

# State of Connecticut Department of Public Health



Keeping Connecticut Healthy

(860) 509-8000 • [www.dph.state.ct.us](http://www.dph.state.ct.us)  
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# LEARNING OBJECTIVES

By the end of this presentation you will:

- Recognize the oral disease called “**dental decay**” and its impact on general health and well-being
- Recognize how teeth develop **decay**
- List ways to help **prevent** dental decay
- Describe how to **screen** for decay and other dental diseases and conditions
- Describe how to **refer** to the dentist



**DENTAL DECAY  
IMPACT ON HEALTH  
AND WELL-BEING**

# HEALTHY PRIMARY (BABY) TEETH ARE IMPORTANT

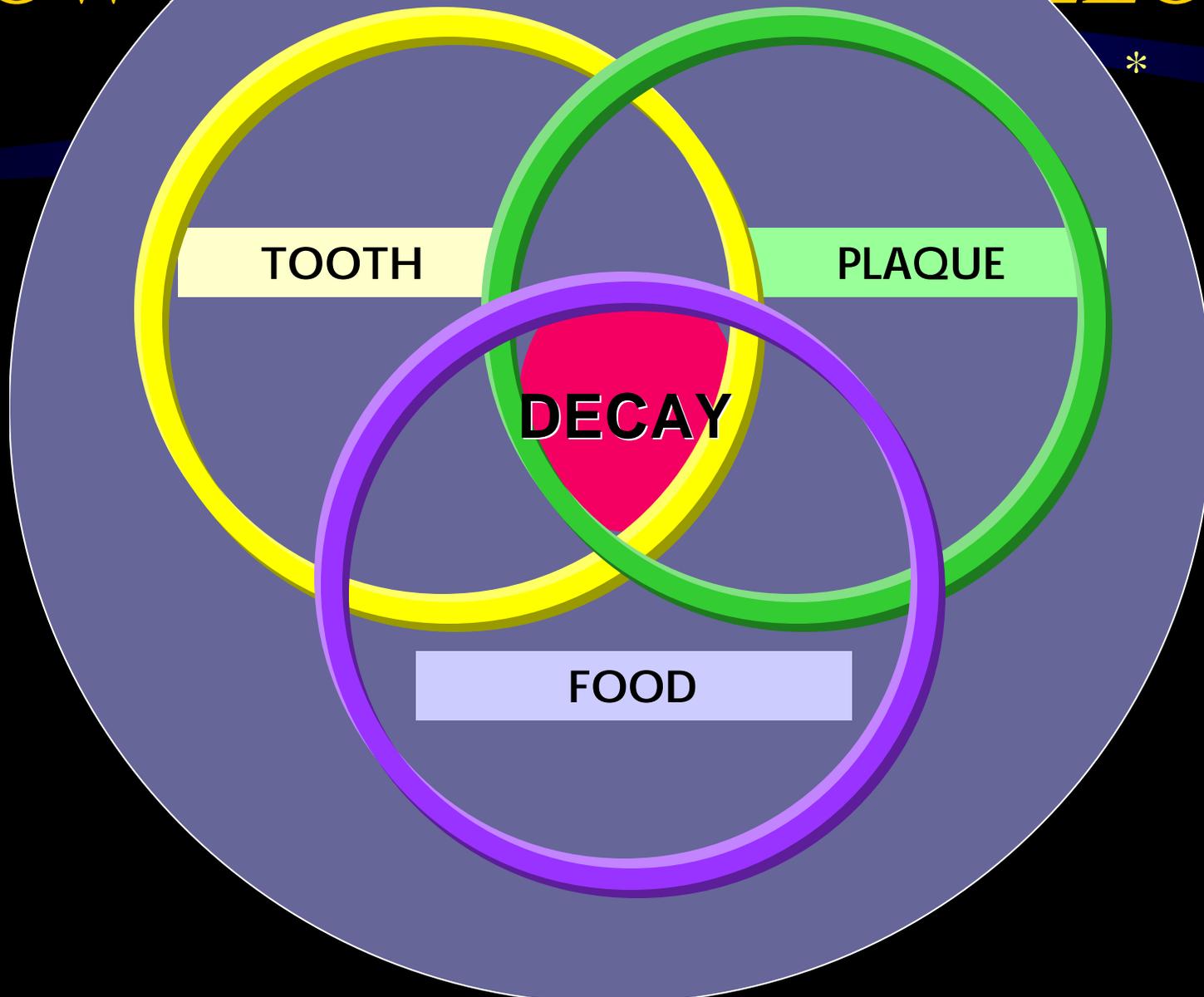
- Chewing & nutrition
- Development of the permanent (adult) teeth
- Facial structure
- Speech development.



