

## Oral Health Care During Pregnancy

### PIOHQI -- Perinatal and Infant Oral Health Quality Improvement Initiative

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## Why OBGYN and Oral Health?

- **Pregnant women most often do not receive oral health care.** In Maryland, of the 30,743 pregnant women covered by Medicaid/year; only 27% accessed covered oral health services while pregnant.
- There are associations between preterm births and periodontal disease. Since **the risk of dental care is minimal and the benefits may be large** dental care should be part of basic OB counseling.
- Dental care during pregnancy also will **dental cavities, reducing the risk of dental cavities to the newborn.**
- There is a need to inform pregnant women **that dental care is safe during pregnancy and why oral health is important for her and her future baby.**

## Where Are We Going ?

- **Access to oral health care**
- What we need to know about oral health and pregnancy?
- The controversy: Periodontal health and poor birth outcomes
- National movement; National guidelines
- Barriers and facilitators
- Oral health care during pregnancy

## Number and % Pregnant women (14+years) enrolled in Maryland Medicaid with Dental Visits

Year	Total # Enrolled	Receiving 1 or More Services	% Receiving Services
1999	17,914	2,474	13.8
2002	21,112	3,063	14.5
2008	20,005	4,354	21.8
2012	27,092	8,330	30.7
2014	30,743	8,228	26.8

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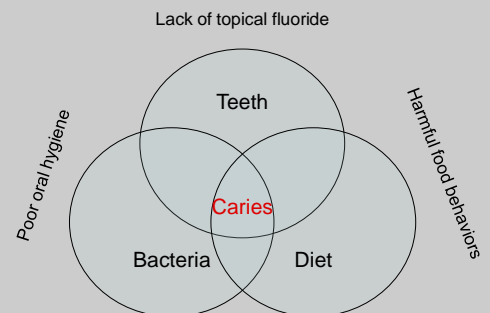
## Need to Know: Pregnancy and Changes in Oral Health

- **For the Pregnant Patient**
  - Pregnancy Gingivitis
  - Progression of Periodontitis
  - Dental Caries
  - Dental Erosion
- **For the Child**
  - Enamel Defects
  - Increased Caries Risk

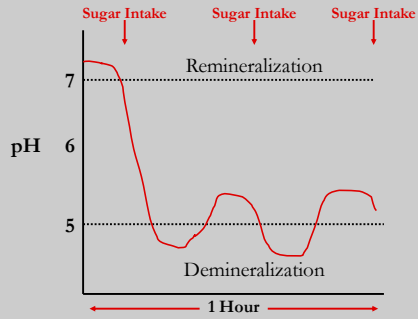
## Need to Know: Periodontal Disease in Pregnancy



## Need to Know: The Dental Caries Process



**Need to Know: Salivary pH Drop Over 1 Hour with Frequent Sugar Intake**



**Need to Know: Dental Caries in Pregnancy**



**Mothers as a Source of Child's Mutans Streptococci**

Paper	Country	Mother-Child Pairs	Children with at Least One MS Genotype Identical to Mother
Ersin et al. 2004	Turkey	8	100%
Lindquist et al. 2004	Sweden	10	70%
Klein et al. 2004	Brazil	16	81%
Li et al. 2004	United States	37	89%
Hames-Kocabas et al. 2006	Turkey	25	24%

**Controversy: Mother's Cavities Affects the Child's Risk for Cavities**



## AAP Risk Assessment Tool

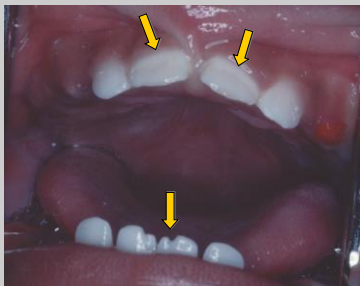
Patient Name: \_\_\_\_\_ Date of Birth: \_\_\_\_\_ Date: \_\_\_\_\_  
 Visit:  6 month,  9 month,  12 month,  15 month,  18 month,  24 month,  30 month,  3 years.  
 4 years  5 years  6 years  Other: \_\_\_\_\_

