



Evidence-Based Clinical Practice Guideline on Nonrestorative Treatments for Carious Lesions: A Report from the American Dental Association

Summary of clinical recommendations for the nonrestorative treatment of caries on permanent teeth

GRADE Certainty in the Evidence

High	We are very confident that the true effect lies close to that of the estimate of the effect.
Moderate	We are moderately confident in the effect estimate. The true effect is likely to be close to the estimate of the effect.
Low	Our confidence in the effect estimate is limited.
Very Low	We have very little confidence in the effect estimate.

GRADE Interpretation of Strength of Recommendations

Implications	Strong Recommendations	Conditional Recommendations
For Patients	Most individuals in this situation would want the recommended course of action and only a small proportion would not.	The majority of individuals in this situation would want the suggested course of action, but many would not.
For Clinicians	Most individuals should receive the intervention.	Recognize that different choices will be appropriate for individual patients and that you must help each patient arrive at a management decision consistent with his or her values and preferences.
For Policy Makers	The recommendation can be adapted as policy in most situations.	Policy making will require substantial debate and involvement of various stakeholders.



Before SDF Application



After SDF Application

Expert Panel Recommendation	Certainty in the Evidence	Strength of Recommendation
To arrest advanced cavitated carious lesions on any coronal surface of permanent teeth , the expert panel suggests clinicians* prioritize the use of 38% silver diamine fluoride (SDF) solution (biannual application) over 5% sodium fluoride varnish (application once per week for 3 weeks). [†]	Low	Conditional
To arrest or reverse noncavitated carious lesions on occlusal surfaces of permanent teeth , the expert panel recommends clinicians* prioritize the use of sealants + 5% sodium fluoride varnish (application every 3-6 months) or sealants alone over 5% sodium fluoride varnish alone (application every 3-6 months), 1.23% acidulated phosphate fluoride gel (application every 3-6 months), or 0.2% sodium fluoride mouthrinse (once per week). [‡]	Moderate	Strong
To arrest or reverse noncavitated carious lesions on facial or lingual surfaces of permanent teeth , the expert panel suggests clinicians* use 1.23% acidulated phosphate fluoride gel (application every 3-6 months) or 5% sodium fluoride varnish (application every 3-6 months). [‡]	Moderate to Low	Conditional
To arrest or reverse noncavitated carious lesions on approximal surfaces of permanent teeth , the expert panel suggests clinicians* use 5% sodium fluoride varnish (application every 3-6 months), resin infiltration alone , resin infiltration + 5% sodium fluoride varnish (application every 3-6 months), or sealants alone . [‡]	Low to Very Low	Conditional
To arrest or reverse noncavitated and cavitated carious lesions on root surfaces of permanent teeth , the expert panel suggests clinicians* prioritize the use of 5,000 ppm fluoride (1.1% sodium fluoride) toothpaste or gel (at least once per day) over 5% sodium fluoride varnish (application every 3-6 months), 38% SDF + potassium iodide solution (annual application), 38% SDF solution (annual application), or 1% chlorhexidine + 1% thymol varnish (application every 3-6 months). ^{†,‡}	Low	Conditional
To arrest or reverse noncavitated carious lesions on coronal surfaces of permanent teeth , the expert panel suggests clinicians* <i>do not use</i> 10% casein phosphopeptide-amorphous calcium phosphate paste if other fluoride interventions, sealants, or resin infiltration is accessible.	Low	Conditional

SDF = silver diamine fluoride

ppm = parts per million

* "Clinicians" refers to the target audience for this guideline, but only those authorized/trained to perform the specified interventions should do so.

† In keeping with the concept of informed consent, all nonrestorative and restorative treatment options and their potential side effects (such as blackened tooth surfaces treated with silver diamine fluoride) should be offered and explained to all patients.