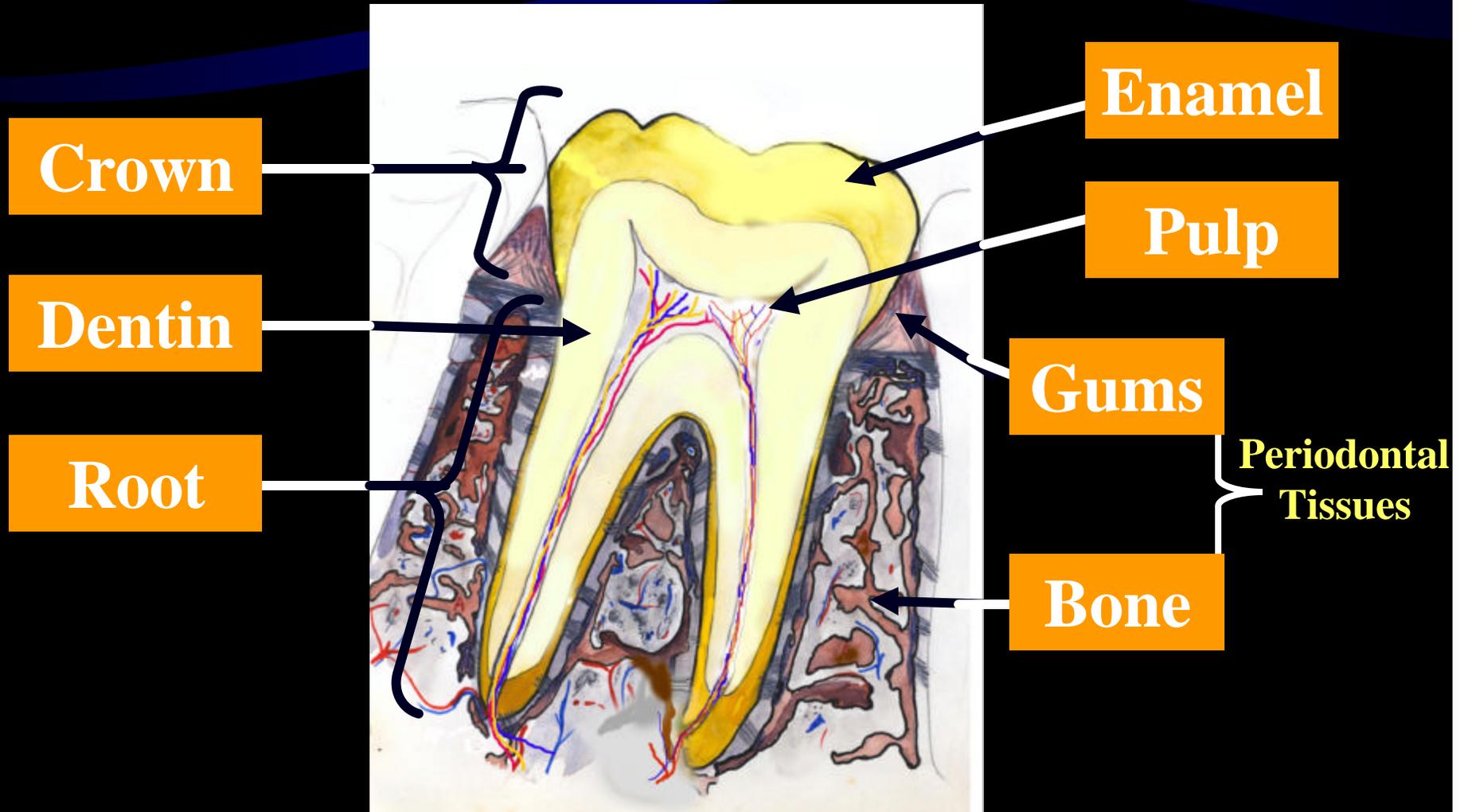


# HOW TEETH DEVELOP DECAY

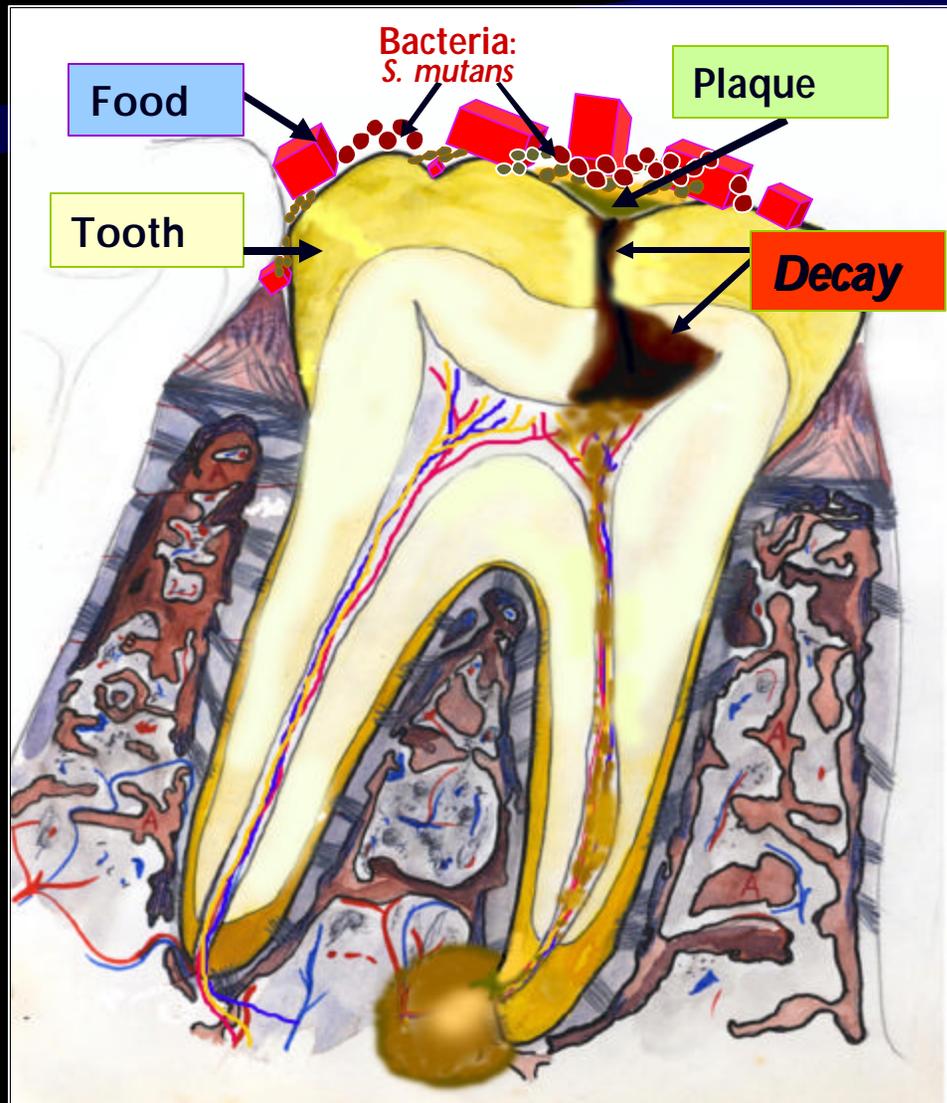
# HOW DOES DENTAL DECAY DEVELOP?



