

# **Tiny Teeth, Big Impact**

**Evidence-Based Fluoride  
Guidance for Pediatric  
Primary Care**



# Preventing Caries Through Evidence-Based Care



## 1. Distinguish

Systemic vs.  
Topical



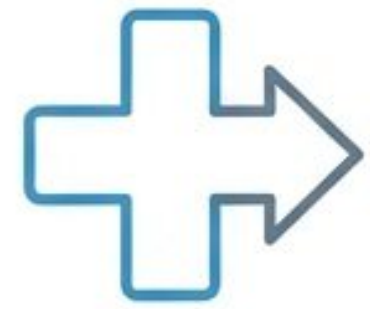
## 2. Apply

AAP & AAPD  
Guidelines



## 3. Counsel

Safety &  
Hesitancy



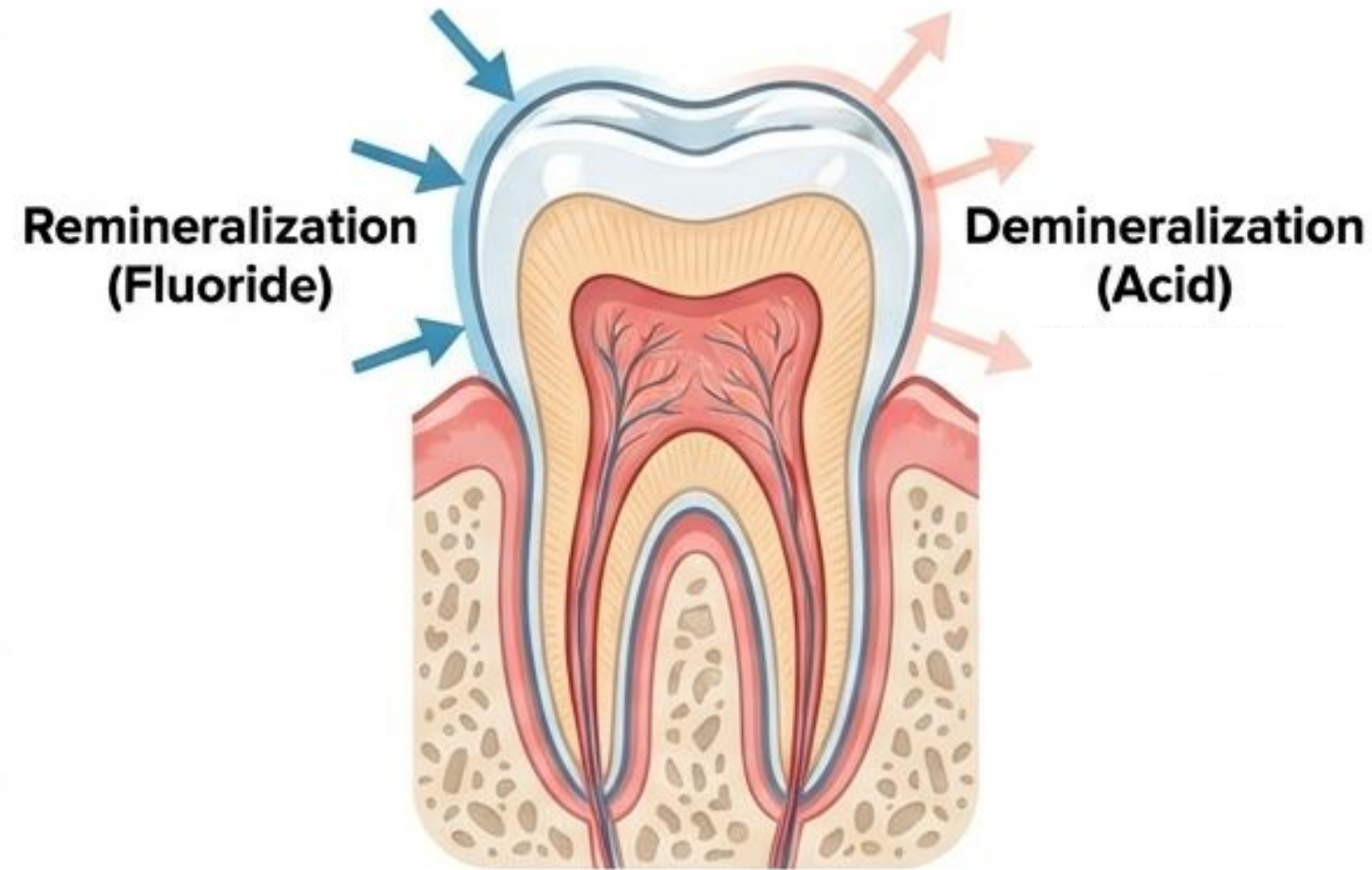
## 4. Refer

High Risk &  
Specialist Care

### Clinical Insight

Pediatricians are the trusted messengers and the first line of defense in oral health.

