

# "DENTISTRY 101"

National Oral Health  
Conference

April 30, 2005

Pittsburgh, Pennsylvania

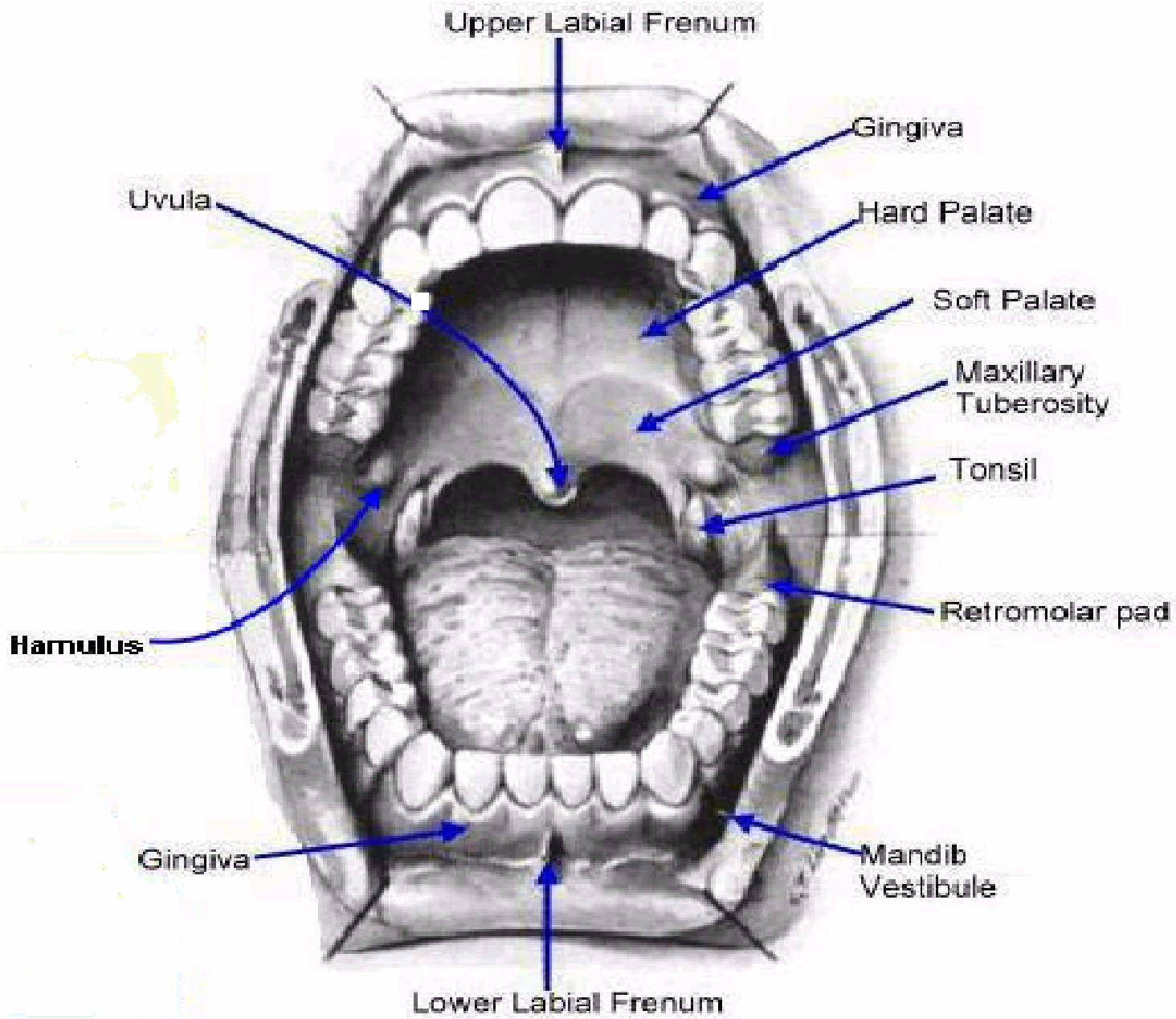
# Itinerary

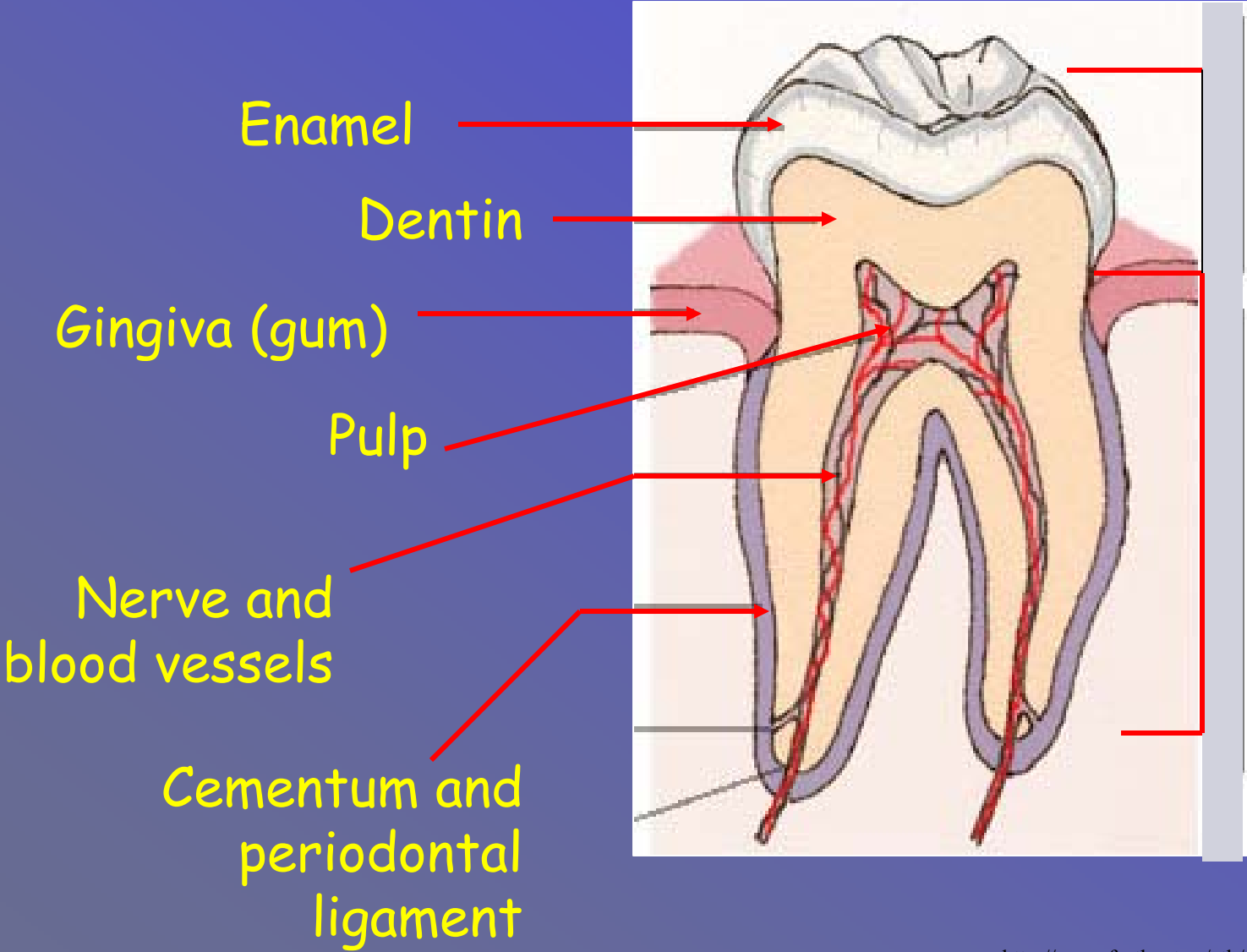


- The mouth and its parts
- Dental disease-decay, periodontal
- DentistryDentistryDentistryDentistryDentistry
- The business of dentistry
- Policy Drivers
- Hot topics

# The Mouth and Its Parts







00000000000000000000

# The Dental Arch

- Maxillary (upper) Arch: part of the skull, incapable of movement.
- Mandibular (lower) Arch: capable of movement.