# PARTS OF THE TOOTH



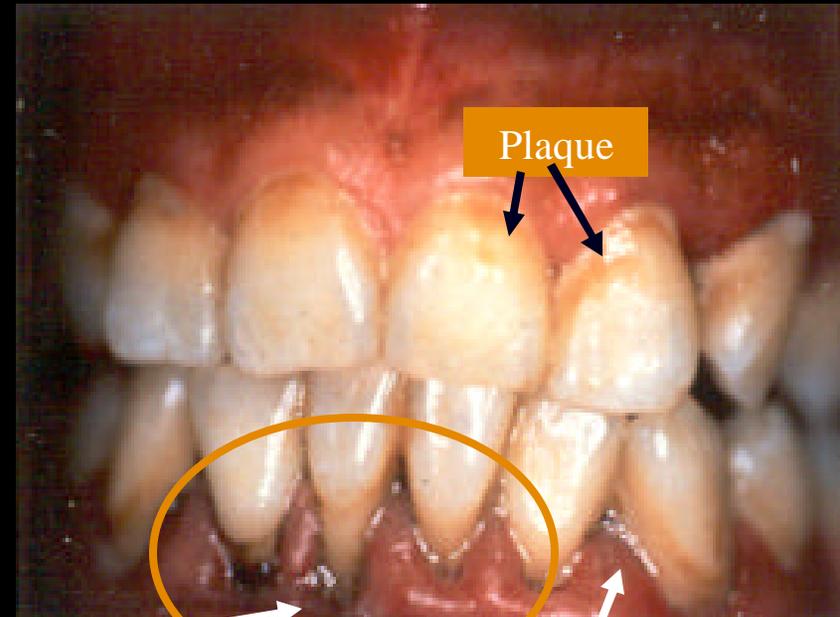
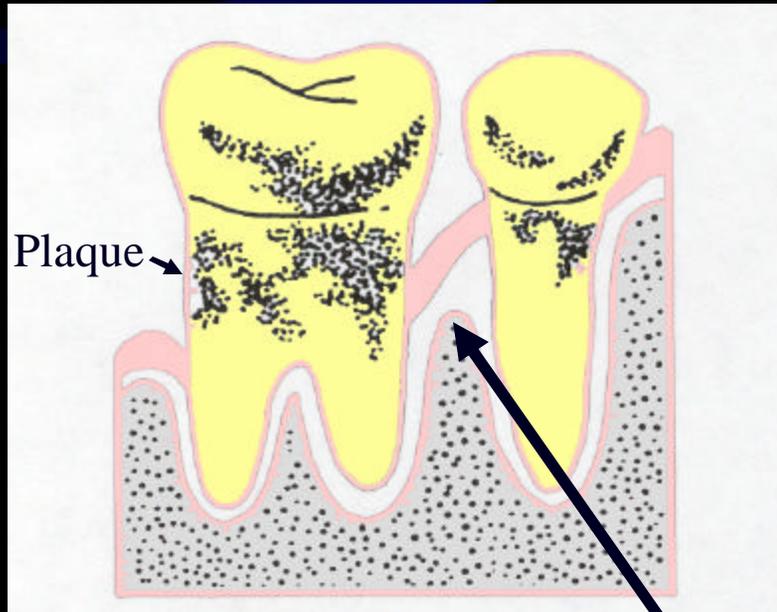
# PLAQUE + FOOD + TOOTH = DECAY





