advisories and disease specific health recommendations: <https://wwwnc.cdc.gov/travel>

Measles

Make sure your patients who are traveling internationally are protected from measles. There are measles outbreaks occurring in many areas of the world, including the US, Europe, Asia and Africa. The CDC recommends that all international travelers be protected against measles. Before traveling internationally,

- **Infants (6-11 months):** one doses of measles-mumps-rubella (MMR) vaccine.
- **Children (1 year or older):** 2 doses MMR vaccine. The doses can be given outside routine schedule and as close as 28 days apart.
- **Adults:** documentation of 2 doses of measles-containing vaccine or evidence of immunity.

For more information: <https://www.cdc.gov/measles/hcp/index.html>

Typhoid Fever

Typhoid fever is common worldwide except in industrialized regions such as the US, Canada, western Europe, Australia, and Japan. US travelers to typhoid-endemic regions should receive pre-travel vaccination at least 1-2 weeks before traveling. US travelers to typhoid-endemic regions should also be advised regarding safe food and water practices while abroad.

Other Routine Vaccinations

Travelers may also need routine (non-travel) vaccines or boosters before travel including: influenza, tetanus (Td or Tdap), varicella, pneumococcus, and polio.

Malaria

It is important to discuss malaria prophylaxis with **ALL** travelers who are going to areas with malaria transmission, regardless of previous travel or habitation in that area. All travelers going to malaria-endemic countries, which include parts of Africa, Latin America, the Caribbean, Asia, the Middle East, Eastern Europe, and the South Pacific are at risk for contracting the disease. Almost all the approximately 1,700 cases of malaria per year in the United States are imported cases of disease.

General Mosquito-Borne Disease Precautions

To decrease risk of all mosquito-borne diseases (e.g. chikungunya, dengue, yellow fever, zika, etc.) advise patients to prevent mosquito bites by using insect repellents, wearing long-sleeve shirts and pants, and sleeping under a mosquito bed net if sleeping outside or in a room that does not have screens or air conditioning.

Immunization Updates

School Entry Immunizations

Students entering childcare, preschool, transitional kindergarten and grades K-12 will need proof of vaccination for admission per California law.

Parents must show their child's Immunization Record as proof of immunization.

For more information on requirements by age/grade level, visit:
<https://www.shotsforschool.org/>

Required Immunizations for School Admissions:

Guidance Changes as of July 1, 2019:

- **NEW!**
Varicella
(Chickenpox)
2 doses are now required for 7th grade



Influenza 2019-2020 Season Updates

Routine annual influenza vaccination is recommended for **all persons aged 6 months and above** who do not have contraindications to vaccination. Optimally, vaccination should occur before the onset of influenza activity in the community. Health care providers should offer vaccination by the end of October, if possible. Vaccination should continue through the spring.

Influenza Vaccine Formulation for 2019-20:

- A/Brisbane/02/2018 (H1N1)pdm09-like virus*
- A/Kansas/14/2017 (H3N2)-like virus*
- B/Colorado/06/2017-like virus (Victoria lineage)
- B/Phuket/3073/2013-like virus (quadrivalent formulations only)

*new for this year

Vaccination Recommendations

Children Aged 6 Months Through 8 Years:** For optimum protection the Advisory Committee on Immunization Practices (ACIP) recommends that children aged 6 months through 8 years who have **not** previously received ≥ 2 doses of trivalent or quadrivalent influenza vaccine before July 1, 2019 (these doses do not need to be administered in consecutive seasons) receive 2 doses for the 2019-20 season. The interval between the 2 doses should be at least 4 weeks.

Pregnant Women:** Pregnant and postpartum women are at higher risk for severe illness and complications from influenza, particularly during the second and third trimesters. ACIP and the American College of Obstetricians and Gynecologists recommend that all women who are pregnant or who might be pregnant during the influenza season receive influenza vaccine. Any licensed, recommended, and age-appropriate preservative-free flu vaccine may be used. Intranasal flu vaccine (FluMist) should not be used during pregnancy. Influenza vaccine can be administered at any time during pregnancy.