The action of the temporomandibular joint brings the mandibular arch into contact with the maxilla as we talk, chew or swallow.

# Teeth

- Deciduous, primary, "baby"
- Permanent

# Healthy Primary Teeth are Important

- Chewing and nutrition
- Development of the permanent teeth
- Facial structure
- Speech development





# Deciduous Teeth

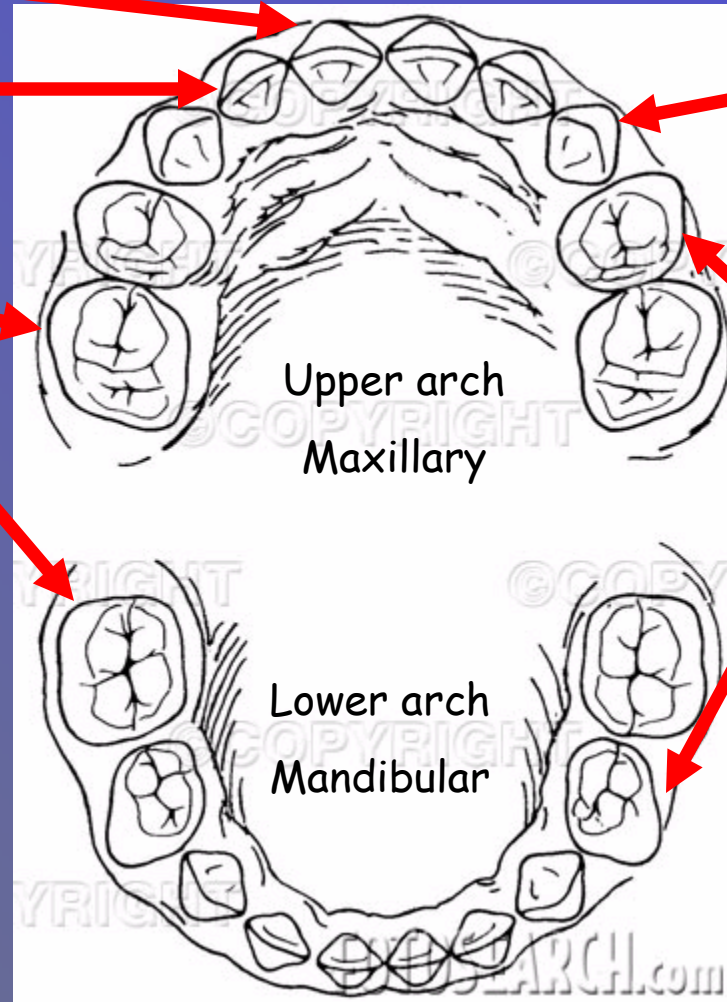
Central Incisor

Lateral Incisor

2nd Molar

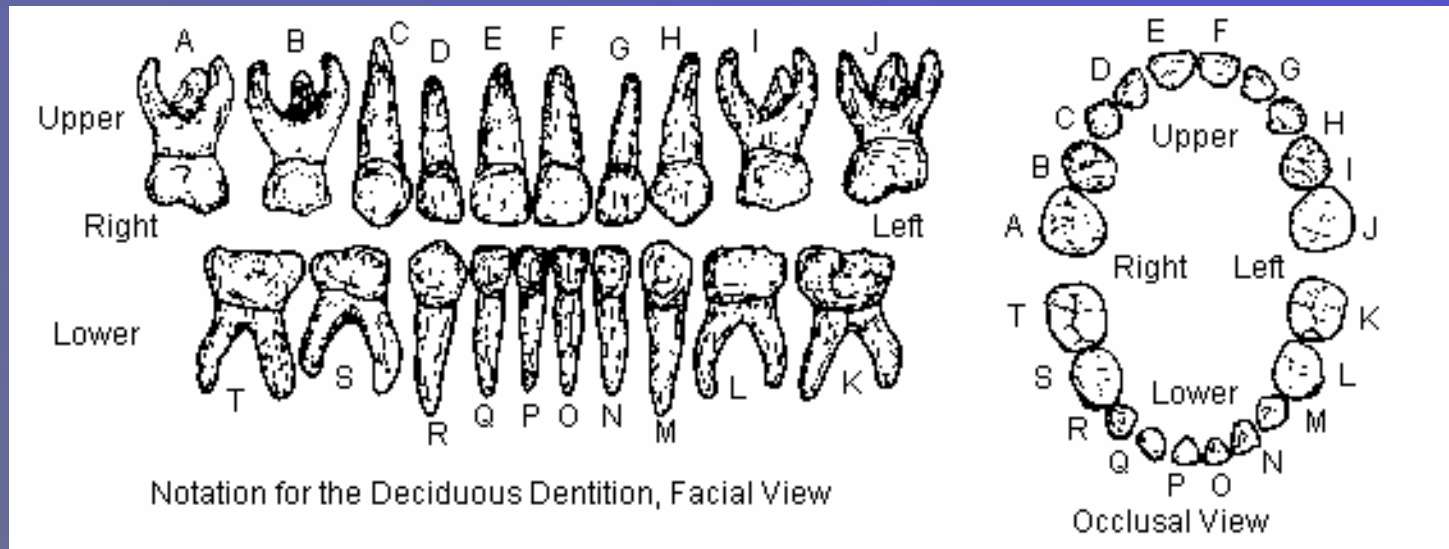
Canine

1st Molar



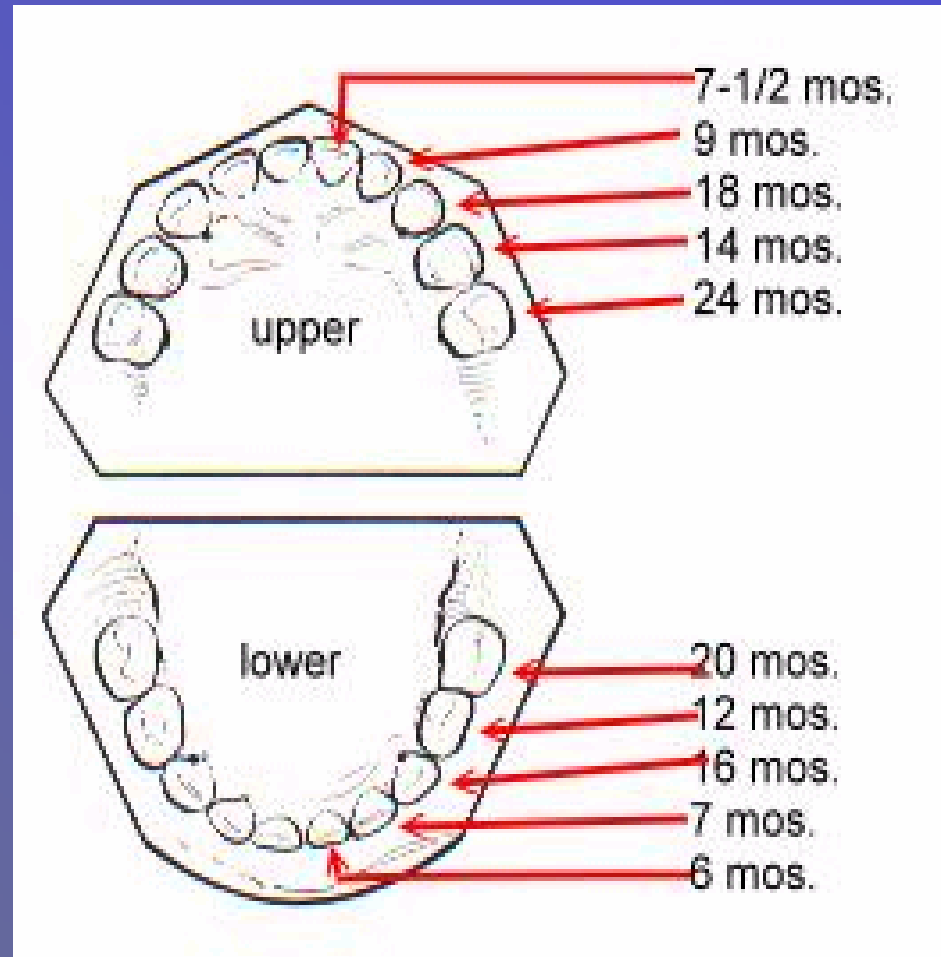
# Deciduous Teeth

## Notation



# Deciduous Teeth

## Eruption Schedule



# The Primary Arch

## Upper Teeth

Central incisor

## ERUPT

8-12 mos

## SHED

6-7 yrs

Lateral incisor

9-13 mos

7-8 yrs

