Prevention of Dental Caries in Children From Birth Through Age 5 Years: US Preventive Services Task Force Recommendation Statement

AUTHORS: Virginia A. Moyer, MD, MPH, on behalf of the US Preventive Services Task Force

KEY WORDS
dentistry/oral health, preventive medicine

ABBREVIATIONS
AAP—American Academy of Pediatrics
ADA—American Dental Association
NHANES—National Health and Nutrition Examination Survey
USPSTF—US Preventive Services Task Force

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It bases its recommendations on the evidence of both the benefits and harms of the service and an assessment of the balance. The USPSTF does not consider the costs of providing a service in this assessment.

The USPSTF recognizes that clinical decisions involve more considerations than evidence alone. Clinicians should understand the evidence but individualize decision making to the specific patient or situation. Similarly, the USPSTF notes that policy and coverage decisions involve considerations in addition to the evidence of clinical benefits and harms.

For a list of the USPSTF members, see the Appendix.

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Address correspondence to USPSTF Coordinator, Agency for Healthcare Research and Quality, 540 Gaither Rd, Rockville, MD 20850. E-mail: coordinator@uspstf.net.

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abstract

DESCRIPTION: Update of the 2004 US Preventive Services Task Force (USPSTF) recommendation on prevention of dental caries in preschool-aged children.

METHODS: The USPSTF reviewed the evidence on prevention of dental caries by primary care clinicians in children 5 years and younger, focusing on screening for caries, assessment of risk for future caries, and the effectiveness of various interventions that have possible benefits in preventing caries.

POPULATION: This recommendation applies to children age 5 years and younger.

RECOMMENDATION: The USPSTF recommends that primary care clinicians prescribe oral fluoride supplementation starting at age 6 months for children whose water supply is deficient in fluoride. (B recommendation) The USPSTF recommends 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) The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of routine screening examinations for dental caries performed by primary care clinicians in children from birth to age 5 years. (I Statement) *Pediatrics* 2014;133:1–10

SUMMARY OF RECOMMENDATIONS AND EVIDENCE

The US Preventive Services Task (USPSTF) recommends that primary care clinicians prescribe oral fluoride supplementation starting at age 6 months for children whose water supply is deficient in fluoride. (B recommendation)

The USPSTF recommends 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)

See the Clinical Considerations section for additional information on these preventive interventions.

The USPSTF concludes that the current evidence is insufficient to assess the balance of benefits and harms of routine screening examinations for dental caries performed by primary care clinicians in children from birth to age 5 years. (I Statement)

See the Clinical Considerations section for suggestions for practice regarding the I statement.

The target audience for USPSTF recommendations is primary care clinicians, who provide a wide range of health care services to individuals. Although dentists can be considered primary care providers of oral health needs, for the purposes of this recommendation statement, a primary care clinician or primary care provider is defined as a nondental health care professional (eg, physician, nurse practitioner).

RATIONALE

Importance

Dental caries is the most common chronic disease in children in the United States.[1] According to the 1999–2004 National Health and Nutrition Examination Survey (NHANES), ~42% of children ages 2 to 11 years have dental caries in their primary teeth. After decreasing from the early 1970s to the mid-1990s, the prevalence of dental caries in children has been increasing, particularly in young children ages 2 to 5 years.[2]

Recognition of Risk Status

Risk assessment tools generally evaluate risk based on factors such as demographic risk, personal and family

U.S. Preventive Services TASK FORCE

PREVENTION OF DENTAL CARIES IN CHILDREN FROM BIRTH THROUGH AGE 5 YEARS
CLINICAL SUMMARY OF U.S. PREVENTIVE SERVICES TASK FORCE RECOMMENDATION