**Per [California law](#), pregnant women and children under 3 years of age may only receive preservative-free vaccine.

Older Adults: Because of the vulnerability of this population to severe influenza illness, hospitalization, and death, influenza vaccination among older adults is recommended. High dose and adjuvanted flu vaccine have better effectiveness in this population, however there is no formal preference for any vaccine product by the ACIP. For persons aged ≥ 65 years, any age-appropriate influenza formulation (standard-dose or high-dose, trivalent or quadrivalent, unadjuvanted or adjuvanted) or recombinant inactivated influenza vaccine are acceptable options. Vaccination should not be delayed if a specific product is not readily available.

For more information, see the recent report 'Prevention and Control of Seasonal Influenza with Vaccines' (CDC MMWR, August 23, 2019)

https://www.cdc.gov/mmwr/volumes/68/rr/rr6803a1.htm?s_cid=rr6803a1_w

Prevention & Control Activities

Outbreak Detection and Reporting

Report to Public Health (per Title 17, California Code of Regulations (CCR) §2500 & 2505)

1. **Laboratory-Confirmed** influenza-related pediatric deaths (ages 0-17 years)
2. **Acute Respiratory Outbreaks** in **both** healthcare **and** congregate living settings, such as residential living facilities (retirement community, assisted living, board & care, skilled nursing facilities, rehabilitation centers, homeless and evacuation shelters, camps, jails, etc.)

An outbreak is defined as:

- One lab-confirmed influenza case in a healthcare or congregate living setting.
- 2 or more cases of new onset respiratory illness within 72 hours (3 days) in a healthcare or congregate living settings.
- Any influenza illness associated with animal exposure (pigs, poultry, and other animals that can be infected with variant influenza viruses).

Botulism

Reporting, Antitoxin Release, Lab Testing & Public Health Investigation

Botulism is a neuroparalytic illness caused by *Clostridium botulinum* neurotoxins. Early symptoms may include double/blurred vision, drooping eyelids, slurred speech, difficulty swallowing, dry mouth, and muscle weakness. Neurologic symptoms generally begin 12 to 36 hours after ingestion of toxin and can progress to a symmetric, descending flaccid paralysis that begins in the cranial nerves.

Untreated, botulism can progress to respiratory paralysis and death. If administered early in the course of illness, botulism antitoxin can stop the progression of, but cannot reverse, paralysis. Antitoxin is available exclusively from public health authorities.

How to Obtain Antitoxin

As soon as botulism is suspected, call the Public Health Communicable Disease (CD) to start the process of obtaining antitoxin. CD staff can be reached at 925-313-6740 or, after-hours (M-F 5pm to 8am and 24hrs Sat. & Sun.), call County Sheriff's dispatch at 925-646-2441 and ask for the Health Officer on-call.

If infant botulism is suspected, contact the California Infant Botulism Program directly to obtain infant antitoxin (BabyBIG) <http://www.infantbotulism.org/physician/obtain.php>

Serum samples along with stool specimens should be collected prior to antitoxin administration for botulism testing, but do not wait for the results of testing before administering antitoxin. Patients should be given antitoxin as soon as it is available. Laboratory info: www.cdph.ca.gov/Programs/CID/DCDC/Pages/TestOrderAdultBot.aspx

Three Main Types of Botulism

- **Foodborne botulism** – acquired by eating food contaminated with botulinum toxin. Common food sources include: home-canned, preserved or fermented foods. Commercial foods that are improperly prepared or stored can also be a source of toxin.
- **Wound botulism** – wounds can become infected with *C. botulinum* bacteria. Persons who inject drugs are at increased risk of becoming infected with wound botulism.
- **Infant botulism** – spores get into intestines where they grow and produce toxin and subsequent illness.

Timely Public Health Investigation

Although foodborne botulism remains a rare occurrence in California, each case represents a medical and public health emergency. The CD Programs conduct a thorough investigation of every botulism case to determine the source. If foodborne botulism is suspected, the CD Programs work with the Contra Costa Environmental Health Program to identify the food item and remove it from distribution as quickly as possible.