Canine

16-22 mos

10-12 yrs

1<sup>st</sup> molar

13-19 mos

9-11 yrs

2<sup>nd</sup> molar

25-33 mos

10-12 yrs

## Lower Teeth

2<sup>nd</sup> molar

23-31 mos

10-12 yrs

1<sup>st</sup> molar

14-18 mos

9-11 yrs

Canine

17-23 mos

9-12 yrs

Lateral incisor

10-16 mos

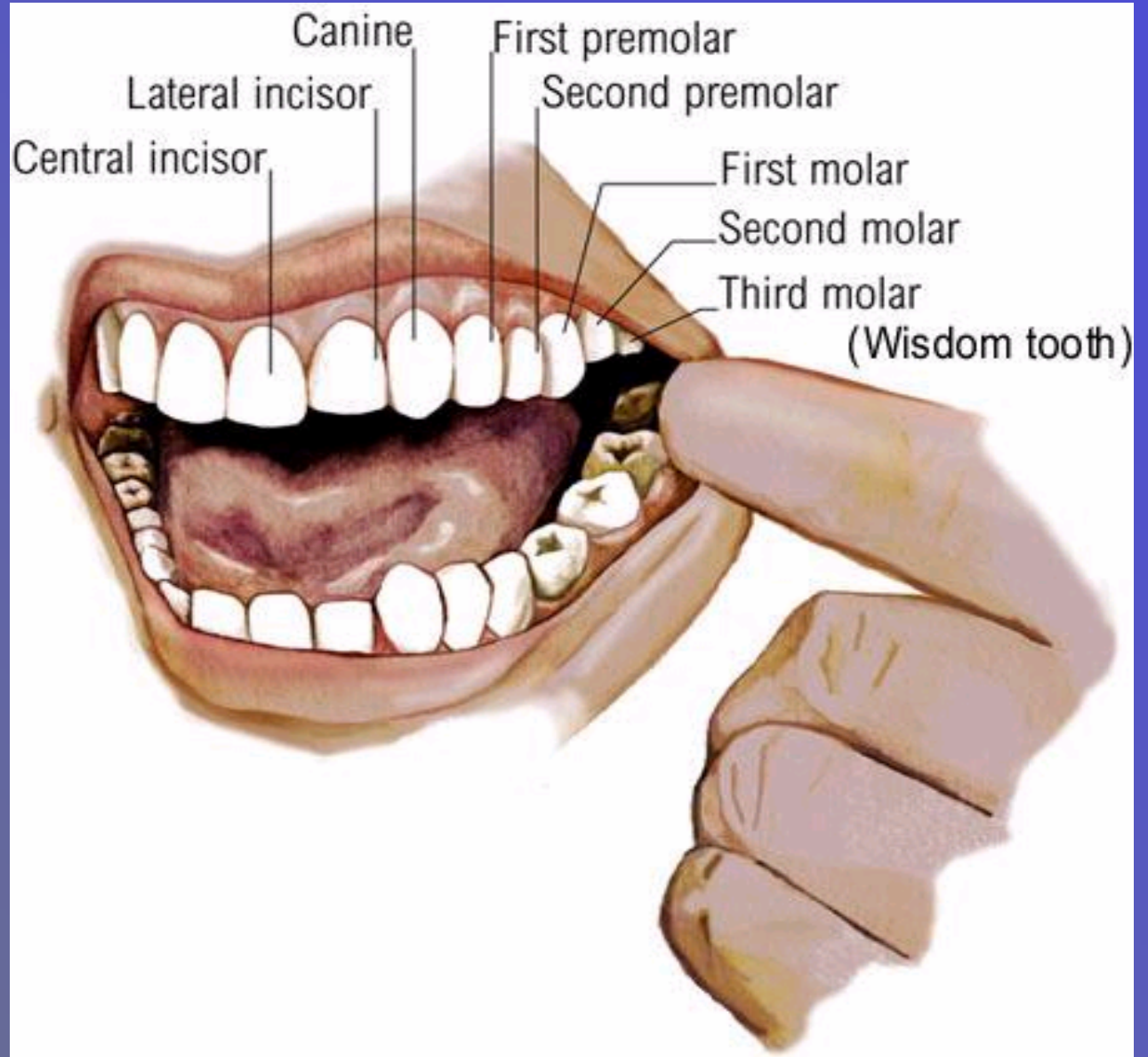
7-8 yrs

Central incisor

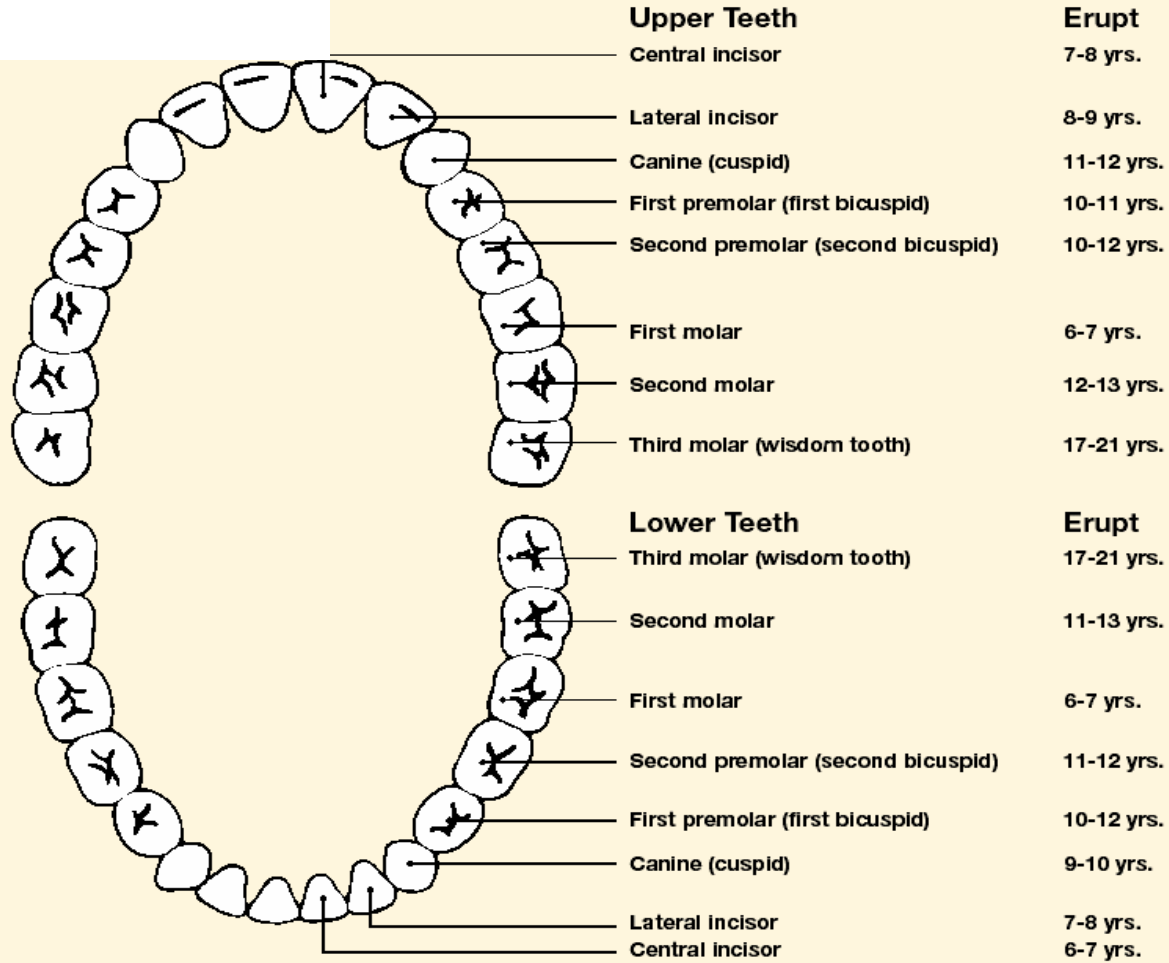
6-10 mos

6-7 yrs

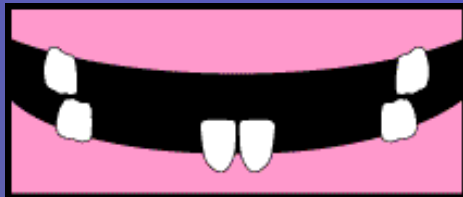
I H M M H H Z M Z A Z M Z A Z M Z P



# U r e c t p e r i t i o n



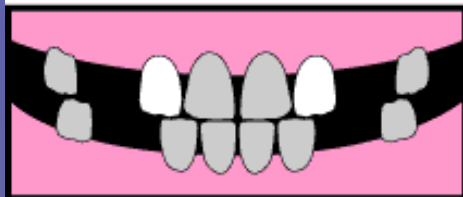
# Eruption



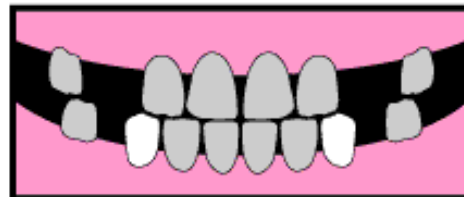
6 to 7 years



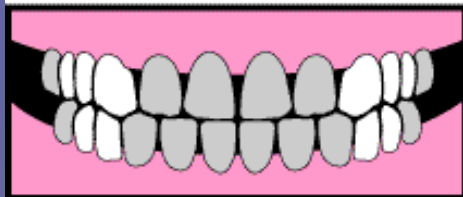
7 to 8 years



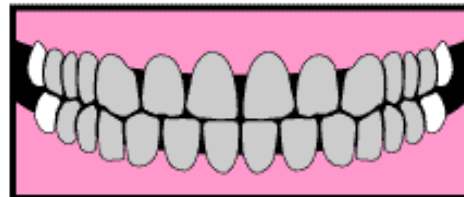