Population	Children age 5 years and younger		
Recommendation	**Prescribe oral fluoride supplementation starting at age 6 months for children whose water supply is deficient in fluoride.** **Grade: B**	**Apply fluoride varnish to the primary teeth of all infants and children starting at the age of primary tooth eruption.** **Grade: B**	**Routine oral screening examinations: No recommendation.** **Grade: I statement**
Risk Assessment	All children are at potential risk for dental caries; those whose primary water supply is deficient in fluoride (defined as <0.6 ppm F) are at particular risk. While there are no validated multivariate screening tools to determine which children are at higher risk for dental caries, there are a number of individual factors that elevate risk, such as low socioeconomic status, being an ethnic minority, frequent sugar exposure or snacking, inappropriate bottle feeding, developmental defects of the tooth enamel, dry mouth, history of previous caries (in the child, a sibling, or mother), lack of access to dental care, and inadequate preventive measures (such as failure to use fluoride toothpaste).		
Preventive Medications	Oral fluoride supplementation prevents dental caries in children with inadequate water fluoridation. All children with erupted primary teeth can benefit from the periodic application of fluoride varnish, regardless of the levels of fluoride in their water.		
Balance of Benefits and Harms	There is a moderate net benefit of providing oral fluoride supplementation at recommended doses in children older than age 6 months who reside in communities with inadequate water fluoride.	There is a moderate net benefit of providing fluoride varnish application to all children starting at the age of eruption of primary teeth to age 5 years.	The evidence on performing routine oral screening examinations for dental caries in children from birth to age 5 years is insufficient, and the balance of benefits and harms cannot be determined.

For a summary of the evidence systematically reviewed in making this recommendation, the full recommendation statement, and supporting documents, please go to http://www.uspreventiveservicestaskforce.org/.

oral health history, dietary habits, fluoride exposure, and oral hygiene practices. Information from a clinical evaluation also has been proposed, as well as qualitative or quantitative measure of oral bacterial load. The USPSTF found no studies that evaluated the accuracy of risk assessment instruments for future dental caries in the primary care setting.

Benefits of Preventive Interventions and Early Detection

Preventive Interventions

The USPSTF found adequate evidence that oral fluoride supplementation, also known as dietary fluoride supplementation, in children who have low levels of fluoride in their water and application of fluoride varnish to the primary teeth of all children can each provide moderate benefit in preventing dental caries.

The USPSTF found insufficient evidence on the benefits of provider education of parents regarding oral hygiene practices to prevent dental caries in their children.

Screening

The USPSTF found no studies addressing the direct effect of routine oral screening examinations performed by primary care clinicians on improved clinical outcomes in children younger than 5 years.

Harms of Preventive Interventions and Early Detection

Preventive Interventions

The USPSTF found adequate evidence of a link between early childhood exposure to systemic fluoride and enamel fluorosis, a visible change in the appearance of the enamel due to altered mineralization. Fluorosis can range from mild (small white spots or streaks) to severe (discoloration, pitting, or rough enamel), depending on the overall systemic fluoride exposure level over time.

No studies specifically reported on the risk for fluorosis with fluoride varnish; however, compared with other topical fluoride interventions, systematic exposure to fluoride is low after varnish application.[3,4] It is important to consider a child's overall systemic exposure to fluoride from multiple sources (eg, water fluoridation, toothpaste, supplements, and/or varnish), but in the United States, enamel fluorosis presents as mild cosmetic changes in >99% of cases.[5]

The USPSTF concludes that there is limited evidence about the harms associated with fluoride varnish or other preventive interventions for dental caries, but that these risks are likely small.

Screening

The USPSTF found no studies addressing the magnitude of harms of screening children from birth to age 5 years for dental caries or future risk for dental caries in the primary care setting.

USPSTF Assessment

The USPSTF concludes with moderate certainty that there is a moderate net benefit of preventing future dental caries with oral fluoride supplementation at recommended doses in children older than 6 months who reside in communities with inadequate water fluoride.

The USPSTF concludes with moderate certainty that there is a moderate net benefit of preventing future dental caries with fluoride varnish application in all children starting at the age of eruption of primary teeth to age 5 years.