RISK FACTORS	CLINICAL FINDINGS	PROTECTIVE FACTORS												
<ul style="list-style-type: none"> <li>▲ Mother or primary caregiver had active decay in the past 12 months. Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>● Mother or primary caregiver does not have a dentist. Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>● Continual bottle/sippy cup use with fluid other than water. Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>● Frequent snacking. Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>● Special health care needs. Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>● Medicaid eligible. Yes <input type="checkbox"/> No <input type="checkbox"/></li> </ul>	<ul style="list-style-type: none"> <li>▲ White spots or visible decalcifications in the past 12 months. Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>▲ Obvious decay. Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>▲ Restorations (fillings) present. Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>● Visible plaque accumulation. Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>● Gingivitis (swollen/bleeding gums). Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>● Teeth present. Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>● Healthy teeth. Yes <input type="checkbox"/> No <input type="checkbox"/></li> </ul>	<ul style="list-style-type: none"> <li>● Existing dental home. Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>● Drinks fluoridated water or takes fluoride supplements. Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>● Fluoride varnish in the last 6 months. Yes <input type="checkbox"/> No <input type="checkbox"/></li> <li>● Has teeth brushed twice daily. Yes <input type="checkbox"/> No <input type="checkbox"/></li> </ul>												
<p><b>Self Management Goals:</b></p> <table border="0"> <tr> <td><input type="checkbox"/> Regular dental visits</td> <td><input type="checkbox"/> No sodas</td> <td><input type="checkbox"/> Xylitol</td> </tr> <tr> <td><input type="checkbox"/> Dental treatment for parents</td> <td><input type="checkbox"/> Less/No juice</td> <td><input type="checkbox"/> Drink tap water</td> </tr> <tr> <td><input type="checkbox"/> Healthy snacks</td> <td><input type="checkbox"/> Wean off bottle</td> <td><input type="checkbox"/> Less/No junk food or candy</td> </tr> <tr> <td><input type="checkbox"/> Brush with fluoride toothpaste 2X/day</td> <td><input type="checkbox"/> Only water in sippy cup</td> <td></td> </tr> </table>			<input type="checkbox"/> Regular dental visits	<input type="checkbox"/> No sodas	<input type="checkbox"/> Xylitol	<input type="checkbox"/> Dental treatment for parents	<input type="checkbox"/> Less/No juice	<input type="checkbox"/> Drink tap water	<input type="checkbox"/> Healthy snacks	<input type="checkbox"/> Wean off bottle	<input type="checkbox"/> Less/No junk food or candy	<input type="checkbox"/> Brush with fluoride toothpaste 2X/day	<input type="checkbox"/> Only water in sippy cup	
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<p><b>ASSESSMENT/PLAN</b></p> <p><b>Caries Risk:</b> <input type="checkbox"/> Low <input type="checkbox"/> High</p> <p><b>Completed:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> Anticipatory Guidance</li> <li><input type="checkbox"/> Fluoride Varnish</li> <li><input type="checkbox"/> Dental Referral</li> </ul>														

## Enamel Defects in Primary Teeth that Develop Prenatally



## Developmental Enamel Defects



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## National Movement; National Guidelines

### National Consensus Statement, 2011

- Guidance for Prenatal Care Health Professionals
- Guidance for Oral Health Professionals
- Tips for Good Oral Health During pregnancy

### ACOG, Committee Opinion, 2015

- Association between periodontal disease and preterm birth; no benefits of periodontal therapy regarding preterm births
- Pregnancy is a "teachable moment"
- Cariogenic bacteria from mothers can be transmitted to children
- Improve the training of health care providers
- Counsel mothers regarding oral hygiene and diet
- Referral to dentists for safe, comprehensive dental care
- Awareness of access to care issues

### AAPD Guidelines on Perinatal Oral Health Care, 2016

- Oral health education to medical professionals
- Identify mothers with poor oral health
- Establish a dental home and provide necessary care to mothers
- Counseling regarding diet and oral hygiene

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## Barriers

- Oral health procedure reimbursement for physicians – need advocacy like was done for Pediatricians.
- Not my job mentality – need champions.
- Lack of interdisciplinary knowledge – that is why you are here.
- Not traditional part of OBGYN practice – flags in EMR.
- Lack of Medicaid dental coverage for low-income adults during preconception and postpartum periods – improved access to dental care for all adults.
- Education is necessary, but not sufficient, to change patients' health behavior – providers need to understand motivational theory.
- Patient often does not follow up with dental referral.

## Facilitators

- Overlapping disciplines foster best practices
- Large emphasis on interprofessional care
- Guidelines from national organizations ACOG, AAPD
- Medicaid dental coverage during pregnancy and children
- Oral health referral– written to reliable, knowledgeable dental practice

## Referral between Physician and Oral Health Provider

Prenatal  
Care  
Provider:

**Rx**

Phone: \_\_\_\_\_

Patient Name: \_\_\_\_\_

DOB: \_\_\_\_\_ Estimated Delivery Date: \_\_\_\_\_

**This patient may have routine dental evaluation and care, including but not limited to:**

- Oral health examination
- Dental prophylaxis
- Root canal treatment
- Extraction
- Dental x-ray with abdominal and neck lead shield
- Local anesthetic with epinephrine
- Restoration (amalgam or composite) fillings

Known Allergies: \_\_\_\_\_

Precautions:  None  Specify (if any): \_\_\_\_\_

Patient may have: (Check all that apply)

- Acetaminophen with codeine for pain control
- Alternative pain control medication: (Specify) \_\_\_\_\_

Penicillin  Amoxicillin

Clindamycin  Cephalosporins

Erythromycin (Not estolate form)