8 to 9 years



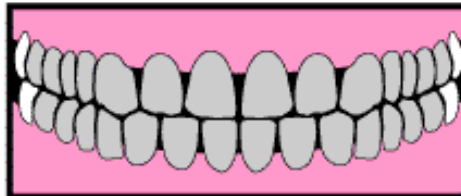
9 to 10 years



10 to 12 years



11 to 13 years



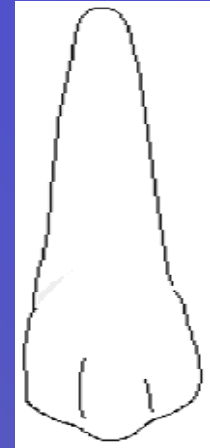
17 to 21 years

# Function

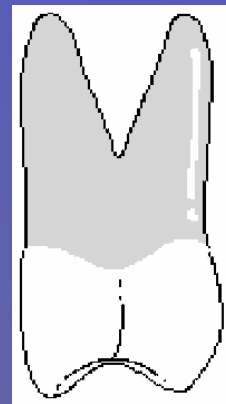
**incisors**



**cuspid**



**bicuspid (premolar)**



**molars**



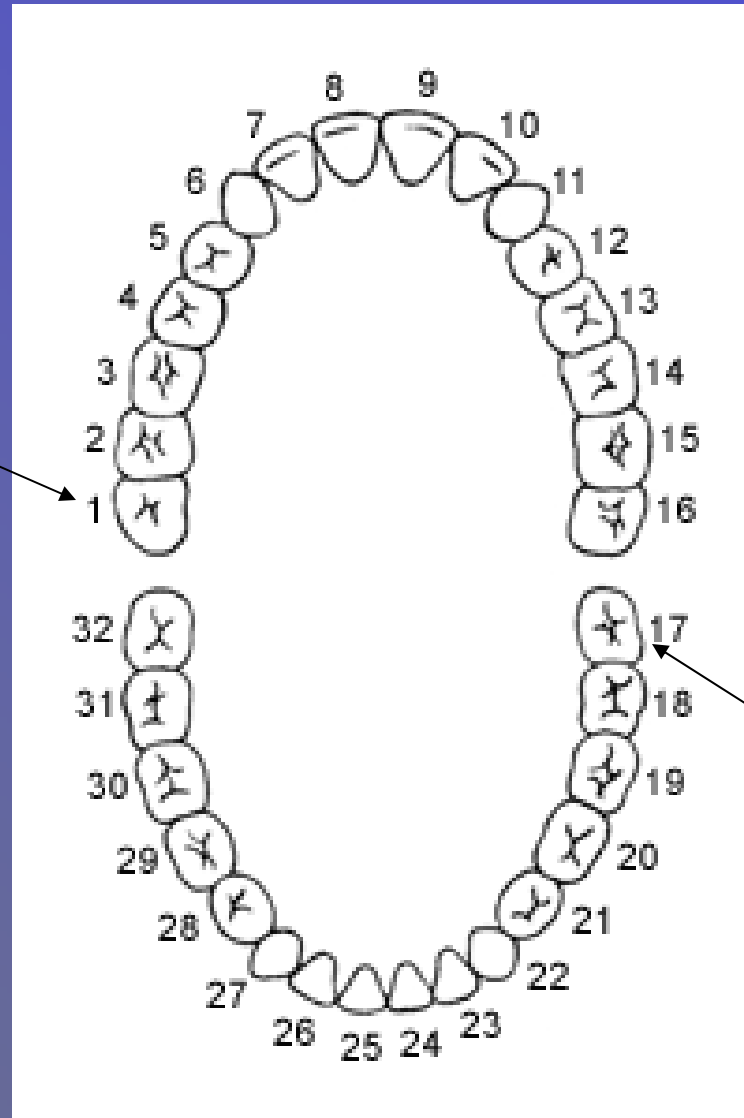


# Tooth Numbering System

## Permanent Dentition

- A number from 1-32 identifies each tooth in sequential order across both arches.
  - Tooth #1 is the upper right third molar, and numbering continues across the upper arch to the upper left third molar, #16.
  - Tooth # 17 is the lower left third molar and this sequence continues around the lower arch to the patient's lower right third molar, #32.