# PERIODONTAL DISEASE

# PERIODONTAL DISEASE



## Periodontitis

- Advanced gum inflammation
- Bone loss
- Destruction of ligaments

## Gingivitis

- Inflamed Gums

# PERIODONTAL DISEASE

## Advanced periodontal disease

- *Porphyromonas gingivalis*
- *Bacteroides forsythus*
- *Treponema denticola*
- *Actinobacillus actinomycetemcomitans*



# PERIODONTAL DISEASE

## Adverse birth outcomes studies

- Dasanayake, *et al*, 1996
- Offenbacher, *et al*, 1998
- Jeffcoat, *et al*, 2001

# PERIODONTAL DISEASE

## Adverse birth outcomes measures

- Periodontal status
  - Pocket depth
  - Gingival crevicular fluids
  - Salivary estriol
- Bacterial vaginosis
  - Cytokine interleukin-1 $\beta$
  - Interleukin 6
  - Prostaglandin E2
  - Ab response of mother & fetus

# PERIODONTAL DISEASE

## Adverse birth outcomes data

### Mild to moderate periodontal disease

- 2.83 OR (95% CI: 1.79, 4.47) delivery < 37 wks
- 4.18 OR (95% CI: 1.41, 12.42) delivery < 32 wks

### Severe periodontal disease

- 4.45 OR (95% CI: 2.16, 9.18) delivery < 37 wks
- 7.07 OR (95% CI: 1.70, 27.4) delivery < 32 wks



# RISK FACTORS FOR DENTAL DECAY

# RISK FACTORS FOR DENTAL DECAY

Not just what you eat but how you eat



# RISK FACTORS FOR DENTAL DECAY

Breast-feeding vs. bottle-feeding



# RISK FACTORS FOR DENTAL DECAY

Bottle-feeding vs. “Sippy Cup”



# RISK FACTORS FOR DENTAL DECAY

Family oral health status & habits



# RISK FACTORS FOR DENTAL DECAY

## Summary

- Poor oral hygiene practices
- Poor oral hygiene
- Fluoride status
- Feeding practices
- Prior history of dental decay
- Racial / ethnic minority
- Socio-economic status
- Limited access to dental care
- Snacking habits
- Education & literacy
- Special health care needs

# THE ROLE OF SALIVA

- Saliva helps protect the teeth from dental decay
- Salivary flow is reduced during sleep, and that's why we often wake up with a very dry mouth
- It is particularly important to brush before going to sleep and, in the case of a young child, to have the parent help with brushing before bed time

# PREVENTING ECC

The bottle is for healthful meals

**How Do I Bottle Feed My Baby?**

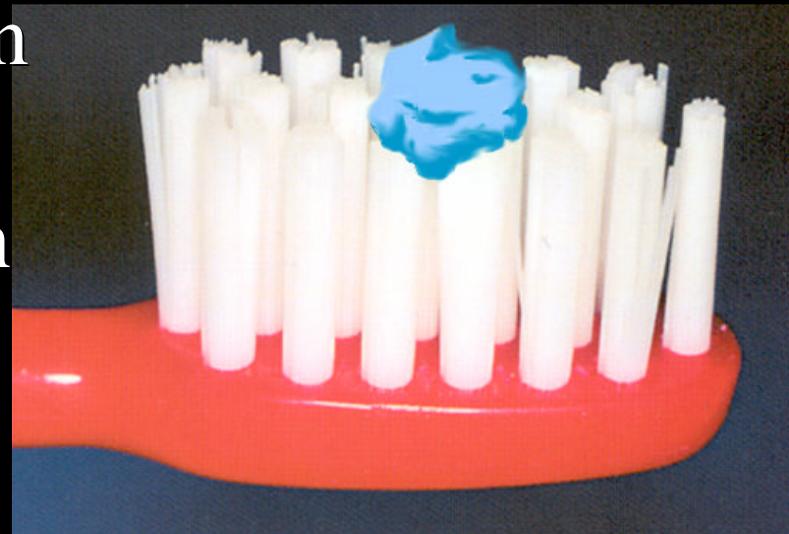


**Enjoy a Meal with Someone You Love...**

# PREVENTION

Good oral hygiene starts ~ age 4-6 months

- Clean with soft nylon brush & small *pearl* of toothpaste as soon as tooth erupts
- The parent/caregiver should dispense the toothpaste and brush the teeth for the child at least once a day until age 6 or 7 years



# PREVENTION

Good oral hygiene starts ~ age 4-6 months

- The infant should be seated in the adult's lap, both facing in the same direction
- The toddler sits or stands in front of the adult, both facing the mirror.