Rabies


Timely Reporting to Animal Services & Administration of Postexposure Prophylaxis

Rabies virus is transmitted when a rabid animal bites a human or another mammal and virus-laden saliva enters the wound, incubating in the muscle tissue before making its way through the nervous system to the brain. Although rabies is almost always fatal, rabies postexposure prophylaxis (PEP) is extremely effective at preventing disease. Rabies PEP consists of infusing rabies immunoglobulin directly around the wound and administering the rabies vaccine series.

In California, rabies can be found in certain wildlife species and has the potential to spread to pets, farm animals, and people. Bats are most commonly found to be infected with rabies, but rabies has also been detected in other wild animals such as skunks and foxes. Rabies is rarely identified in domestic animals such as dogs and cats due to routine vaccination, but unvaccinated domestic animals who have had contact with wildlife can become infected.

Postexposure Prophylaxis (PEP): Urgency of RIG and Rabies Vaccine Administration

Rabies PEP, administered after a possible exposure, is highly effective at preventing the progression to rabies disease. However, once an infected person develops symptoms of rabies there is no effective treatment and the infected person will likely die within a few days.

RABIES 
Postexposure Prophylaxis (PEP)
From the 2010 recommendations of the Advisory Committee on Immunization Practices (ACIP)

What is rabies PEP?
Rabies PEP includes:
• Wound cleaning
• Rabies immune globulin (RIG)
• A series of rabies vaccinations* For persons who have not previously been vaccinated against rabies
*For persons who have NOT previously been vaccinated against rabies

When is it indicated?
PEP should be given to anyone with suspected exposure to the rabies virus. Exposure usually occurs via bites from wildlife such as bats and skunks, but dogs, cats, and other mammals can also transmit the virus. Call Contra Costa Public Health at 925-313-6740 if you would like help in assessing exposure risk.

How should rabies PEP biologics be administered?

Not previously vaccinated	RIG (20 IU/kg) Vaccine (1 mL)	Infiltrate wounds with full dose, if possible. Inject remaining volume IM in a site distant from vaccine. Inject IM in deltoid on days 0, 3, 7, and 14.
Previously vaccinated	RIG (20 IU/kg) Vaccine (1 mL)	Do not administer. Inject IM in deltoid on days 0 and 3.

Important Dos and Don'ts!

Do	Don't
<input checked="" type="checkbox"/> Infiltrate all wounds with RIG, unless patient was previously vaccinated.	<input checked="" type="checkbox"/> Inject any rabies biologic in the gluteus unless the record is located there.
<input checked="" type="checkbox"/> Put as much of the RIG as anatomically feasible at the site of the wound(s).	<input checked="" type="checkbox"/> Give RIG to a previous recipient of PEP or pre-exposure vaccination.
<input checked="" type="checkbox"/> Inject vaccine in deltoid (or thigh in children).	<input checked="" type="checkbox"/> Inject RIG and vaccine at the same site, in the same limb or using the same syringe.
<input checked="" type="checkbox"/> Report PEP to Contra Costa Animal Services at 925-313-6740.	<input checked="" type="checkbox"/> Give more than the recommended dose of RIG.
<input checked="" type="checkbox"/> Call Contra Costa Public Health at 925-313-6740 with questions about rabies PEP questions.	

©2010 Contra Costa Public Health. All rights reserved. Reproduction of this poster is permitted for educational purposes. For more information on rabies PEP, please contact Contra Costa Public Health at 925-313-6740.