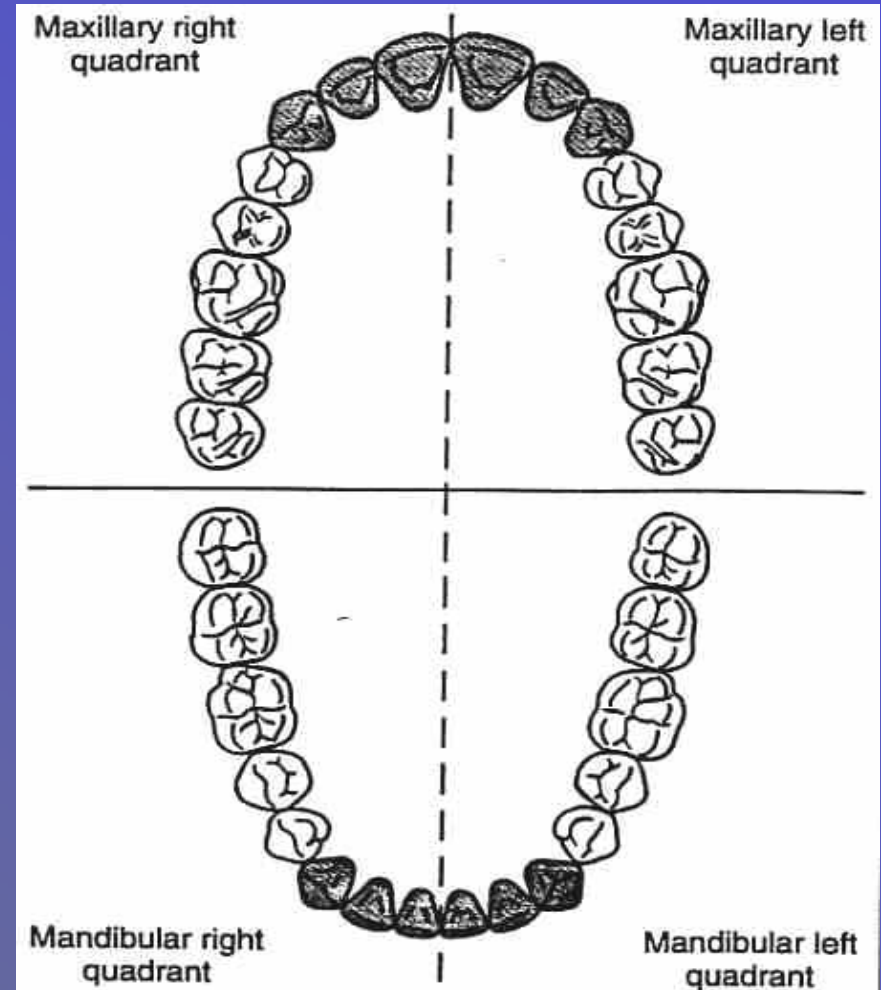
Upper  
Right



Lower  
Left

# Quadrant

- One of four equal sections into which the dental arches can be divided. Each quadrant begins at the midline of the arch and extends distally (back) to the last tooth.



# Tooth Surfaces

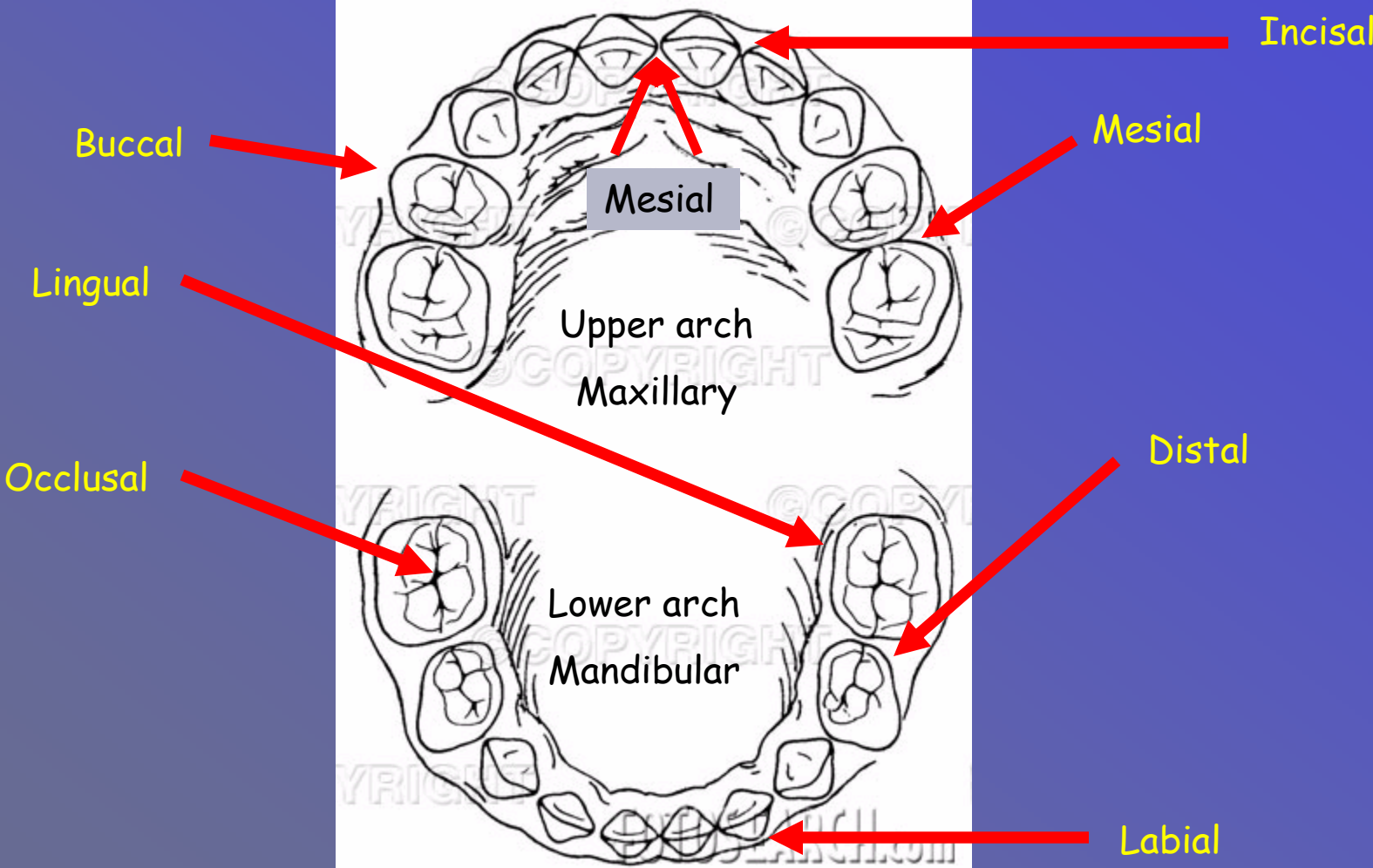


- **Mesial:** toward the midline of the dental arch.
- **Distal:** toward the back of the dental arch, away from the midline.
- **Lingual:** closest to the tongue.
- **Facial:** near the cheek:
  - **Labial:** anteriors
  - **Buccal:** posteriors

# Tooth Surfaces, Cont.

- **Occlusal:** top (biting) surfaces of premolars and molars.
- **Incisal:** thin biting surface of incisors and cuspids.

# Teeth



Dental disease

# Decay

- Contributing factors
- Demineralization
- Remineralization
- Fluoride
- Risk assessment
- Management