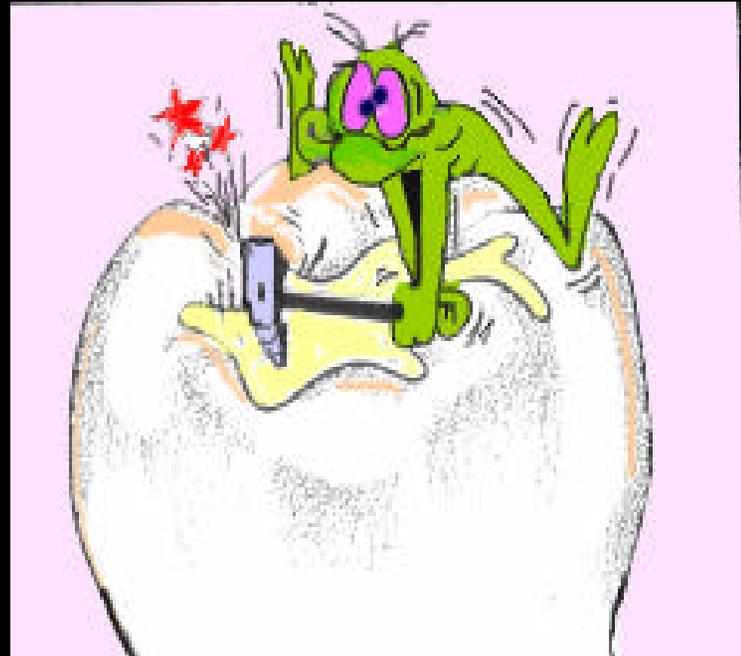
PREVENTION

FLUORIDE

Fluoride

# PREVENTION

Dental sealants by age 6-7



# SUMMARY & KEY POINTS

## Prenatal

### Brush and floss daily

- Extra special care of teeth and gums is needed during pregnancy
- Brush at least twice a day, using a soft toothbrush and fluoridated toothpaste
- Be sure to brush with the tooth brush placed where the teeth and gums meet
- A small amount of bleeding the first few days is not unusual, particularly during pregnancy.

# SUMMARY & KEY POINTS

## Prenatal

### Eat healthy foods

- Limit snacking on soda, sweets and starchy snacks like potato chips
- Get plenty of calcium for the baby's developing teeth and bones, from milk, cheese, dried beans and leafy green vegetables.

# SUMMARY & KEY POINTS

## Prenatal

### Get a dental check-up

- Remember that dental decay and gum infections affect the health of the whole body
- The blood that runs through the teeth and gums is the same that runs through the rest of the body ... *so* ...
- A dentist should check and clean the teeth and gums, along with any other needed dental work, early in pregnancy.

# SUMMARY & KEY POINTS

## 0 – 6 Months

### Baby teeth are important

- Baby teeth play a key role in eating and nutrition, speech development, jaw and permanent tooth development, smiling and appearance
- A healthy mother's mouth is a healthy child's mouth. Decay-causing germs are passed on to the baby through daily contact such as food sharing. The more dental decay in the mother, the greater likelihood of decay in the child.

# SUMMARY & KEY POINTS

## 0 – 6 Months

### Baby teeth are important

- Gently wipe the gums & tongue after each feeding with a clean, damp washcloth or gauze square
- Prevent early childhood caries. Never put a baby to bed with a bottle. Once started, this a very hard habit to break.
- Fluoride given to a 6-month old child will strengthen and protect both the baby and permanent teeth.

# SUMMARY & KEY POINTS

## 6 - 18 Months

### Baby teeth are important

- At 12 months of age, or as soon as the baby begins reaching for jewelry and grabbing toys, it is time to wean the baby off the bottle and introduce the “sippy” cup.
- It is much easier to wean a 12 month old than it is to wean a 2 year old. It may be messy at first, but after a few days, baby will stop fussing and learn to love this new skill.

# SUMMARY & KEY POINTS

## 6 - 18 Months

### Baby teeth are important

- When the baby teeth erupt, caregivers should clean the teeth daily with a damp, soft nylon baby toothbrush and a small pearl of fluoride toothpaste. The child should not rinse or spit after brushing.
- Caregivers should look for dental decay in their babies' teeth. Remember to lift the lip. Any white or brown spots should be checked by a dentist.

# WHAT TO DO & HOW TO DO IT

## Risk assessment

Risk Level: Low  
Disease Status: None

- Counseling to maintain low risk
- Anticipatory guidance
- Primary prevention
- Refer to dentist, identify a **dental home**
- Record findings
- Monitor

Risk Level: High  
Disease Status: None

- Risk management program
- Anticipatory guidance
- Primary prevention
- Refer to dentist, identify a *dental home*
- Record findings
- Monitor
- Reassess in 6 mos

Risk Level: L to H  
Disease Status: Early

- Risk management program
- Anticipatory guidance
- Begin disease management
- Refer to dentist for Dx & Tx
- Record findings
- Monitor
- Reassess in 6 mos