Download a copy of this poster:

<https://cchealth.org/rabies/pdf/bites-from-wildlife.pdf>

Bite Report: Initiation of Animal Services Investigation & Quarantine of Implicated Animal

Submit a 'Bite Report' form to Contra Costa Animal Services. The form can be found at:

<https://cchealth.org/rabies/pdf/bite-report.pdf>

More resources at cchealth.org/providers/



[Contra Costa Health Services](https://www.facebook.com/ContraCostaHealthServices)



[@CoCoHealth](https://twitter.com/CoCoHealth)

Contra Costa Public Health
Communicable Disease Programs
597 Center Ave. Suite 200-A
Martinez, CA 94553
Phone: (925) 313-6740
Fax: (925) 313-6465
EMAIL: CoCoCD@cchealth.org

New Revisions of USPSTF Recommendations

<p>BRCA risk assessment</p> <p>(Asymptomatic)</p> <p>Bacteriuria screening: pregnant women</p>	<p>The USPSTF recommends that primary care clinicians assess women with a personal or family history of breast, ovarian, tubal, or peritoneal cancer or who have an ancestry associated with breast cancer susceptibility 1 and 2 (<i>BRCA1/2</i>) gene mutations with an appropriate brief familial risk assessment tool. Women with a positive result on the risk assessment tool should receive genetic counseling and, if indicated after counseling, genetic testing.</p> <p>The USPSTF recommends screening for asymptomatic bacteriuria using urine culture in pregnant persons.</p>	<p>B</p> <p>B</p>	<p>August 2019*</p> <p>September 2019*</p>
<p>Breast cancer preventive medications</p>	<p>The USPSTF recommends that clinicians offer to prescribe risk-reducing medications, such as tamoxifen, raloxifene, or aromatase inhibitors, to women who are at increased risk for breast cancer and at low risk for adverse medication effects.</p>	<p>B</p>	<p>September 2019*</p>

In 2005 and 2013, the USPSTF recommended that women whose family history is associated with an increased risk for potentially harmful mutations in the *BRCA1/2* genes be referred for genetic counseling and evaluation for *BRCA1/2* testing. It also recommended against routine referral for genetic counseling or routine *BRCA1/2* mutation testing for women whose family history is not associated with an increased risk for potentially harmful mutations in the *BRCA1/2* genes.^{14, 147} This Recommendation Statement is consistent with the USPSTF’s previous recommendation.

Since 2013, the validity of genetic testing for *BRCA1/2* mutations has been established and the potential benefits and harms of previously reviewed interventions, such as risk-reducing medications and surgery, have been studied for longer follow-up periods. In addition, there have been more studies of newer imaging techniques (breast MRI), surgical procedures (salpingo-oophorectomy rather than oophorectomy alone), and medications (aromatase inhibitors). **The updated recommendation expands the population eligible for screening to include women with a previous breast, ovarian, tubal, or peritoneal cancer diagnosis who have completed treatment and are considered cancer free and more explicitly includes ancestry associated with *BRCA1/2* mutations (ie, founder mutations) as a risk factor.**

In this update, the USPSTF continues to recommend screening for asymptomatic bacteriuria in pregnant persons with urine culture and recommends against screening in nonpregnant adults. **The USPSTF changed the grade for pregnant persons from an “A” to a “B” based on the reduced applicability of the previous evidence that included outdated antibiotic treatment regimens and newer evidence that shows a significantly lower risk of pyelonephritis than found in previous reviews.** In addition, there are newer concerns about antibiotic use, such as antimicrobial resistance and adverse changes to the microbiome (not addressed in current studies), leading to an increase in the magnitude of potential harms. These factors led the USPSTF to reduce assessments of certainty and magnitude of benefit, resulting in the change of grade.

Since 1996, the USPSTF has maintained an “A” recommendation for 1-time screening for asymptomatic bacteriuria with urine culture in pregnant persons between 12 and 16 weeks of gestation. The original 1996 recommendation was reaffirmed in 2004 and again in 2008.¹⁴⁻¹⁶ In 1996, the USPSTF found that there was insufficient evidence to recommend for or against screening in older adult women or women with diabetes and, in a separate recommendation, that screening was not recommended in other asymptomatic adults or older adults who reside in an institution.¹⁴ In 2004, these recommendations were combined into a single recommendation against screening, which was subsequently reaffirmed in 2008.