# How Does Decay Develop?

**PLAQUE** a sticky patch of bacteria,\* saliva, food & tissue cells on the tooth.

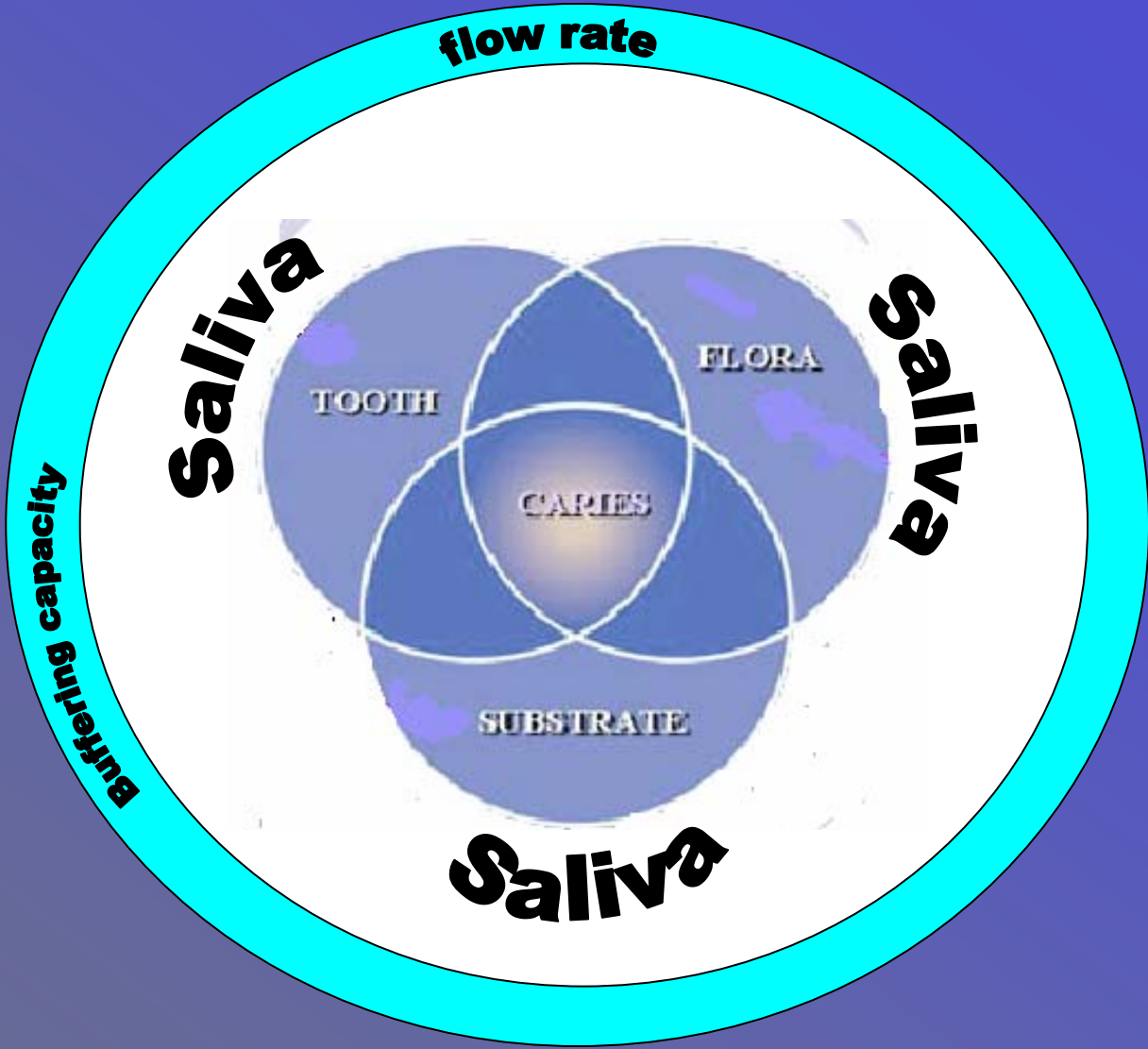
\* *Streptococcus mutans*

bacteria found in the mouth primarily involved in the decay process.

**Food** sugars are processed by *S. mutans*.

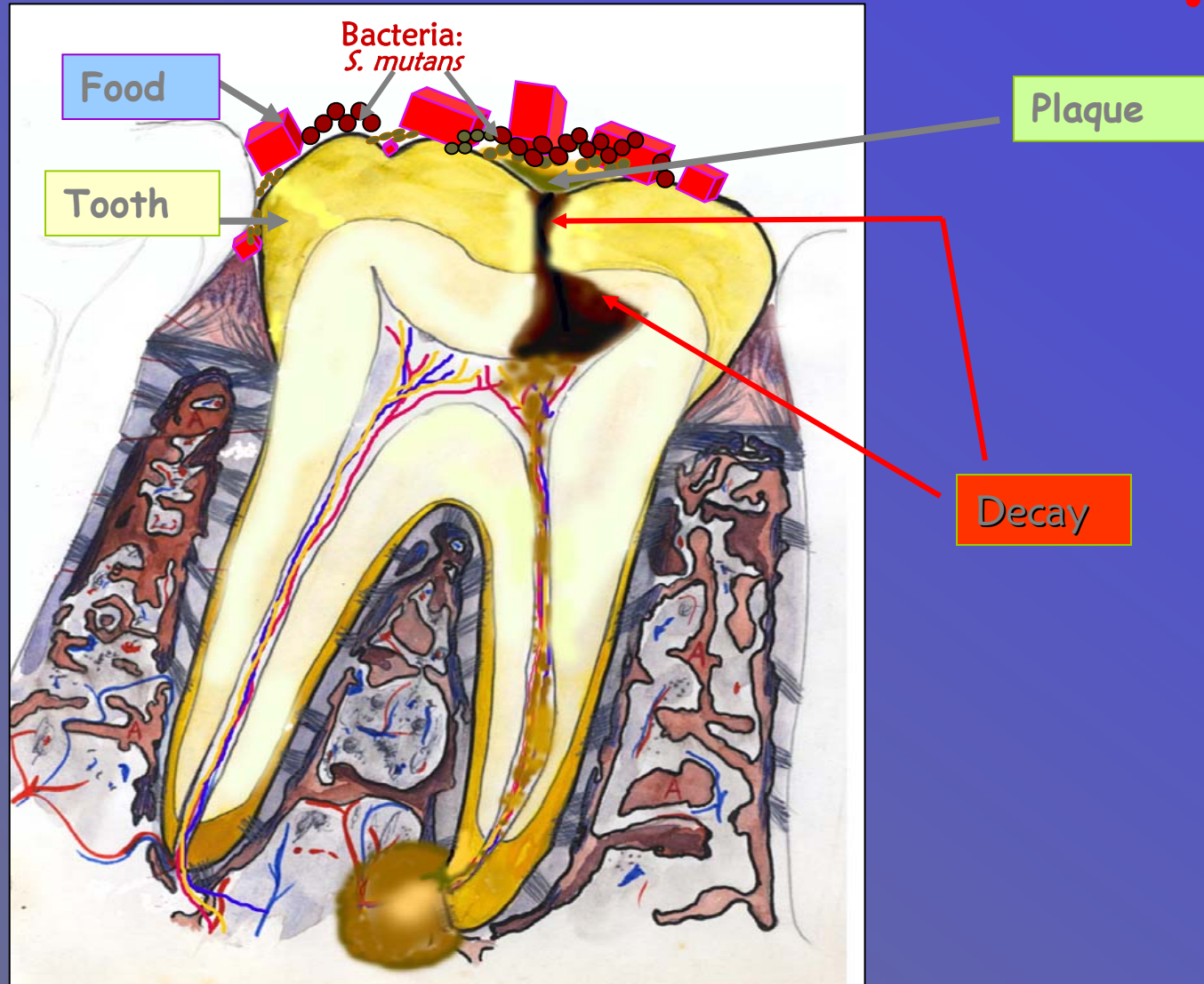
**Tooth** acids are produced and start eating away at the tooth.

Time

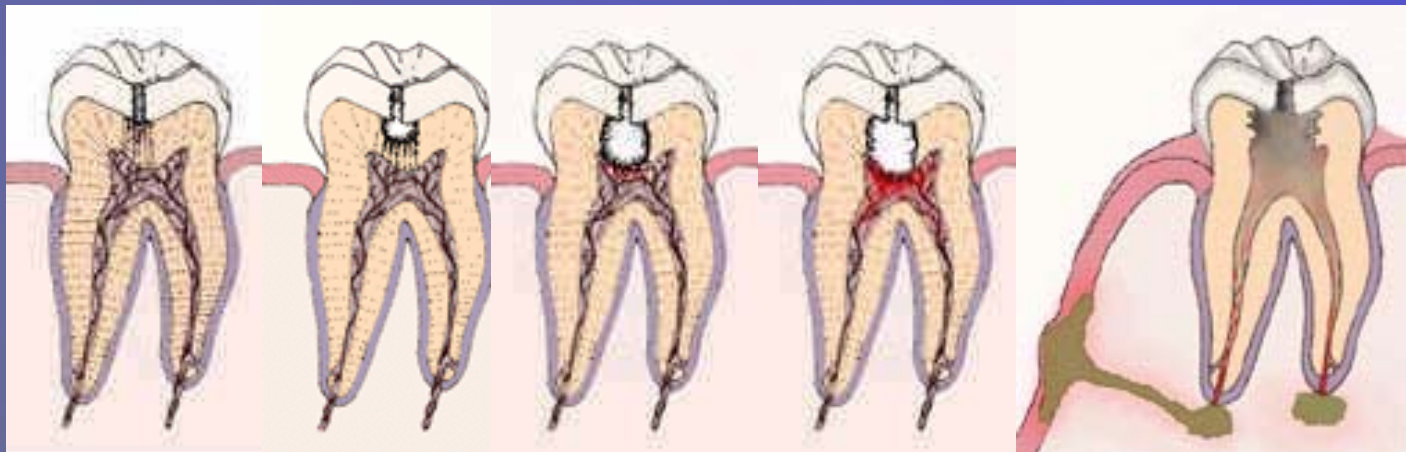


Time

Plaque + Food + Tooth = Decay



# Progression of Decay



# Early Childhood Caries ECC

- Presence of 1 or more carious lesions, missing (due to caries) or filled tooth surfaces in any primary tooth in a child 71 months of age or younger