Risk Level: L to H  
Disease Status: Advanced

- Risk management program
- Anticipatory guidance
- Advanced disease management
- Refer to dentist for Dx & Tx
- Record findings
- Monitor
- Reassess in 3-6 mos based on risk

# WHAT TO DO & HOW TO DO IT

## Anticipatory Guidance

### Birth – 6 Months

- Review nutrition & eating habits
- No napping or sleeping with the bottle
- Encourage introduction of “sippy” cup
- Begin tooth brushing as soon as first baby tooth erupts with a tiny pearl of fluoride toothpaste
- Help evaluate fluoride needs

# WHAT TO DO & HOW TO DO IT

## Anticipatory Guidance

### 9 Months

- Reinforce brushing with fluoride toothpaste

### 12 Months

- Check teeth & mouth
- Help identify a dental “home”
- Reinforce brushing with fluoride toothpaste
- Discuss mouth & tooth injury prevention
- Have dentists’ emergency numbers handy

# WHAT TO DO & HOW TO DO IT

## Anticipatory Guidance

### 15 Months

- Reinforce brushing with fluoride toothpaste

### 18 Months

- Check teeth & mouth
- Reinforce brushing with fluoride toothpaste

### 24 Months

- Refer all children to dentist
- Reinforce brushing with fluoride toothpaste
- Reinforce injury prevention and response

# WHAT TO DO & HOW TO DO IT

## Anticipatory Guidance

### 36 Months & older

- Reinforce brushing with fluoride toothpaste
- Reinforce injury prevention and response
- Help evaluate for change in fluoride needs

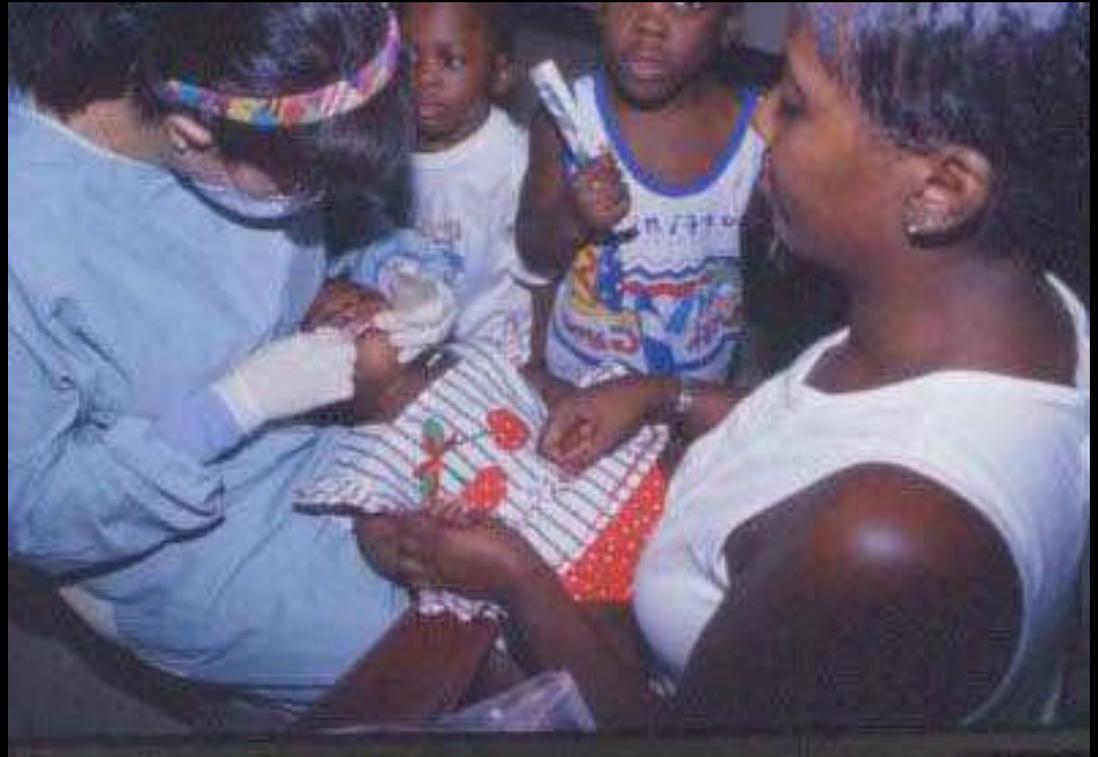


# SCREENING FOR DECAY AND OTHER DENTAL DISEASES AND CONDITIONS

# WHAT TO DO & HOW TO DO IT

## Screening

- Adequate direct lighting
- Tongue blade, toothbrush, disposable mirror, 2”x2” gauze
- Mask & gloves
- “Smile Check” or “Lift-the-Lip”