This recommendations is consistent with the 2013 USPSTF recommendation.⁸⁸ As before, the USPSTF recommends offering risk-reducing medications to women at increased risk for breast cancer and at low risk for adverse medication effects (B recommendation) and recommends against routine use of risk-reducing medications in women not at increased risk (D recommendation). **The current recommendation now includes aromatase inhibitors among medications that can reduce risk of breast cancer.**

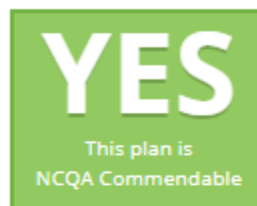
Contra Costa Health Plan

INSURANCE TYPE	Medicaid
PRODUCT TYPE	HMO
WEBSITE	http://www.cchealth.org
STATE(S) SERVED	California
MEMBERS ENROLLED	178547
OTHER NAMES	Medi-Cal

Star Results

ACCREDITATION CATEGORIES	RESULTS
Access and Service Access to needed care, offer good customer service.	★ ★ ★ ☆
Qualified Providers Ensuring doctors are licensed and patients are satisfied with their care.	★ ★ ★ ★
Staying Healthy Helping people maintain good health.	★ ★ ★ ☆
Getting Better Activities that help people get well.	★ ★ ★ ☆
Living with Illness Activities that help people live well while being sick.	★ ★ ☆ ☆

Overall Health Plan Accreditation



INSURANCE TYPE Medicaid ⓘ

PRODUCT TYPE HMO ⓘ

ACCREDITATION STATUS Commendable ⓘ

EVALUATION PRODUCT Renewal Survey ⓘ

STATUS MODIFIER None ⓘ

EXPIRATION DATE 02/24/20 ⓘ

NEXT REVIEW DATE 12/03/19 ⓘ

SCORED ON Standards, HEDIS, CAHPS

Recommendations for Preventive Pediatric Health Care

Bright Futures/American Academy of Pediatrics

Each child and family is unique; therefore, these Recommendations for Preventive Pediatric Health Care are designed for the care of children who are receiving competent parenting, have no manifestations of any important health problems, and are growing and developing in a satisfactory fashion. Developmental, psychosocial, and chronic disease issues for children and adolescents may require frequent counseling and treatment visits separate from preventive care visits. Additional visits also may become necessary if circumstances suggest variations from normal.

These recommendations represent a consensus by the American Academy of Pediatrics (AAP) and Bright Futures. The AAP continues to emphasize the great importance of continuity of care in comprehensive health supervision and the need to avoid fragmentation of care.

Refer to the specific guidance by age as listed in the *Bright Futures Guidelines* (Hagan JF, Shaw JS, Duncan PM, eds. *Bright Futures: Guidelines for Health Supervision of Infants, Children, and Adolescents*. 4th ed. Elk Grove Village, IL: American Academy of Pediatrics; 2017).

The recommendations in this statement do not indicate an exclusive course of treatment or standard of medical care. Variations, taking into account individual circumstances, may be appropriate.

Copyright © 2019 by the American Academy of Pediatrics, updated March 2019.

No part of this statement may be reproduced in any form or by any means without prior written permission from the American Academy of Pediatrics except for one copy for personal use.