# More Than Just a Smile



Fluoride strengthens developing enamel and arrests early caries.



## Healthy Teeth

Strong foundation for overall well-being.

## Better Nutrition

Enables proper chewing and nutrient absorption.

## Improved Sleep

Reduces pain and discomfort for restful nights.

## School Readiness

Improves concentration and attendance.

# Mechanisms of Action: Systemic vs. Topical



## SYSTEMIC

Ingested during tooth development.  
Enhances enamel structure before eruption.



## TOPICAL

Applied to surface after eruption.  
Remineralizes enamel surfaces.

### Takeaway

Most of the benefit today comes from topical sources.  
Distinguishing these helps eliminate confusion for parents.

# Community Water Fluoridation



The Great Equalizer. Safe, effective, and promotes the best science for reducing cavities regardless of socioeconomic status.

Endorsed by: **AAP** **AAPD** **CDC** **ADA**

# Fluoride Supplements

## When to prescribe

- For children 6-months-16 years at high risk for caries whose primary drinking water is low in fluoride
- Must be prescribed by a dentist or physician
- USPSTF: Recommended supplementation from 6 months -5 years when water is fluoride deficient

TABLE 1. Fluoride Supplementation Schedule for Children Ages 0 to 16<sup>36</sup>

Age	Fluoride Level in Drinking Water (ppm)		
	< 0.3 ppm	0.3 ppm to 0.6 ppm	> 0.6 ppm
Birth to 6 months	0	0	0
6 months to 3 years	0.25 mg	0	0
3 years to 6 years	0.5 mg	0.25 mg	0
6 years to 16 years	1.00 mg	0.5 mg	0

## Dosing (Based on Water Fluoride Level)

## Important Considerations

- Always determine water fluoride level (test in unknown)
- Review all fluoride sources (home, school, bottled/filtered water, foods, beverages)
- Avoid overexposure- excess intake increases risk of dental fluorosis
- Long-term daily adherence is needed for benefit
- Do not prescribe supplements in communities with adequate fluoridated water

# Toothpaste Guidelines & Dosing



**Under 3 Years: Smear (Rice Grain)**



**3+ Years: Pea-Sized**

- Start at eruption of first tooth.
- Brush 2x daily.
- Parent supervision until age 9.

**Expectorate (spit), do not rinse.**

# Fluoride Varnish in Primary Care

## Why It Works

High concentration, minimal ingestion, safe for infants.

## Efficacy

Reduces caries by **37%** (primary) to **43%** (permanent).

## Schedule

**High Risk:** Every 3-6 months.

**Low Risk:** Every 6 months.



Recommended by USPSTF starting at tooth eruption.

# Silver Diamine Fluoride (SDF)

## Non-Invasive Caries Arrest

### Indications

- Arresting cavitated lesions.
- Pre-cooperative children / High anxiety.
- Avoids general sedation.
- Bridge to care when dental services are delayed.

**The Trade-Off:**  **Permanent black staining will occur *\*only\** on the decayed portion.**

Requirement: Informed consent with photos is mandatory before application.

# Visualizing SDF Outcomes

**Before**



**After**



**Function over aesthetics. SDF keeps decay in check until the child can tolerate restorative care or the tooth exfoliates.**

# Addressing Fluoride Hesitancy

1

## Start with Curiosity

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- “Can you share your concerns about fluoride?”
- Listen before responding

2

## Validate & Build Trust

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- Acknowledge safety concerns
- Normalize questions about prevention

3

## Share Clear, Evidence-Based Facts

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- Strengthens enamel & prevents cavities
- Small, safe amount in varnish
- Recommended by: American Academy of Pediatrics, American Dental Association, Centers for Disease Control and Prevention

4

## Personalize the Risk

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- Cavities are common & preventable
- Untreated decay can lead to pain & infection
- Prevention avoids costly treatment

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## Use Confident, Routine Language

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- “We’ll apply fluoride today to protect their teeth”
- Revisit respectfully if declined

# Conversation Scripts that Build Confidence

## **The Tailored Approach**

We tailor fluoride exposure based on your child's risk assessment to meet their specific needs.



## **The Safety Assurance**

With the correct dose, fluoride is as safe as a vitamin. It is our best tool to prevent pain and infection.



## **The Prevention Mindset**

Cavities are preventable, and fluoride helps us avoid extensive dental work later.



# Evidence-Based Tools for Families

**CDC: Fluoride  
Basics**



**AAP: Oral  
Health Resources**



**ADA:  
MouthHealthy.org**



**Campaign for  
Dental Health:  
ILikeMyTeeth.org**



Encourage parents to review these evidence-based sites at home.

# Final Clinical Pearls



**Safety:** Fluoride safely prevents and arrests caries.



**Distinction:** **Topical ≠ Systemic.** Know the difference.



**Priority:** Topical fluoride is the **primary prevention** tool today.



**Role:** **Primary Care Providers** are critical for early detection and varnish application.

# Contact Us



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