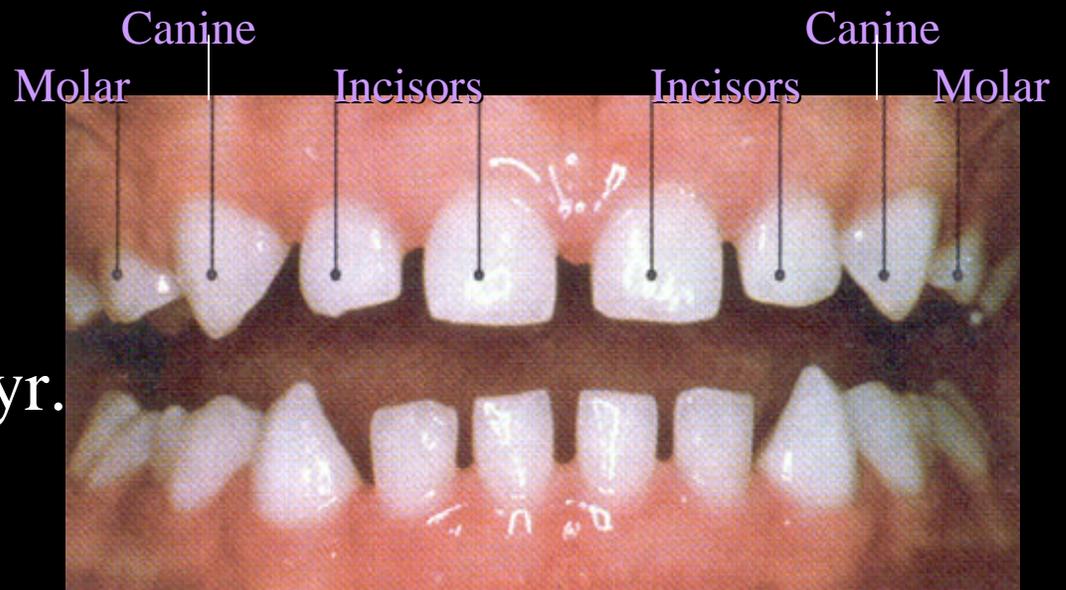


# WHAT TO DO & HOW TO DO IT

## Screening

Check for age-appropriate presence of teeth

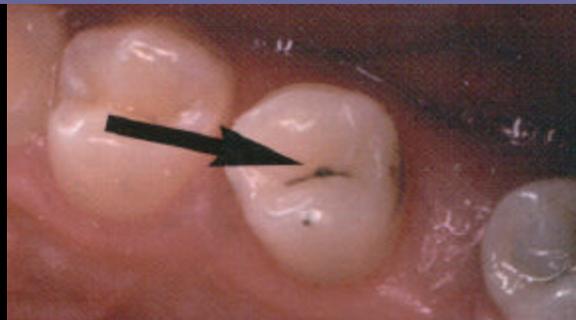
- | Baby Tooth               | Comes in at or about                  |
|--------------------------|---------------------------------------|
| • Incisors               | 6 mos.                                |
| • 1st Molars             | 1st yr.                               |
| • Canines                | 1 <sup>st</sup> – 2 <sup>nd</sup> yr. |
| • 2 <sup>nd</sup> Molars | 2 <sup>nd</sup> yr.                   |



# WHAT TO DO & HOW TO DO IT

## Screening: Dental Decay

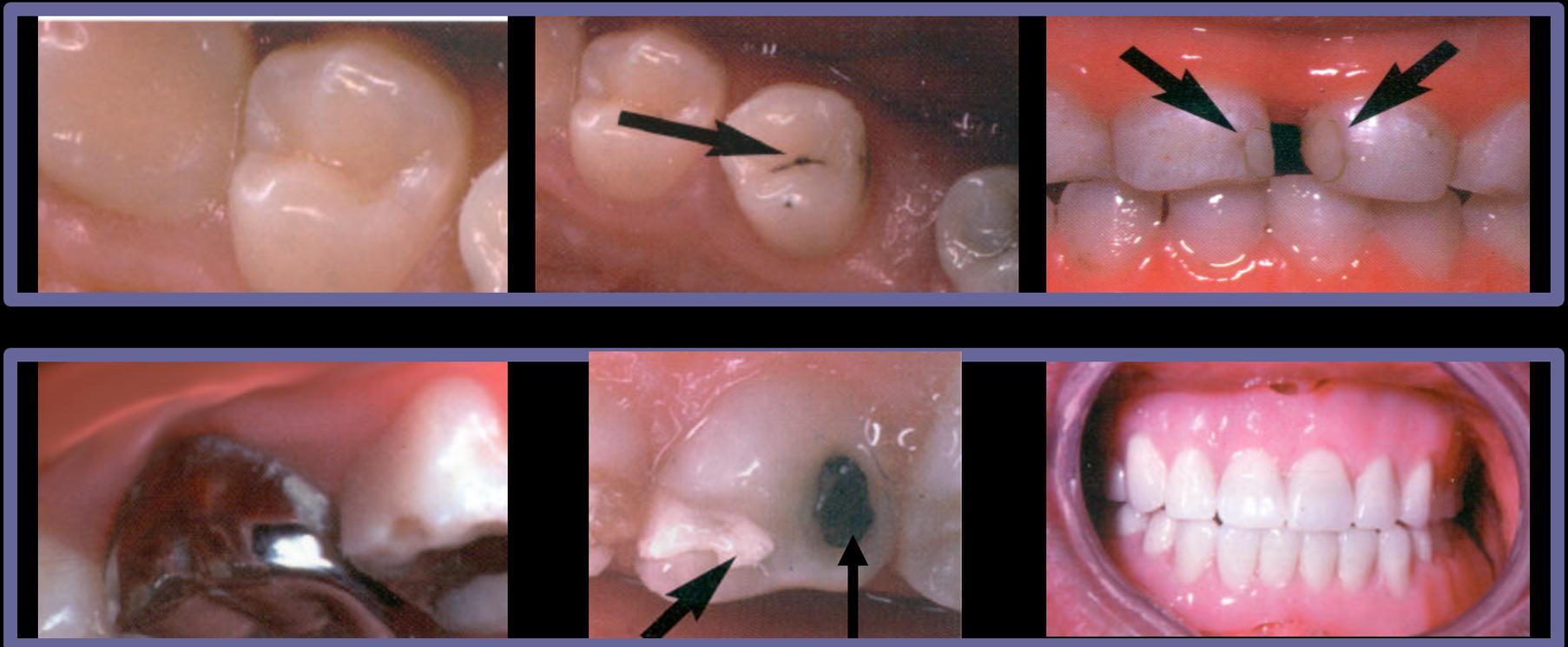
Do any teeth have untreated decay?