AGE ¹	INFANCY									EARLY CHILDHOOD					MIDDLE CHILDHOOD						ADOLESCENCE																
	Prenatal ²	Newborn ³	3-5 d ⁴	By 1 mo	2 mo	4 mo	6 mo	9 mo	12 mo	15 mo	18 mo	24 mo	30 mo	3 y	4 y	5 y	6 y	7 y	8 y	9 y	10 y	11 y	12 y	13 y	14 y	15 y	16 y	17 y	18 y	19 y	20 y	21 y					
HISTORY	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
MEASUREMENTS																																					
Length/Height and Weight		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Head Circumference		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Weight for Length		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Body Mass Index ⁵												•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•		
Blood Pressure ⁶		★	★	★	★	★	★	★	★	★	★	★	★	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
SENSORY SCREENING																																					
Vision ⁷		★	★	★	★	★	★	★	★	★	★	★	★	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	
Hearing		• ⁸	• ⁹	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	→	
DEVELOPMENTAL/BEHAVIORAL HEALTH																																					
Developmental Screening ¹¹									•			•	•																								
Autism Spectrum Disorder Screening ¹²											•	•																									
Developmental Surveillance		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Psychosocial/Behavioral Assessment ¹³		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tobacco, Alcohol, or Drug Use Assessment ¹⁴																						★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
Depression Screening ¹⁵																							•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Maternal Depression Screening ¹⁶																																					
PHYSICAL EXAMINATION¹⁷		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
PROCEDURES¹⁸																																					
Newborn Blood		• ¹⁹	• ²⁰	→																																	
Newborn Bilirubin ²¹		•																																			
Critical Congenital Heart Defect ²²		•																																			
Immunization ²³		•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Anemia ²⁴										•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Lead ²⁵										• or ★ ²⁶	• or ★ ²⁶				•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
Tuberculosis ²⁷					★				★			★		★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
Dyslipidemia ²⁸												★		★																							
Sexually Transmitted Infections ²⁹																							★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
HIV ³⁰																							★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
Cervical Dysplasia ³¹																																					
ORAL HEALTH³²																																					
Fluoride Varnish ³⁴																																					
Fluoride Supplementation ³⁵																																					
ANTICIPATORY GUIDANCE	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•

- If a child comes under care for the first time at any point on the schedule, or if any items are not accomplished at the suggested age, the schedule should be brought up-to-date at the earliest possible time.
- A prenatal visit is recommended for parents who are at high risk, for first-time parents, and for those who request a conference. The prenatal visit should include anticipatory guidance, pertinent medical history, and a discussion of benefits of breastfeeding and planned method of feeding, per "The Prenatal Visit" (<http://pediatrics.aappublications.org/content/124/4/1227.full>).
- Newborns should have an evaluation after birth, and breastfeeding should be encouraged (and instruction and support should be offered).
- Newborns should have an evaluation within 3 to 5 days of birth and within 48 to 72 hours after discharge from the hospital to include evaluation for feeding and jaundice. Breastfeeding newborns should receive formal breastfeeding evaluation, and their mothers should receive encouragement and instruction, as recommended in "Breastfeeding and the Use of Human Milk" (<http://pediatrics.aappublications.org/content/129/3/e827.full>). Newborns discharged less than 48 hours after delivery must be examined within 48 hours of discharge, per "Hospital Stay for Healthy Term Newborns" (<http://pediatrics.aappublications.org/content/125/2/405.full>).
- Screen, per "Expert Committee Recommendations Regarding the Prevention, Assessment, and Treatment of Child and Adolescent Overweight and Obesity: Summary Report" (http://pediatrics.aappublications.org/content/120/Supplement_4/S164.full).

- Screening should occur per "Clinical Practice Guideline for Screening and Management of High Blood Pressure in Children and Adolescents" (<http://pediatrics.aappublications.org/content/140/3/e20171904>). Blood pressure measurement in infants and children with specific risk conditions should be performed at visits before age 3 years.
- A visual acuity screen is recommended at ages 4 and 5 years, as well as in cooperative 3-year-olds. Instrument-based screening may be used to assess risk at ages 12 and 24 months, in addition to the well visits at 3 through 5 years of age. See "Visual System Assessment in Infants, Children, and Young Adults by Pediatricians" (<http://pediatrics.aappublications.org/content/137/1/e20153596>) and "Procedures for the Evaluation of the Visual System by Pediatricians" (<http://pediatrics.aappublications.org/content/137/1/e20153597>).
- Confirm initial screen was completed, verify results, and follow up, as appropriate. Newborns should be screened, per "Year 2007 Position Statement: Principles and Guidelines for Early Hearing Detection and Intervention Programs" (<http://pediatrics.aappublications.org/content/120/4/898.full>).
- Verify results as soon as possible, and follow up, as appropriate.
- Screen with audiometry including 6,000 and 8,000 Hz high frequencies once between 11 and 14 years, once between 15 and 17 years, and once between 18 and 21 years. See "The Sensitivity of Adolescent Hearing Screens Significantly Improves by Adding High Frequencies" ([http://www.jahonline.org/article/S1054-139X\(16\)00048-3/fulltext](http://www.jahonline.org/article/S1054-139X(16)00048-3/fulltext)).
- See "Identifying Infants and Young Children With Developmental Disorders in the Medical Home: An Algorithm for Developmental Surveillance and Screening" (<http://pediatrics.aappublications.org/content/118/1/405.full>).