The USPSTF concludes that the evidence on performing routine oral screening examinations for dental caries in children from birth to age 5 years is insufficient, and the balance of benefits and harms of screening cannot be determined.

CLINICAL CONSIDERATIONS

Patient Population Under Consideration

This recommendation applies to children age 5 years and younger.

The USPSTF limited its consideration of caries screening and prevention by primary care clinicians to infants and preschool-aged children. The rationale for this decision was that, at the present time, nondental primary care clinicians are more likely than dentists to have contact with children ages 5 years and younger in the United States[6,7]; this situation changes as children reach school age and beyond. In addition, as children grow older, dental professionals use sealants rather than fluoride varnish. As such, the USPSTF limited its review of the evidence of preventive interventions for dental caries to this age group. This recommendation should not be construed to imply that preventive interventions for dental caries should cease after 5 years of age.

Assessment of Risk

All children are at potential risk for dental caries; those whose primary water supply is deficient in fluoride (defined as containing <0.6 ppm F) are at particular risk. Although there are no validated multivariate screening tools to determine which children are at higher risk for dental caries, there are a number of individual factors that elevate risk. Higher prevalence and severity of dental caries are found among minority and economically disadvantaged children. Other risk factors for caries in children include frequent sugar exposure, inappropriate bottle feeding, developmental defects of the tooth enamel, dry mouth, and a history

of previous caries. Maternal and family factors also can increase children's risk. These factors include poor oral hygiene, low socioeconomic status, recent maternal caries, sibling caries, and frequent snacking. Additional factors associated with dental caries in young children include lack of access to dental care; inadequate preventive measures, such as failure to use fluoride-containing toothpastes; and lack of parental knowledge about oral health.[8,9]

Some organizations have advocated restricting fluoride varnish use to children at "increased risk." Although several caries risk assessment tools exist, none have been validated in the primary care setting, nor do existing studies demonstrate that these tools, when used by primary care clinicians, can accurately and consistently differentiate between children who will develop dental caries and those who will not.[8,9] A risk-based approach to fluoride varnish application will miss opportunities to provide an effective dental caries preventive intervention to children who could benefit from it, particularly because currently, in the United States, infants and preschool-aged children are more likely to have regular visits with nondental primary care clinicians than dental care providers.[6,7]

Interventions to Prevent Dental Caries

As noted previously, oral fluoride supplementation prevents dental caries in patients with inadequate water fluoridation.

All children with erupted teeth can potentially benefit from the periodic application of fluoride varnish, regardless of the levels of fluoride in their water. Although the evidence to support varnish is drawn from higher-risk populations, the provision of varnish to all children is reasonable, as the prevalence of risk factors is high in the US population, the number needed to treat is low, and the harms of the intervention are small to none.

The USPSTF did not review the evidence on the effectiveness of tooth brushing, but regular tooth brushing with fluoride toothpaste by children is very important in preventing dental caries.[10]

Timing and Dosage of Preventive Interventions

No studies specifically addressed the dosage and timing of oral fluoride supplementation in children with inadequate water fluoridation. The American Dental Association (ADA) recommendations on the dosage of and age at which to start dietary fluoride supplementation take into account the amount of fluoride in the child's water source.[11] These dosing recommendations also are referenced by the American Academy of Pediatrics (AAP).[12]

No study directly assessed the appropriate ages at which to start and stop the application of fluoride varnish. Available trials of fluoride varnish enrolled children ages 3 to 5 years; however, given the mechanism of action of this intervention, benefits are very likely to accrue starting at the time of primary tooth eruption. Limited evidence found no clear effect on caries increment between performing a single fluoride varnish once every 6 months versus once a year[13] or between a single application every 6 months versus multiple applications once a year or every 6 months.[14,15]

Suggestions for Practice Regarding the I Statement

In deciding whether to routinely perform screening examinations for dental caries in children from birth to age 5 years, clinicians should consider the following factors.

