Oral Health Risk Assessment

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Oral Health Initiative
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Bright Futures Recommendations

☐ Oral Health Risk Assessment recommended at 6 & 9 months or until a dental home is established

☐ Refer to dental home at 12 months
Screening Goals

- Identify abnormalities and refer children with suspicious findings (false positives are OK)

- No different from other screenings done as part of well-child care
Oral Health and Caries
Prevalence

Dental caries is:

☐ 5 times more common than asthma
☐ 7 times more common than hay fever
Oral Disease is Consequential

- Missed work/school – 51 million school hours lost per year
- Low income children missed 12 times more days than children from more affluent families
- Distraction from normal activities including learning
- Speech and eating dysfunction
- Growth delay
- Loss of wages and potential loss of job
Children and Tooth Decay

- 28% of US children age 2-5 have dental caries, increased from 24% in prior survey*

- Possible factors
  - Parents too busy to supervise brushing
  - Changes in diet (more sugar)
  - Use of bottled water without added fluoride

Early Childhood Caries Can Lead to...

- Extreme pain
- Spread of infection
- Difficulty chewing, poor weight gain
- Extensive and costly dental treatment
- High risk of dental decay in adult teeth
- Crooked bite (malocclusion)
Dental Caries is Multifactorial

- Carbohydrate
- Bacteria
- Caries
- Time
- Tooth
Factors Necessary for Caries

TOOTH
- Age
- Fluorides
- Morphology
- Nutrition
- Trace Elements
- Carbonate Level

SUBSTRATE
- Oral Clearance
- Oral Hygiene
- Salivary Stimulants
- Frequency of Eating
- Carbohydrate (type, concentration)

FLORA
- Strep, Mutans (Substrate)
- Oral Hygiene
- Flouride in Plaque

FLOW RATE pH
BUFFERING CAPACITY
PH COMPOSITION
SALIVA
SALIVA
SALIVA
Not Just What You Eat, But How Often

- Acids produced by bacteria after carbohydrate intake persist for 20-40 minutes lowering pH

- **Frequency** of sugar ingestion is more important than quantity
Breastmilk as a Substrate

- Unclear evidence whether breastmilk is cariogenic
- Cautions on frequent night-time and on-demand breastfeeding after tooth eruption

- Potential for early childhood caries (ECC) with extended and repetitive feeding times without appropriate oral hygiene

Influence of Fluoride on Teeth

- Inhibits the growth of cariogenic organisms thus decreasing acid metabolism
- Reduces enamel solubility
- Promotes remineralization of enamel, and may arrest or reverse early caries
- Concentrated in saliva
- Effect is both topical and systemic
AAP Policy Recommendations for Oral Health Risk Assessment by Pediatricians

- Assess mother/caregivers oral health
- Assess oral health risk of infants and children
- Recognize signs and symptoms of caries
- Assess child’s exposure to fluoride
- Provide anticipatory guidance and oral hygiene instructions (brush/ floss)
- Make timely referral to a dental home by 12 months
Brightening Oral Health Project

Oral Health Risk Assessment Tool

This is a: 9 month visit ☐
12 month visit ☐

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Caries Risk: ☐ Low ☐ High
Completed: ☐ Anticipatory Guidance ☐ Fluoride Varnish ☐ Referral to
Goals:

*New recommendation.
Brightening Smiles Testing
Oral Health History – Risk Factors

- Maternal or caregiver without dental home
- Caregiver decay in past 12 months
- Continuous bottle feedings
- Frequent night feedings
- Bottles containing anything other than water
- Sippy cup containing anything but water
- Frequent snacks
- Diet high in sugars
- Special health care needs
- Medicaid eligible
Brightening Oral Health Testing
Oral Health History – Protective Factors

- Existing dental home
- Child lives in F community or takes F supplements
- Child drinks F water
- Child uses F toothpaste
- Child had F varnish treatment past 6 months
Fluoride Exposure

☐ Assess local water fluoride content
☐ If well water, test for fluoride content
☐ Recommend appropriate amount of fluoride containing toothpaste over age 2
☐ Give age specific prescription for supplements if needed
☐ Varnish treatment for high risk patients – cost is $1.13 per pt
American Dental Association Fluoride Varnish Recommendations – Under Age 6

- **Low risk patients** may not benefit from varnish applications, especially if they have adequate fluoridated water and toothpaste.