- Screening should occur per "Identification and Evaluation of Children With Autism Spectrum Disorders" (<http://pediatrics.aappublications.org/content/120/5/1183.full>).
- This assessment should be family centered and may include an assessment of child social-emotional health, caregiver depression, and social determinants of health. See "Promoting Optimal Development: Screening for Behavioral and Emotional Problems" (<http://pediatrics.aappublications.org/content/135/2/384>) and "Poverty and Child Health in the United States" (<http://pediatrics.aappublications.org/content/137/4/e20160339>).
- A recommended assessment tool is available at <http://craft.org>.
- Recommended screening using the Patient Health Questionnaire (PHQ)-2 or other tools available in the GLAD-PC toolkit and at http://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Mental-Health/Documents/MH_ScreeningChart.pdf.
- Screening should occur per "Incorporating Recognition and Management of Perinatal and Postpartum Depression Into Pediatric Practice" (<http://pediatrics.aappublications.org/content/126/5/1032>).
- At each visit, age-appropriate physical examination is essential, with infant totally unclothed and older children undressed and suitably draped. See "Use of Chaperones During the Physical Examination of the Pediatric Patient" (<http://pediatrics.aappublications.org/content/127/5/991.full>).
- These may be modified, depending on entry point into schedule and individual need.

(continued)