# Early Childhood Caries ECC (cont'd)

- 4-20 teeth involved
- Caries that have possibly exposed pulps
- Possible dental abscesses
- Acute/chronic pain

# Early Childhood Caries

## ECC (cont'd)

- Higher risk of new carious lesions in both primary and permanent teeth
- Hospitalization and ER visits
- Increased treatment costs and time
- Delay in physical development
- Loss of school days
- Increased days of restricted activity
- Diminished ability to learn
- Diminished oral health related quality of life

# Treatment of ECC

- Multiple stainless steel crowns
- Composite restorations
- Extractions
- Space maintainers
- Possibly treatment in a hospital setting



# Risk Assessment

"A diagnostic process where clinical, historical and social risk factors are used to determine the likelihood whether a child will have dental disease."

# Risk Assessment-Relapse Factor of ECC

- 79% of ECC children compared w/29% of non-ECC children developed new carious lesions at subsequent recall visits.
- 1/5 of ECC children treated under general anesthesia required retreatment within 2 years.

# AAPD Caries Risk Assessment Tool (CAT)

[http://www.aapd.org/members/referencemanual/pdfs/02-03/P\\_CariesRiskAssess.pdf](http://www.aapd.org/members/referencemanual/pdfs/02-03/P_CariesRiskAssess.pdf)

AAPD Caries-risk Assessment Tool (CAT)			
Caries-risk indicators	Low risk	Moderate risk	High risk
<b>Clinical conditions</b>	<ul style="list-style-type: none"> <li>No carious teeth in past 24 months</li> <li>No enamel demineralization (enamel caries "white-spot lesions")</li> <li>No visible plaque; no gingivitis</li> </ul>	<ul style="list-style-type: none"> <li>Carious teeth in the past 24 months</li> <li>1 area of enamel demineralization (enamel caries "white-spot lesions")</li> <li>Gingivitis*</li> </ul>	<ul style="list-style-type: none"> <li>Carious teeth in the past 12 months</li> <li>More than 1 area of enamel demineralization (enamel caries "white-spot lesions")</li> <li>Visible plaque on anterior (front) teeth</li> <li>Radiographic enamel caries</li> <li>High titers of mutans streptococci</li> <li>Wearing dental or orthodontic appliances†</li> <li>Enamel hypoplasia‡</li> </ul>
<b>Environmental characteristics</b>	<ul style="list-style-type: none"> <li>Optimal systemic and topical fluoride exposure§</li> <li>Consumption of simple sugars or foods strongly associated with caries initiation primarily at mealtimes  </li> <li>High caregiver socioeconomic status¶</li> <li>Regular use of dental care in an established dental home</li> </ul>	<ul style="list-style-type: none"> <li>Suboptimal systemic fluoride exposure with optimal topical exposure§</li> <li>Occasional (ie, 1-2) between-meal exposures to simple sugars or foods strongly associated with caries</li> <li>Mid-level caregiver socioeconomic status (ie, eligible for school lunch program or SCHIP)</li> <li>Irregular use of dental services</li> </ul>	<ul style="list-style-type: none"> <li>Suboptimal topical fluoride exposure§</li> <li>Frequent (ie, 3 or more) between-meal exposures to simple sugars or foods strongly associated with caries</li> <li>Low-level caregiver socioeconomic status (ie, eligible for Medicaid)</li> <li>No usual source of dental care</li> <li>Active caries present in the mother</li> </ul>
<b>General health conditions</b>			<ul style="list-style-type: none"> <li>Children with special health care needs‡‡</li> <li>Conditions impairing saliva composition/flow**</li> </ul>

\*Although microbial organisms responsible for gingivitis may be different than those primarily implicated in dental caries, the presence of gingivitis is an indicator of poor or infrequent oral hygiene practices and has been associated with caries progression.

†Orthodontic appliances include both fixed and removable appliances, space maintainers, and other devices that remain in the mouth continuously or for prolonged time intervals and which may trap food and plaque, prevent oral hygiene, compromise access of tooth surfaces to fluoride, or otherwise create an environment supporting dental caries initiation.

‡Tooth anatomy and hypoplastic defects, such as poorly formed enamel, developmental pits, and deep pits, may predispose a child to develop dental caries.

§Optimal systemic and topical fluoride exposure is based on the American Dental Association/American Academy of Pediatrics guidelines for exposure from fluoride drinking water and/or supplementation<sup>10</sup> and use of a fluoride dentifrice.

||Examples of sources of simple sugars include carbonated beverages, coolides, cake, candy, cereal, potato chips, French fries, corn chips, pretzels, bread, juices, and fruits. Clinicians using caries-risk assessment should investigate individual exposures to sugars known to be involved in caries initiation.

¶National surveys have demonstrated that children in low-income and moderate-income households are more likely to have dental caries and more decayed or filled primary teeth than children from more affluent households. Also, within income levels, minority children are more likely to have caries. Thus, sociodemographic status should be viewed as an initial indicator of risk that may be offset by the absence of other risk indicators.

‡‡Children with special health care needs are those who have or are at increased risk for a chronic physical, developmental, behavioral, or emotional condition and who also require health and related services of a type or amount beyond that required by children generally.<sup>11</sup>

\*\*Alteration in salivary flow can be the result of congenital or acquired conditions, surgery, radiation, medication, or age-related changes in salivary function. Any condition, treatment, or process known or reported to alter salivary flow should be considered an indication of risk unless proven otherwise.

# Recommendations for Pediatric Oral Health Care

## Recommendations for Pediatric Oral Health Care

Since each child is unique, these recommendations are designed for the care of children who have no contributing medical conditions and are developing normally. These recommendations will need to be modified for children with special health care needs or if disease or trauma manifests variations from normal.

The American Academy of Pediatric Dentistry (AAPD) emphasizes the importance of *very* early professional intervention and the continuity of care based on the individualized needs of the child.

Age	6-12 months	12-24 months	2-6 years	6-12 years	12 years and older
Clinical oral examination <sup>1</sup>	•	•	•	•	•
Assess oral growth and development <sup>2</sup>	•	•	•	•	•
Caries-risk assessment <sup>3</sup>	•	•	•	•	•
Prophylaxis and topical fluoride treatment <sup>4</sup>		•	•	•	•
Fluoride supplementation <sup>5,6</sup>	•	•	•	•	•
Anticipatory guidance <sup>7</sup>	•	•	•	•	•
Oral hygiene counseling <sup>8</sup>	Parents/guardians/caregivers	Parents/guardians/caregivers	Patient/parents/guardians/caregivers	Patient/parents/guardians/caregivers	Patient
Dietary counseling <sup>9</sup>	•	•	•	•	•
Injury prevention counseling <sup>10</sup>	•	•	•	•	•
Counseling for nonnutritive habits <sup>11</sup>	•	•	•	•	•
Substance abuse counseling				•	•
Counseling for intraoral/perioral piercing				•	•
Radiographic assessment <sup>12</sup>			•	•	•
Treatment of dental disease/injury	•	•	•	•	•
Assessment and treatment of developing malocclusion			•	•	•
Fit and fissure sealants <sup>13</sup>			•	•	•
Assessment and/or removal of third molars					•
Referral for regular and periodic dental care					•