Potential Preventable Burden

Dental caries is the most common chronic disease in children in the United States. It is 4 times more common than childhood asthma and 7 times more common than hay fever. According to the NHANES, the prevalence of dental caries has risen from 24% to 28% between 1988–1994 and 1999–2004.[2] Approximately 20% of surveyed children with caries had not received treatment. Symptomatic dental caries in children are associated with pain, loss of teeth, impaired growth, and decreased weight gain, and can affect appearance, self-esteem, speech, and school performance. Dental-related concerns lead to the loss of more than 54 million school hours each year.[16]

Potential Harms

No studies examined the harms of performing primary care screening examinations for dental caries in children from birth to age 5 years.[8,9] However, given the noninvasive nature of an oral examination, these harms are expected to be minimal.

Current Practice

In one study, only about half of pediatricians reported examining the teeth of half of their patients ages 0 to 3 years.[17]

Other Approaches to Prevention

In April 2013, the Community Preventive Services Task Force recommended fluoridation of community water sources based on strong evidence of effectiveness in reducing dental caries.[18] It also recommends school-based dental sealant delivery programs to prevent caries.

Xylitol may have promise as an additional method to reduce the risk for dental caries. Xylitol is classified by the US Food and Drug Administration as a dietary supplement and is found in over-the-counter consumer products,

such as wipes or gum. A single small, fair-quality trial of xylitol wipes use in children ages 6 to 35 months found a 91% relative reduction in decayed, missing, or filled surface increment[19]; however, 4 other studies showed no clear effect of xylitol on caries risk in children younger than 5 years.[20–23] As such, there is currently not enough evidence to formally recommend its routine use in caries prevention.

OTHER CONSIDERATIONS

Implementation

Many primary care providers already prescribe oral fluoride supplementation to patients with low levels of fluoride in their water; however, application of fluoride varnish is not currently commonly performed in many primary care offices (estimated at about 4% of practices in 2009).[17] The techniques for application are simple and easy to learn, and fluoride varnish does not require specialized equipment or personnel and can be applied quickly. However, providers and other qualified staff may require some training before offering this procedure.[24,25] Dentists and physicians can apply varnish in all states. In some states, physician assistants, nurse practitioners, nurses, and medical assistants can do so also.

Efforts are under way to address concerns surrounding resources, infrastructure, training, and payment mechanisms for the provision of fluoride varnish in the nondental primary care setting. For example, the AAP Section on Oral Health has partnered with the Health Resources and Services Administration's Maternal and Child Health Bureau and the ADA Foundation to educate and advocate for primary pediatric care professionals to apply fluoride varnish. They have created a Web site with a number of helpful tools and resources to assist nondental primary care providers, including how to acquire the materials required to provide varnish, as well as state-by-state information on billing codes and any training requirements (available at http://www2.aap.org/oralhealth/PracticeTools.html). The National Interprofessional Initiative on Oral Health, a consortium of funders and health professionals, focuses on educating and training primary care clinicians on oral health prevention (additional information is available at http://www.niioh.org).

Cost

State Medicaid reimbursement for fluoride varnish application, when offered, ranges from $9 to $53 per application when applied by licensed providers who have had appropriate training, including physicians, physician assistants, nurse practitioners, registered nurses, and licensed practical nurses (varying by state).[26]

Research Needs and Gaps

Studies are needed to assess and validate multivariate risk assessment tools that can accurately identify high-risk populations most likely to benefit from caries preventive interventions, such as fluoride varnish.

Further research also would be helpful to confirm the benefits of fluoride varnish among lower-risk and younger children.

Racial and ethnic minority children, as well as children living in low socioeconomic conditions, are at significantly increased risk for caries compared with white children and children who live in adequate to high socioeconomic conditions. Future studies on risk assessment and preventive interventions should enroll sufficient numbers of racial and ethnic minority children to understand the benefits and harms of interventions in these specific populations.

More research also is needed to estimate the effectiveness of interventions by clinicians to educate parents and caregivers about optimum health practices for oral hygiene at home.