19. Confirm initial screen was accomplished, verify results, and follow up, as appropriate. The Recommended Uniform Screening Panel (<https://www.hrsa.gov/advisory-committees/heritable-disorders/rusp/index.html>), as determined by The Secretary's Advisory Committee on Heritable Disorders in Newborns and Children, and state newborn screening laws/regulations (<http://genes-r-us.uthscsa.edu/home>) establish the criteria for and coverage of newborn screening procedures and programs.
20. Verify results as soon as possible, and follow up, as appropriate.
21. Confirm initial screening was accomplished, verify results, and follow up, as appropriate. See "Hyperbilirubinemia in the Newborn Infant ≥35 Weeks' Gestation: An Update With Clarifications" (<http://pediatrics.aappublications.org/content/124/4/1193>).
22. Screening for critical congenital heart disease using pulse oximetry should be performed in newborns, after 24 hours of age, before discharge from the hospital, per "Endorsement of Health and Human Services Recommendation for Pulse Oximetry Screening for Critical Congenital Heart Disease" (<http://pediatrics.aappublications.org/content/129/1/190.full>).
23. Schedules, per the AAP Committee on Infectious Diseases, are available at http://redbook.solutions.aap.org/SS/Immunization_Schedules.aspx. Every visit should be an opportunity to update and complete a child's immunizations.
24. Perform risk assessment or screening, as appropriate, per recommendations in the current edition of the AAP *Pediatric Nutrition: Policy of the American Academy of Pediatrics* (Iron chapter).
25. For children at risk of lead exposure, see "Prevention of Childhood Lead Toxicity" (<http://pediatrics.aappublications.org/content/138/1/e20161493>) and "Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention" (http://www.cdc.gov/nceh/lead/ACCLPP/Final_Document_030712.pdf).
26. Perform risk assessments or screenings as appropriate, based on universal screening requirements for patients with Medicaid or in high prevalence areas.
27. Tuberculosis testing per recommendations of the AAP Committee on Infectious Diseases, published in the current edition of the AAP *Red Book: Report of the Committee on Infectious Diseases*. Testing should be performed on recognition of high-risk factors.
28. See "Integrated Guidelines for Cardiovascular Health and Risk Reduction in Children and Adolescents" (http://www.nhlbi.nih.gov/guidelines/cvd_ped/index.htm).
29. Adolescents should be screened for sexually transmitted infections (STIs) per recommendations in the current edition of the AAP *Red Book: Report of the Committee on Infectious Diseases*.
30. Adolescents should be screened for HIV according to the USPSTF recommendations (<http://www.uspreventiveservicestaskforce.org/uspstf/uspshivi.htm>) once between the ages of 15 and 18, making every effort to preserve confidentiality of the adolescent. Those at increased risk of HIV infection, including those who are sexually active, participate in injection drug use, or are being tested for other STIs, should be tested for HIV and reassessed annually.
31. See USPSTF recommendations (<https://www.uspreventiveservicestaskforce.org/Page/Document/UpdateSummaryFinal/cervical-cancer-screening2>). Indications for pelvic examinations prior to age 21 are noted in "Gynecologic Examination for Adolescents in the Pediatric Office Setting" (<http://pediatrics.aappublications.org/content/126/3/583.full>).
32. Assess whether the child has a dental home. If no dental home is identified, perform a risk assessment (<https://www.aap.org/en-us/advocacy-and-policy/aap-health-initiatives/Oral-Health/Pages/Oral-Health-Practice-Tools.aspx>) and refer to a dental home. Recommend brushing with fluoride toothpaste in the proper dosage for age. See "Maintaining and Improving the Oral Health of Young Children" (<http://pediatrics.aappublications.org/content/134/6/1224>).
33. Perform a risk assessment (<http://www2.aap.org/oralhealth/docs/RiskAssessmentTool.pdf>). See "Maintaining and Improving the Oral Health of Young Children" (<http://pediatrics.aappublications.org/content/134/6/1224>).
34. See USPSTF recommendations (<http://www.uspreventiveservicestaskforce.org/uspstf/uspstdnch.htm>). Once teeth are present, fluoride varnish may be applied to all children every 3–6 months in the primary care or dental office. Indications for fluoride use are noted in "Fluoride Use in Caries Prevention in the Primary Care Setting" (<http://pediatrics.aappublications.org/content/134/3/626>).
35. If primary water source is deficient in fluoride, consider oral fluoride supplementation. See "Fluoride Use in Caries Prevention in the Primary Care Setting" (<http://pediatrics.aappublications.org/content/134/3/626>).

Summary of Changes Made to the Bright Futures/AAP Recommendations for Preventive Pediatric Health Care (Periodicity Schedule)

This schedule reflects changes approved in December 2018 and published in March 2019.
For updates and a list of previous changes made, visit www.aap.org/periodicityschedule.

CHANGES MADE IN DECEMBER 2018

BLOOD PRESSURE

- Footnote 6 has been updated to read as follows: "Screening should occur per 'Clinical Practice Guideline for Screening and Management of High Blood Pressure in Children and Adolescents' (<http://pediatrics.aappublications.org/content/140/3/e20171904>). Blood pressure measurement in infants and children with specific risk conditions should be performed at visits before age 3 years."

ANEMIA

- Footnote 24 has been updated to read as follows: "Perform risk assessment or screening, as appropriate, per recommendations in the current edition of the AAP *Pediatric Nutrition: Policy of the American Academy of Pediatrics* (Iron chapter)."

LEAD

- Footnote 25 has been updated to read as follows: "For children at risk of lead exposure, see 'Prevention of Childhood Lead Toxicity' (<http://pediatrics.aappublications.org/content/138/1/e20161493>) and 'Low Level Lead Exposure Harms Children: A Renewed Call for Primary Prevention' (https://www.cdc.gov/nceh/lead/ACCLPP/Final_Document_030712.pdf)."



Health Resources & Services Administration

This program is supported by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services (HHS) as part of an award totaling \$5,000,000 with 10 percent financed with non-governmental sources. The contents are those of the author(s) and do not necessarily represent the official views of, nor an endorsement by, HRSA, HHS, or the U.S. Government. For more information, please visit HRSA.gov.