Epidemiology and Prevention of Childhood and Adolescent Caries

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Caries Risk Assessment

- Diagnostic and Clinical Evidence
  - Fluoride History
  - Dietary Habits
  - Sleptime Habits
  - Medications / Medical History
    - Non-Nutritive Sucking Habits
      - Oral Hygiene
        - Family History
          - Dental Hx.
          - Dental Attitude
# AAPD Caries-risk Assessment Tool (CAT)

<table>
<thead>
<tr>
<th>s-risk indicators</th>
<th>Low risk</th>
<th>Moderate risk</th>
<th>High risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical conditions</td>
<td>• No carious teeth in past 24 months</td>
<td>• Carious teeth in the past 24 months</td>
<td>• Carious teeth in the past 12 months</td>
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<tr>
<td></td>
<td>• No enamel demineralization (enamel caries “white-spot lesions”)</td>
<td>• 1 area of enamel demineralization (enamel caries “white-spot lesions”)</td>
<td>• More than 1 area of enamel demineralization (enamel caries “white-spot lesions”)</td>
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<tr>
<td></td>
<td>• No visible plaque; no gingivitis</td>
<td>• Gingivitis*</td>
<td>• Visible plaque on anterior (front) teeth</td>
</tr>
<tr>
<td>Environmental characteristics</td>
<td>• Optimal systemic and topical fluoride exposure§</td>
<td>• Suboptimal systemic fluoride exposure with optimal topical exposure§</td>
<td>• Suboptimal topical fluoride exposure§</td>
</tr>
<tr>
<td></td>
<td>• Consumption of simple sugars or foods strongly associated with caries initiation primarily at mealtimes</td>
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<tr>
<td></td>
<td>• High caregiver socioeconomic status¶</td>
<td>• Midlevel caregiver socioeconomic status (ie, eligible for school lunch program or SCHIP)</td>
<td>• Low-level caregiver socioeconomic status (ie, eligible for Medicaid)</td>
</tr>
<tr>
<td></td>
<td>• Regular use of dental care in an established dental home</td>
<td>• Irregular use of dental services</td>
<td>• No usual source of dental care</td>
</tr>
<tr>
<td>General health conditions</td>
<td>• Active caries present in the mouth</td>
<td>• Children with special health care needs#</td>
<td>• Conditions impairing saliva composition/flow**</td>
</tr>
</tbody>
</table>
Low Risk Group Plan

Annual office topical fluoride application
Brush 2-3 times/day with fluoride-containing dentifrice
Radiographs once every 2 years
Moderate Risk Group Plan

Semiannual office topical fluoride application

Brush 2-3 times/day with fluoride-containing dentifrice

Daily rinse with 0.05% NaF solution

1 mg F tablet daily

Radiographs once every year
High Risk Group Plan

Office topical fluoride application 4 times/year

Brush 2-3 times/day with fluoride-containing dentifrice

Daily application of 1.1% NaF gel in custom trays or brush on for 4 weeks then daily rinse with 0.05% NaF

1 mg F tablet daily

Radiographs every 6 months (ins?)
Preventive measures
• Fluoride Varnish
• Local disinfection (Chlorhexidine)
• Xylitol usage by mother 3-5X/day

Patient Education
• Regular dental care (mom and child)
• Care giving (oral hygiene and diet)
• Appropriate use of bottle and nursing

Diet modifications
• Liquid sugars
• Sharing with adult
• Frequency, duration