DISCUSSION

Burden of Disease

Dental caries is the most common chronic disease in children in the United States, and is increasing in prevalence among young children.[1] According to the NHANES, the prevalence of tooth decay in primary teeth in children ages 2 to 5 years increased from approximately 24% to 28% between 1988–1994 and 1999–2004.[2] Approximately 20% of surveyed children with caries had not received treatment of the condition.

In addition, the NHANES found that among children ages 2 to 11 years, 54% of children in households living below the federal poverty threshold had primary dental caries, as well as one-third of children in households living 200% above the poverty threshold. Fifty-five percent of Mexican American children have dental caries compared with 43% of African American children and 39% of white children. Mexican American children also are more likely to have untreated dental caries (33%) than African American (28%) and white (20%) children.[2]

Early childhood caries can cause pain, loss of teeth, caries later in life, impaired growth/weight gain, missed school days, and negative effects on quality of life. Caries in early childhood are associated with failure to thrive and can affect speech, appearance, and school performance. They are also associated with an increased risk for caries in additional primary or permanent teeth. More than 51 million hours of school are missed each year because of childhood dental concerns.[16]

Scope of Review

To update the 2004 recommendation, the USPSTF commissioned a systematic

review of the evidence on prevention of dental caries by primary care clinicians in children 5 years and younger. The review focused on screening for caries, assessment of risk for future caries, and the effectiveness of various interventions that have possible benefits in preventing caries.

Risk Assessment

No studies assessed the effectiveness of the use of formal risk assessment tools by primary care clinicians in identifying children at highest risk for dental caries. Although there are tools available from several professional organizations for use in the primary care setting, no studies evaluated their performance or use.

Effectiveness of Preventive Interventions

Fluoride Supplementation

Six older studies[27–32] assessed the effectiveness of oral fluoride supplementation; the USPSTF found no new studies since its previous 2004 review. Although the studies had some methodological limitations, such as lack of adjustment for potential confounders, inadequate blinding, or unreported attrition, and were fairly heterogeneous, they support the conclusion that oral fluoride supplementation leads to decreased dental caries in children 5 years and younger who have inadequate fluoridation in their water. The single randomized trial (n = 140; fluoridation level <0.1 ppm F) found that 0.25-mg fluoride drops or chews were associated with decreased risk for caries versus no fluoride supplementation in Taiwanese children age 2 years at enrollment.[31] Relative reductions ranged from 52% to 72% for decayed, missing, and filled teeth and from 51% to 81% for decayed, missing, and filled tooth surfaces. Across all 6 trials, relative reductions with fluoride supplementation ranged from 32% to 72% for decayed, missing, and filled teeth and from 38% to 81% for decayed, missing, and filled tooth surfaces versus placebo (vitamin drops) or no supplementation.[8,9]

Fluoride Varnish

Three recent good- and fair-quality trials assessed professionally applied topical fluoride varnish in children 5 years and younger. The trials compared fluoride varnish applied every 6 months with no fluoride varnish. One was conducted in rural Canadian Native populations without water fluoridation and another was conducted in an Australian aboriginal community with water fluoridation levels of <0.6 ppm F for nearly 90% of participants.[33,34] The third trial enrolled primarily Latino and Chinese underserved children in an urban US community with adequate water fluoridation.[13] All 3 trials found that fluoride varnish was associated with a decreased risk for dental caries after 2 years. Absolute mean reductions in the number of affected tooth surfaces ranged from 1.0 to 2.4.[8,9]

Three fair-quality studies evaluated the effect of frequency of fluoride varnish application on caries outcomes.[13–15] Two found that multiple fluoride varnish applications within a 2-week period were associated with no statistically significant differences in caries incidence versus a 6-month application schedule.[14,15] One trial found no statistically significant difference in caries rates for once- versus twice-yearly varnish application.[13] The optimum frequency of fluoride varnish application is not known.