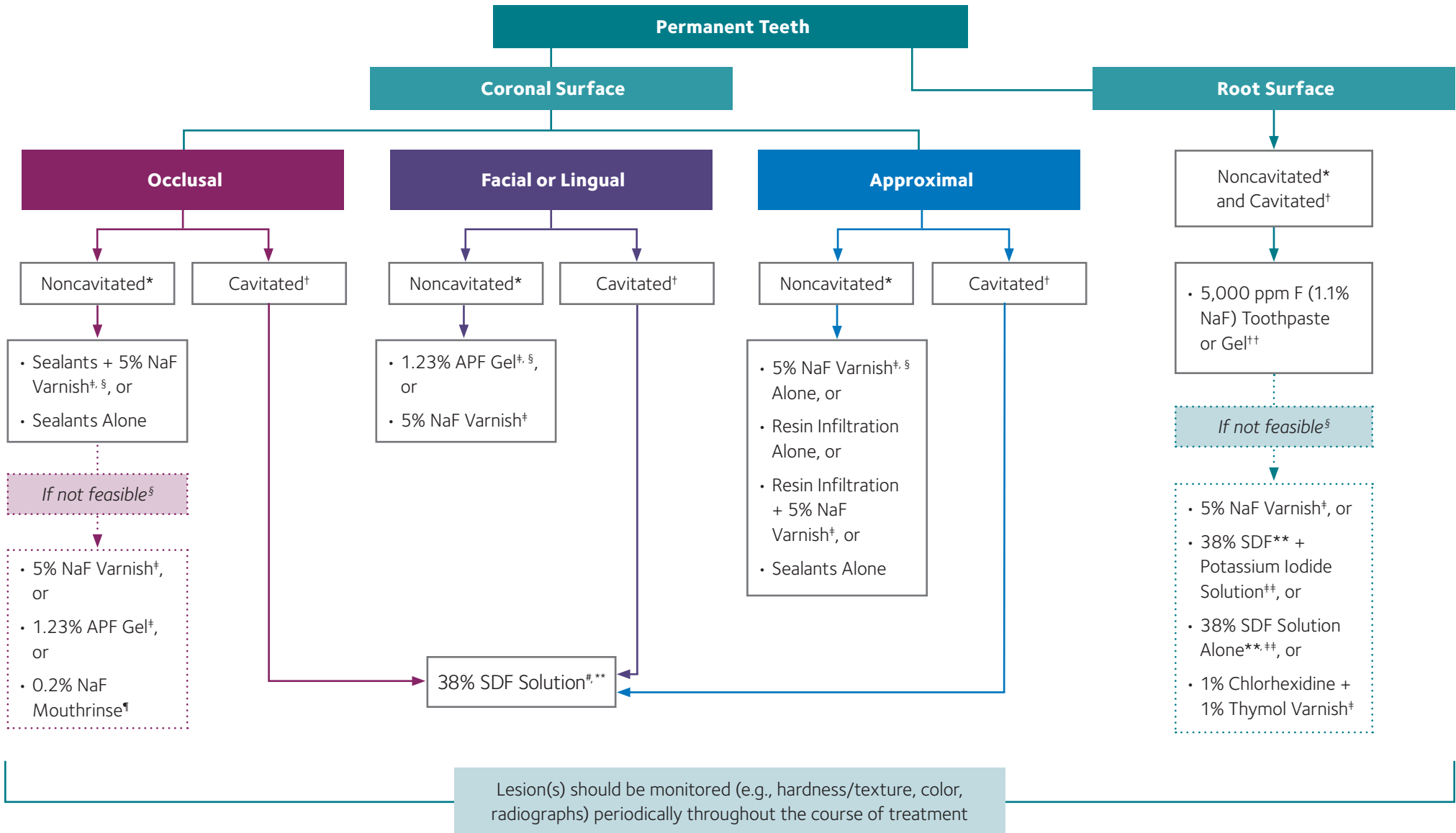
‡ The order of treatments included in this recommendation represents a ranking of priority defined by the panel when accounting for treatment effectiveness, feasibility, patients' values and preferences, and resource utilization. Considerations such as a particular patient's values and preferences, special needs, or insurance status should inform clinical decision making.

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Clinical Pathway for the Nonrestorative Treatment of Carious Lesions on **Permanent Teeth**



NaF = sodium fluoride
 APF = acidulated phosphate fluoride
 SDF = silver diamine fluoride
 ppm = parts per million
 F = fluoride

* Defined as International Caries Detection and Assessment System (ICDAS) 1 and 2 lesions.
 † Defined as ICDAS 5 and 6 lesions.
 ‡ Application every 3-6 months.
 § The order of treatments included in this recommendation represents a ranking of priority defined by the panel when accounting for treatment effectiveness, feasibility, patients' values and preferences, and resource utilization. Considerations such as a particular patient's values and preferences, special needs, or insurance status should inform clinical decision making.

¶ At-home use once per week.
 # Biannual application.
 ** In keeping with the concept of informed consent, all nonrestorative and restorative treatment options and their potential side effects (such as blackened tooth surfaces treated with SDF) should be offered and explained to all patients.
 †† At-home use at least once per day.
 ‡‡ Annual application.