

# U.S. Preventive Services Task Force

## Screening and Interventions to Prevent Dental Caries in Children Younger Than 5 Years

### Screening and Interventions to Prevent Dental Caries in Children Younger Than 5 Years: Clinical Summary of the USPSTF Recommendation

#### What does the USPSTF recommend?

##### Children younger than 5 years: Grade B

Prescribe **oral fluoride supplementation** starting at age 6 months for children whose water supply is deficient in fluoride.

##### Children younger than 5 years: Grade B

Apply **fluoride varnish** to the primary teeth of all infants and children starting at the age of primary tooth eruption.

##### Children younger than 5 years: I statement

The 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 younger than 5 years.

#### To whom does the recommendation apply?

This recommendation applies to children younger than 5 years without signs or symptoms of dental caries.

#### What's new?

This recommendation is consistent with the 2014 USPSTF recommendation.

#### How to implement this recommendation?

- **Prescribe:** Prescribe oral fluoride supplementation beginning at age 6 months to children whose water supply is deficient in fluoride (< 0.6 parts fluoride per million parts water [ppm F]).
- **Apply:** Apply topical fluoride varnish to the primary teeth in all infants and children once primary teeth erupt. Typically, fluoride varnish is applied with a small brush and is available as 5% sodium fluoride (2.26% fluoride).

Clinicians may consider using "My Water's Fluoride" ([https://nccd.cdc.gov/doh\\_mwf/default/default.aspx](https://nccd.cdc.gov/doh_mwf/default/default.aspx)), a CDC tool that may assist in determining local water system fluoridation status.

*continues*

CDC = Centers for Disease Control and Prevention; USPSTF = U.S. Preventive Services Task Force.

**Note:** 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.

See related Putting Prevention Into Practice on page 299.

As published by the USPSTF.

This series is coordinated by Kenny Lin, MD, MPH, deputy editor.

A collection of USPSTF recommendation statements published in *AFP* is available at <https://www.aafp.org/afp/uspstf>.

The full recommendation statement is available at <https://www.uspreventiveservicestaskforce.org/uspstf/recommendation/prevention-of-dental-caries-in-children-younger-than-age-5-years-screening-and-interventions1>.

The USPSTF recommendations are independent of the U.S. government. They do not represent the views of the Agency for Healthcare Research and Quality, the U.S. Department of Health and Human Services, or the U.S. Public Health Service.

## Screening and Interventions to Prevent Dental Caries in Children Younger Than 5 Years: Clinical Summary of the USPSTF Recommendation *(continued)*

### What additional information should clinicians know about this recommendation?

**Assessment of Risk:** Higher prevalence and severity of dental caries are found among specific racial and ethnic (e.g., Black and Mexican American) populations. Social determinants of health associated with increased caries risk include lack of access to dental care, low socioeconomic status, personal and family oral health history, dietary habits (especially frequent intake of dietary sugars in foods and beverages), fluoride exposure, and oral hygiene practices.

The USPSTF determined there was insufficient evidence to assess the balance of benefits and harms of performing **routine screening** examinations. In deciding whether to routinely perform screening examinations, clinicians may consider the following:

- **Potential preventable burden:** Dental caries is the most common chronic disease in children in the United States and can cause pain and diminished quality of life. Of children living below the poverty threshold, 17% had untreated caries in 2011 to 2014. As soon as teeth erupt, all children are susceptible to dental caries.
- **Potential harms:** Primary care screening examinations for dental caries in children younger than 5 years are not invasive and unlikely to cause serious harms.
- **Current practice:** About half of pediatricians report examining the teeth of more than half of their patients between birth and age 3 years. Fewer report regularly applying fluoride varnish.

### Why is this recommendation and topic important?

Dental caries in early childhood is associated with pain, loss of teeth, impaired growth, decreased weight gain, negative effects on quality of life, poor school performance, and future dental caries. According to the 2011-2016 National Health and Nutrition Examination Survey, approximately 23% of children aged 2 to 5 years have dental caries in their primary teeth. Prevalence is higher in Mexican American children (33%) and non-Hispanic Black children (28%) than in non-Hispanic White children (18%).

### What are other relevant USPSTF recommendations?

Information on other oral health recommendations in adults and children older than 5 years from the USPSTF are available at <https://www.uspreventiveservicestaskforce.org/>.

### What are additional tools and resources?

- The Community Preventive Services Task Force recommends:
  - Fluoridation of community water sources to reduce dental caries (<https://www.thecommunityguide.org/findings/dental-caries-cavities-community-water-fluoridation>)
  - School-based dental sealant delivery programs to prevent caries (<https://www.thecommunityguide.org/findings/dental-caries-cavities-school-based-dental-sealant-delivery-programs>)
- The Health Resources and Services Administration's website contains various oral health program resources, including the "Bright Futures: Oral Health—Pocket Guide, 3rd edition," an overview of oral health prevention and interventions (<https://mchb.hrsa.gov/maternal-child-health-topics/child-health>)

### Where to read the full recommendation statement?

Visit the USPSTF website (<https://www.uspreventiveservicestaskforce.org/>) or the JAMA website (<https://jamanetwork.com/collections/44068/united-states-preventive-services-task-force>) to read the full recommendation statement. This includes more details on the rationale of the recommendation, including benefits and harms; supporting evidence; and recommendations of others.

CDC = Centers for Disease Control and Prevention; USPSTF = U.S. Preventive Services Task Force.

**Note:** 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.