Effectiveness of Screening

No studies examined the effectiveness of routine oral screening examinations performed by primary care clinicians in preventing dental caries.[8,9]

Potential Harms of Preventive Interventions

The USPSTF considered a recently updated systematic review on enamel fluorosis that includes 5 new studies that were not available for the 2004 recommendation.[35] These observational studies consistently found an association between early childhood exposure to systemic fluoride and enamel fluorosis. The evidence is limited in that measures of early childhood fluoride exposure were based on parental recall.[8,9] Risk estimates ranged from an odds ratio of 10.8 (95% confidence interval 1.9–62.0) for exposure during the first 2 years of life to a slight increase in risk (odds ratio, 1.1–1.7, depending on comparison).[35] Fluorosis can range from mild (small white spots or streaks) to severe (discoloration, pitting, or brown staining), depending on the overall systemic fluoride exposure level over time. In the United States, the prevalence of severe enamel fluorosis is estimated at <1%.[5]

No studies reported the risk for fluorosis with fluoride varnish application; however, the degree of systemic fluoride exposure after varnish application is low.[3,4]

Potential Harms of Screening

No studies compared harms in children who were receiving routine oral screening examinations versus those not screened for dental caries by primary care providers.[8,9]

Estimate of Magnitude of Net Benefit

The USPSTF concludes with moderate certainty that there is a moderate net benefit to prescribing oral fluoride supplementation at recommended doses starting at age 6 months to children with inadequate fluoride in their water.

There is also moderate net benefit to applying fluoride varnish to the primary teeth of all infants and children starting at the age of primary tooth eruption.

The USPSTF found inadequate evidence on the effectiveness of routine caries screening examinations performed by primary care providers to improve outcomes in children 5 years and younger. The USPSTF also found inadequate evidence regarding the potential harms.

Therefore, the USPSTF concludes that the evidence on the benefits and harms of routine caries screening examinations performed by primary care providers in children 5 years and younger is lacking, and the balance of benefits and harms cannot be determined.

How Does Evidence Fit With Biologic Understanding?

Systemic fluoride becomes incorporated into tooth structures during their formation. If fluoride is ingested repeatedly during tooth development, it is deposited throughout the tooth surface and provides protection against caries. Topical fluoride treatments, such as varnishes, help protect teeth that are already present. In this method, fluoride is incorporated into the surface layer of the teeth, making them more resistant to decay. Systemic fluoride also provides some measure of topical effects, as it is found in the saliva and bathes the teeth. Thus, providing both systemic and topical fluoride to children during tooth development fits with the biologic understanding of fluoride's protective actions against dental decay.[36,37]

Response to Public Comments

A draft version of this recommendation statement was posted for public comment on the USPSTF Web site from May 21 to June 20, 2013. All comments received were reviewed during the creation of the final recommendation statement. Based on public feedback, the USPSTF separated its recommendation on fluoride supplementation and the application of fluoride varnish into 2 parts to increase clarity surrounding the relevant populations for each intervention. The USPSTF expanded its rationale for why it recommends fluoride varnish for all infants and children once their primary teeth have erupted, rather than only those deemed to be at "high" risk, and why it believes that the available evidence was sufficient to make this recommendation for nondental primary care providers. The USPSTF added language concerning potential implementation issues for the use of fluoride varnish by primary care professionals. The USPSTF also clarified the definitions of "primary care provider," "dental practitioner," and "inadequate water fluoridation." Finally, the USPSTF included an explanation of the target age range for this recommendation and provided additional details on enamel fluorosis.

UPDATE OF PREVIOUS RECOMMENDATION

This is an update of the 2004 USPSTF recommendation statement, in which the USPSTF recommended that primary care clinicians prescribe oral fluoride supplementation to children 6 months and older whose primary water source is deficient in fluoride (B recommendation). This recommendation was based on fair evidence that prescription of oral fluoride supplements by primary care clinicians to young children with low fluoride exposure is associated with reduced risk for dental caries that outweighs the potential harms of enamel fluorosis, which primarily manifests in the United States as mild cosmetic discoloration of the teeth.