# WHAT TO DO & HOW TO DO IT

## Screening: Restorations (Fillings)

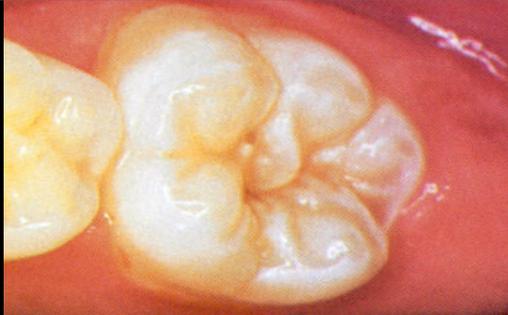
Does it appear that there are any dental restorations or fillings?



# WHAT TO DO & HOW TO DO IT

## Screening: Sealants

Does the child, age 15 or younger, have a sealant on the chewing surface of at least one permanent molar tooth?



# WHAT TO DO & HOW TO DO IT

## Treatment Interventions: Fluoride

| Age           | Dietary Fluoride Supplement                             |               |          |
|---------------|---|---------------|----------|
|               | Fluoride ion level in drinking water (ppm) <sup>1</sup> |               |          |
|               | <0.3 ppm  | 0.3 – 0.6 ppm | >0.6 ppm |
| Birth – 6 mos | None  | None          | None     |
| 6 mos – 3 yrs | 0.25 mg/day <sup>2</sup>                                | None          | None     |
| 3 – 6 yrs     | 0.50 mg/day   | 0.25 mg/day   | None     |
| 6 – 16 yrs    | 1.0 mg/day  | 0.50 mg/day   | None     |

<sup>1</sup> 0.1 part per million (ppm) = 1 milligram / liter

<sup>2</sup> 2.2 milligrams sodium fluoride contains 1 milligram fluoride ion.

# WHAT TO DO & HOW TO DO IT

## Treatment Interventions: Inflammation

|                             |   |   |
|-----------------------------|---|---|
| <b>Signs &amp; Symptoms</b> | <ul style="list-style-type: none"><li>✓ Painful tooth</li><li>✓ Tender tooth</li><li>✓ Red puffy gums</li><li>✓ Red tender facial swelling</li></ul>                            | <ul style="list-style-type: none"><li>✓ Painful mouth or jaw</li><li>✓ Tender gums</li><li>✓ Tender gum swelling over root of tooth</li><li>✓ Low grade fever</li></ul> |
| <b>Treat Inflammation</b>   | Vigorous rinses 3 – 4 times / day with a small cup (approx. 6 ozs.) of warm water containing approximately: ¼ tsp. table salt<br>¼ tsp. baking soda<br>1 oz. hydrogen peroxide. |   |

# WHAT TO DO & HOW TO DO IT

## Treatment Interventions: Pain & Infection

|                                     |   |                               |
|-------------------------------------|---|-------------------------------|
| Treat Pain                          | <ul style="list-style-type: none"><li>• Non-steroidal anti-inflammatory drug (NSAID)</li><li>• Narcotic / Acetaminophen combination analgesic</li></ul> |                               |
| Treat Infection                     | Adult<br>(15 yrs. old +)  | Pediatric<br>(2 – 14 yrs old) |
| Penicillin VK                       | 500 mg, 1 QID   | 25 – 50 mg / kg / day, q6h    |
| Penicillin Allergy:<br>Erythromycin | 250 mg QID  | 30 – 50 mg / kg / day, q6h    |
| Second line:<br>Cephalexin          | 500 mg, 1 QID   | 25 – 50 mg / kg / day, q6h    |



For more information contact:

State of Connecticut Department of Public Health

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