**DO NOT HESITATE TO CALL FOR QUESTIONS**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

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## Oral Health Care Imperative: Ethical Issues

- Oral health providers must keep knowledge and skills current -- there is no increased risk to mother of child
- Oral health providers can not refuse to accept patient or deny services
- Oral health providers have to be truthful about reason for denial
- If oral health providers does not treat, he/she must refer

### Oral Health Care Procedures – Uncomplicated Pregnancy

- Dental radiographs with lead apron and thyroid collar
- Fluoride treatment
- Dental prophylaxis, including non-surgical periodontal care to treat gingivitis and periodontitis
- Local anesthesia
- Restorations
- Emergency care

### Oral Health Care Procedures – Complicated Pregnancy

- Consultation with OB provider.

### Comfort When Receiving Oral Health Care

- **First Trimester**
- Scheduling visits in the afternoon can avoid the nausea of morning sickness that many women experience.
- **Second Trimester.**
- The fetus is not large, making it easier for mothers to recline in the dental chair for prolonged periods.
- **Third Trimester**
- Late in term, position woman slightly on left side with a towel prop to avoid vena cava syndrome.
- Encourage her to stand and walk periodically if it is a long appointment.
- Elevating her head helps avoid shortness of breath induced by abdominal contents pushing up on already compressed lungs.

Smiles for Life Curriculum

### Anesthetic Safety During Pregnancy

Anesthetics	Consult with a prenatal care health professional prior to using intravenous sedation or general anesthesia.
Local anesthetics with epinephrine (e.g., Bupivacaine, Lidocaine, Mepivacaine)	May be used during pregnancy.
Nitrous Oxide (30%)	May be used during pregnancy when topical or local anesthetics are inadequate. Pregnant women require lower levels of nitrous oxide to achieve sedation; consult with prenatal care health professional.

Source: Oral Health Care During Pregnancy: A National Consensus Statement, Oct. 2011



## Analgesic Safety During Pregnancy

Analgesics	
Acetaminophen	May be used during pregnancy.
Acetaminophen with Codeine, Hydrocodone, or Oxycodone	
Codeine	
Merperidine	
Morphine	
Aspirin	May be used in short duration during pregnancy; 48 to 72 hours.
Ibuprofen	Avoid in 1st and 3rd trimesters.
Naproxen	

Source: Oral Health Care During Pregnancy: A National Consensus Statement, Oct. 2011

## Antibiotic Safety During Pregnancy

Antibiotics	
Amoxicillin	May be used during pregnancy.
Cephalosporins	
Clindamycin	
Metronidazole	
Penicillin	
Ciprofloxacin	Avoid during pregnancy.
Clarithromycin	
Levofloxacin	
Moxifloxacin	
Tetracycline	
	Never use during pregnancy.

Source: Oral Health Care During Pregnancy: A National Consensus Statement, Oct. 2011

## Antimicrobial Safety During Pregnancy

Over-the-Counter Antimicrobials	Use alcohol-free products during pregnancy.
Cetylpyridinium chloride mouth rinse	May be used during pregnancy.
Chlorhexidine mouth rinse	
Xylitol	

Oral Health Care During Pregnancy: National Consensus Statement, Oct. 2011

## Defer Dental Procedures

- Complicated prosthodontic procedures
- Cosmetic procedures
- Orthodontics
- Elective oral surgery procedures
- IV sedation, general anesthesia (if necessary, consult with OB)

## Assessment of North Carolina Dentist JADA 141:986-994, 2010

VARIABLE	STRONGLY AGREE/AGREE (%)
<b>Knowledge</b>	
Women should receive routine preventive dental care during pregnancy	99.4 <sup>1</sup>
The ideal time to provide routine preventive dental care for a pregnant patient is the second trimester	73.7 <sup>1</sup>
Elective restorative treatment should be delayed until after pregnancy	66.3 <sup>1</sup>
Pregnant women should receive only emergency dental care	9.9
It is unsafe to obtain dental radiographs in pregnant patients	18.4
The presence of active periodontitis during pregnancy may increase the risk of developing pre-eclampsia	60.2 <sup>1</sup>
The presence of active periodontitis may increase the risk of experiencing low birth weight	77.0 <sup>1</sup>

## Assessment of North Carolina Dentist JADA 141:986-994, 2010

Barriers, Strongly Agree

Lack of time for counseling	49.5
Limited or lack of reimbursement for counseling services	51.4
Differences in culture, language or both	48.0
Legal risks associated with negative birth outcomes	25.0
My lack of knowledge	21.4
Lack of demand for these services	46.2

## Final Thoughts

- Improve access to care for pregnant women
- Understand the many benefits (and risks) of dental care during pregnancy.
- Reduce oral health providers concerns about treating pregnant women during pregnancy.

## Questions?/ How Can We Learn Together?