The current statement similarly recommends oral fluoride supplementation, but expands to include the recommendation that primary care providers apply fluoride varnish to the primary teeth of all children 5 years and younger starting at tooth eruption.

In 2004, the USPSTF concluded that the evidence was insufficient to recommend for or against routine risk assessment by primary care clinicians of children 5 years and younger for the prevention of dental disease (I statement). The current recommendation concludes that there is not enough evidence to recommend for or against routine oral screening examinations for dental caries performed by primary care clinicians in children 5 years and younger.

RECOMMENDATIONS OF OTHERS

The AAP has issued 2 policy statements related to dental care in children. The first, issued in 2003 and reaffirmed in 2009, encourages providers to incorporate oral health–related services into their practices. Specifically, the AAP recommends an oral health assessment for all children by age 6 months and a first dental visit by age 1 year.[38] The second statement supports oral fluoride supplementation and application of fluoride varnish in children "at risk" for dental caries.[39]

The ADA recommends that children be seen by a dentist within 6 months of eruption of the first tooth and no later than age 12 months. It also recommends the application of fluoride varnish every 6 months in preschool-aged children who are at moderate risk for dental caries and every 3 to 6 months in children who are at high risk.[40] It recommends daily dietary fluoride supplements for children from birth to age 16 years who are at high risk for developing dental caries and whose primary source of drinking water is deficient in fluoride; high-risk status can be determined by using risk assessment tools developed by 1 of several professional health organizations. Dietary fluoride supplementation is not recommended when water fluoridation levels are >0.6 ppm F.[11]

The Centers for Disease Control and Prevention recommends that clinicians counsel parents about appropriate use of fluoridated toothpastes, especially in children 2 years and younger; prescribe fluoride supplements to children at high risk for dental caries whose drinking water lacks adequate fluoridation; and limit the use of high-concentration fluoride products, such as varnish and gel, to high-risk individuals.[37]

The American Academy of Pediatric Dentistry states that fluoride dietary supplements should be considered for children at risk for caries who drink fluoride-deficient (<0.6 ppm) water. It also states that children at increased risk for caries should receive a professional fluoride treatment (eg, 5% sodium fluoride varnish or 1.23% acidulated phosphate fluoride) every 6 months.[41]

The American Academy of Family Physicians is updating its recommendations on the subject.

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APPENDIX

US PREVENTIVE SERVICES TASK FORCE

Members of the USPSTF at the time this recommendation was finalized* are Virginia A. Moyer, MD, MPH, Chair (American Board of Pediatrics, Chapel Hill, NC); Michael L. LeFevre, MD, MSPH, Co-Vice Chair (University of Missouri School of Medicine, Columbia, MO); Albert L. Siu, MD, MSPH, Co-Vice Chair (Mount Sinai School of Medicine, New York, and James J. Peters Veterans Affairs Medical Center, Bronx, NY); Linda Ciofu Baumann, PhD, RN (University of Wisconsin, Madison, WI); Susan J. Curry, PhD (University of Iowa College of Public Health, Iowa City, IA); Mark Ebell, MD, MS (University of Georgia, Athens, GA); Francisco A.R. García, MD, MPH (Pima County Department of Health, Tucson, AZ); Jessica Herzstein, MD, MPH (Air Products, Allentown, PA); Douglas K. Owens, MD, MS (Veterans Affairs Palo Alto Health Care System, Palo Alto, and Stanford University, Stanford, CA); William R. Phillips, MD, MPH (University of Washington, Seattle, WA); and Michael P. Pignone, MD, MPH (University of North Carolina, Chapel Hill, NC). Former USPSTF members Adelita Gonzales Cantu, RN, PhD, David C. Grossman, MD, MPH, and Glenn Flores, MD, also contributed to the development of this recommendation.

*For a list of current Task Force members, go to www.uspreventiveservicestaskforce.org/members.htm.