


Background

The goal of caries risk assessment is to deliver preventive and restorative care optimized to a specific individual patient. Presently, however, few studies so far have determined how the application of caries risk assessment affects individual dental health outcomes. Dental caries care pathways are based on an understanding of risk factors as applied to a specific child. Children at high caries risk require intense prevention to prevent caries initiation and arrest caries progression. Care pathways also assume that there will be little benefit of advanced preventive therapies for those children who are at low risk for dental caries (see Table for care pathways).
**IAPD Recommendations**

1. Important caries risk factors are the presence of enamel defects, previous caries experience and the longitudinal evaluation of lesion progression (increased dimension/cavitation of white spot lesions or presence of new lesions) at recall visits.  
   Consensus-based recommendation > Global agreement 100%

2. Other useful caries risk factors in children are: whether the mother/caregiver has active caries, the socioeconomic status of the family, and whether the child consumes fermentable carbohydrates at high frequency (see Table for caries risk indicators).  
   Consensus-based recommendation > Global agreement 94%

3. Besides determining caries risk at initiation of therapy, and ongoing assessment of changes in risk factors over time allows for refinement of caries management.  
   Consensus-based recommendation > Global agreement 100%

4. The term “active surveillance” is used to denote instituting caries preventive measures and careful monitoring of caries arrestment or progression.  
   Consensus-based statement > Global agreement 94%

5. Along with other information, the likelihood of a patient returning for periodic recalls and compliance with preventive therapy, is important for considering active surveillance strategies.  
   Consensus-based statement > Global agreement 100%

### Dental Caries Care Pathways Based on a Child’s Caries Risk Assessment.

<table>
<thead>
<tr>
<th>Caries Risk Indicators</th>
<th>Diagnostic Procedures</th>
<th>Preventive Therapy</th>
<th>Restorative Therapy</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low Risk</td>
<td>Exam interval 12 months Radiograph interval</td>
<td>Brushing with F toothpaste twice daily Sealants</td>
<td>None</td>
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<tr>
<td>Moderate Risk</td>
<td>Exam interval 6 months Radiograph interval 6-12 months</td>
<td>Brushing with F toothpaste twice daily Professional topical fluorides tx every 6 months Sealants</td>
<td>Active surveillance of white spot and enamel proximal lesions enamel proximal lesions Restoration or SDF*** tx. of progressing lesions Restoration or SDF tx. of cavitated lesions</td>
</tr>
<tr>
<td>High Risk</td>
<td>Exam interval 3 months Radiograph interval 6 months Diet analysis</td>
<td>Brushing with F toothpaste twice daily Systemic fluoride supplements** Professional topical fluoride tx every 3 months Sealants Brushing with high potency F gel (over age 6) Dietary counseling</td>
<td>Active surveillance white spot lesions Restoration of enamel proximal lesions Restoration or SDF tx. of progressing lesions Restoration or SDF tx. of cavitated lesions</td>
</tr>
</tbody>
</table>

* SES = socioeconomic setting  ** Age and water supply considerations  *** SDF = silver diamine fluoride topical treatment