- **Moderate risk patients** should receive varnish applications every 6 months (1a).

- **High risk patients** should receive fluoride varnish applications every 3-6 months (1a).
Physical Exam
Assessment of Child

• Position child in caregiver’s lap facing caregiver

• Sit with knees touching knees of caregiver

• Lower the child’s head onto your lap
What to Look For

- Assess for:
  - Presence of plaque
  - Presence of white spots or dental decay
  - Presence of tooth defects (enamel)
  - Presence of dental crowding
  - Gingivitis (swollen gums)
What is Early Childhood Caries (ECC)?

- A severe, rapidly progressing form of tooth decay in infants and young children
- Affects teeth that erupt first, and are least protected by saliva
Check for Normal Healthy Teeth
Check for Early Signs of Decay: White Spots
Check for Later Signs of Decay: Brown Spots
Check for Advanced /Severe Decay
Patient Education

- Discuss caries etiology and prevention (a balance between risk factors and protective factors)
  - Caries is a transmittable infectious disease and is thus theoretically preventable
  - Discuss behavior modifications with caregivers of children identified as high-risk
  - Prevent bacterial transfer to the child by not:
    - Wetting pacifier with saliva
    - Prechewing the child’s food
    - Tasting the child’s food
    - Sharing Bottle (older siblings)
Dietary Advice

- No bottles at bed time or nap time not containing water
- Do not dip pacifier in sugary substances
- Avoid sticky foods like raisins, fruit leather roll ups, hard candy
Dental Referral

☐ Discuss need for dental visit at 1 year of age

☐ Develop list of dentists willing to see young children

☐ Supply phone numbers and addresses

☐ Include Medicaid and SCHIP referral information for patients having difficulties with access

☐ Assess establishment of dental home at each visit
Referral to a Dental Home

- Goal is dental home access for every child by 1 year of age

- Availability of pediatric or general dentists who see infants and toddlers varies from community to community

- Scope of oral health screening and preventive counseling in the primary care setting is most important in areas without adequate dental home access

- Adequate dental insurance often determines access
Additional Ideas: How to get this Done in Practice

- Pre-visit questionnaire
  - Assess for dental home
  - Oral health risk assessment questions

- Nurse, medical assistant, or other office staff ask the questions

- Prompts on a documentation form or electronic health record
Additional Ideas:
How to get this Done in Practice

☐ Practice staff person who is “in charge of oral health”

☐ Keep track of dental home referrals with a registry

☐ Measure progress and report back to the whole practice or clinic

☐ Use as a quality improvement activity for your recertification or residents practice based learning ACGME requirement

☐ Co-located oral health educator
Oral Health risk assessment

Six and nine months

12 months refer to dental home
ORAL HEALTH CASE STUDY
Gabriella—12 month old

Medical History
- Overall health, growth, and development have been normal.
- Gabriella is saying a few words and walks a few steps without support.
- She has had several colds, some with fever, but none requiring an office visit.

Nutrition History
- Eating well, occasionally takes a bottle to bed, and sips on it frequently during the day. Her mother adds juice to the bottle regularly.

Patient/Parent Report
- Gabriella’s mother had a strong history of dental caries as a child and now has many fillings and some periodontal disease.
- Gabriella spends at least 2 days a week at her grandmother’s house, which has fluoridated city water as the primary source of drinking water.
- Recently, the family moved to a new house in a rural section of the county and has a well as the primary water source.
- Gabriella does not currently have a dental home, but her mother “sort of” sees a dentist when she has the time and money.
- Gabriella is covered by Medicaid
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| Goals: | Referral to dental home - mom and child |

*New recommendation.*
Pre & Post Test Data

Brightening Oral Health

Oral Health Initiative
A program of the American Academy of Pediatrics

Bright Futures
prevention and health promotion for infants, children, adolescents, and their families
**Brightening Oral Health Tool**

**Brightening Oral Health Project**

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**QuIN**

Quality Improvement Initiative Network

**Oral Health Initiative**

A program of the American Academy of Pediatrics

children, adolescents, and their families™
Brightening Oral Health Conclusions

- Practice teams employing a system to document oral health risk assessments increased from 11% to 75%

- Practice teams utilizing a system to identify high risk patients for an oral health referral increased from 11% to 87.5%