- <http://www.aapd.org/media/policies.asp>

# RECOGNIZING EARLY DECAY

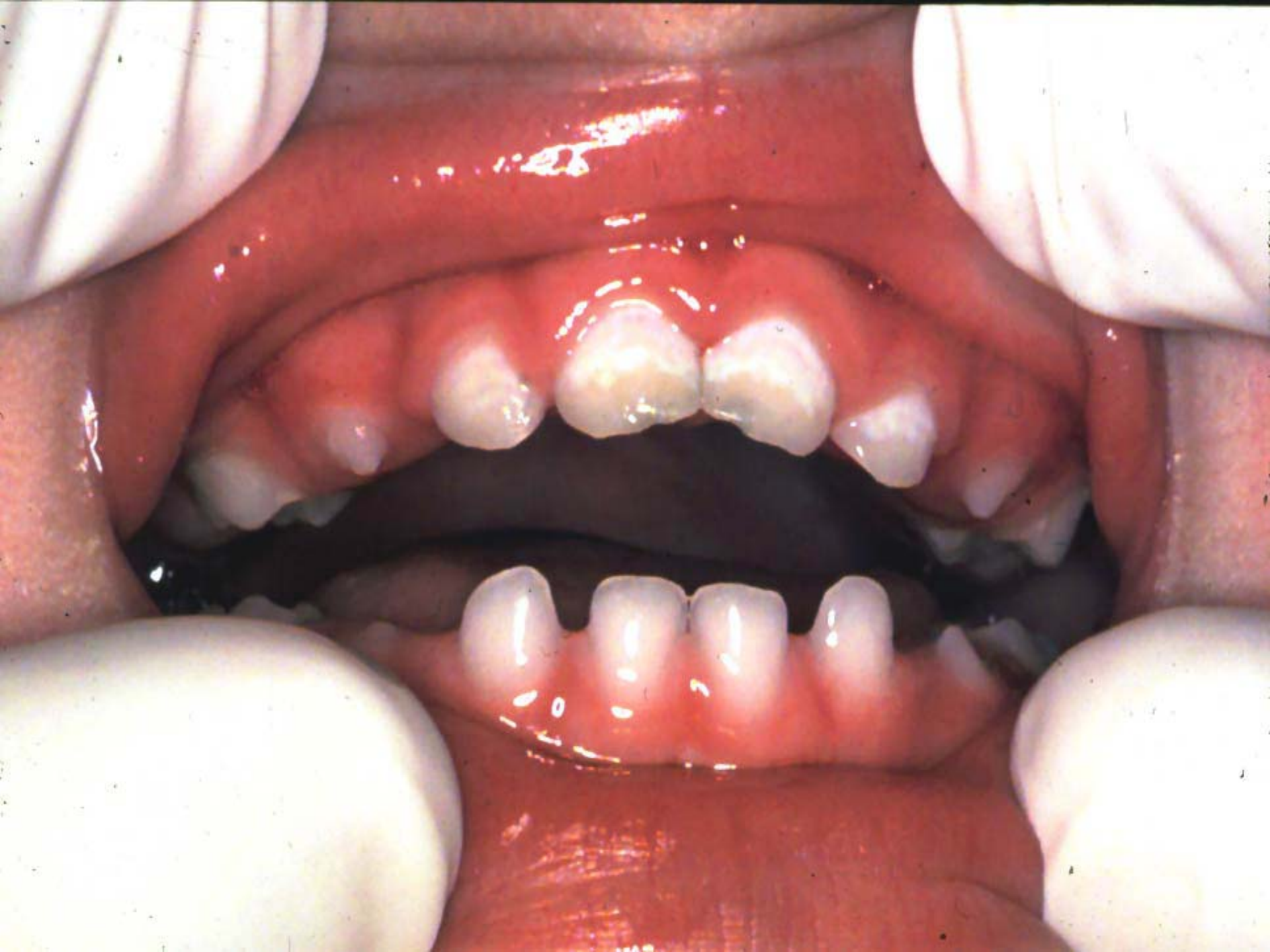
WHITE SPOT LESIONS

=

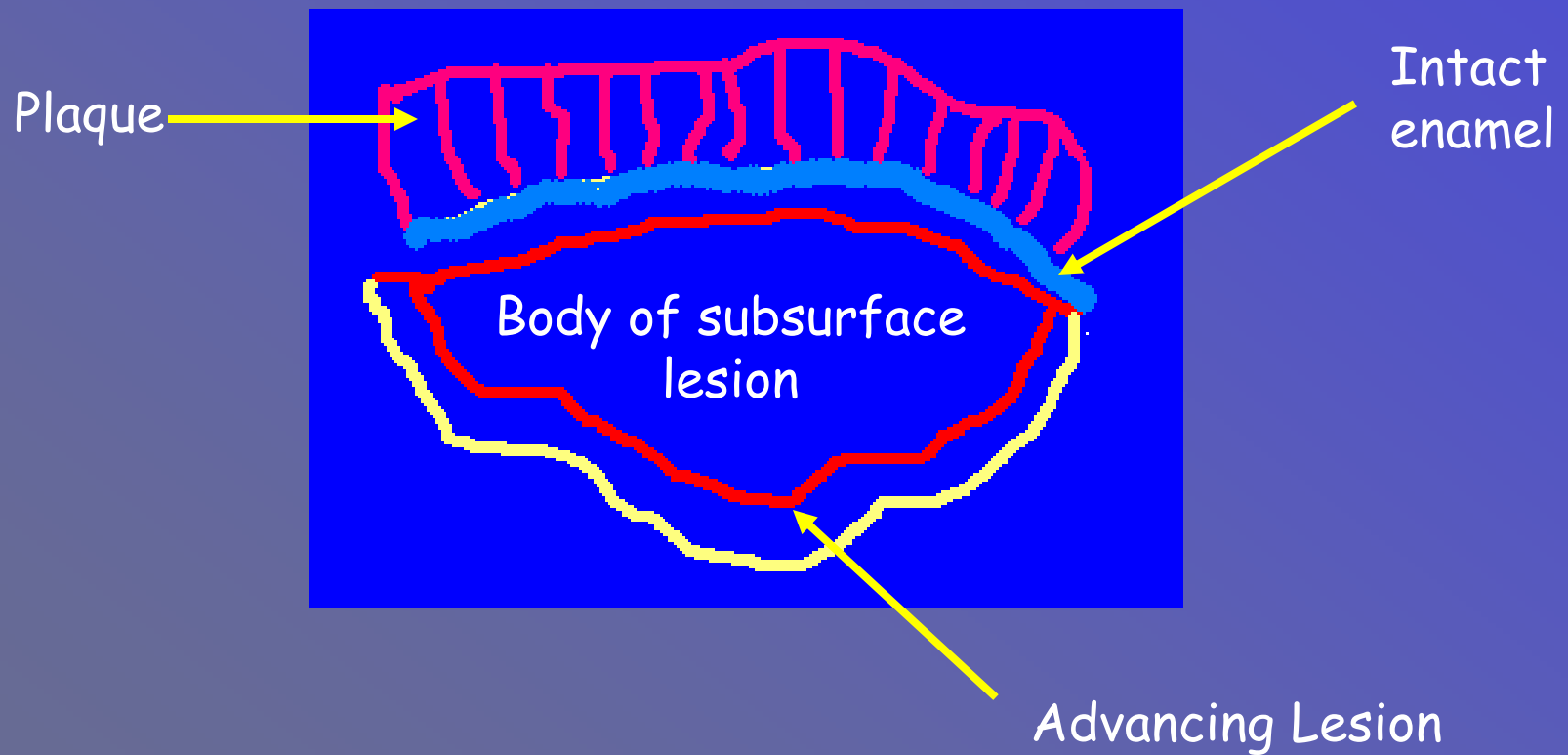
Subsurface  
demineralization







# Subsurface Lesion/demineralization



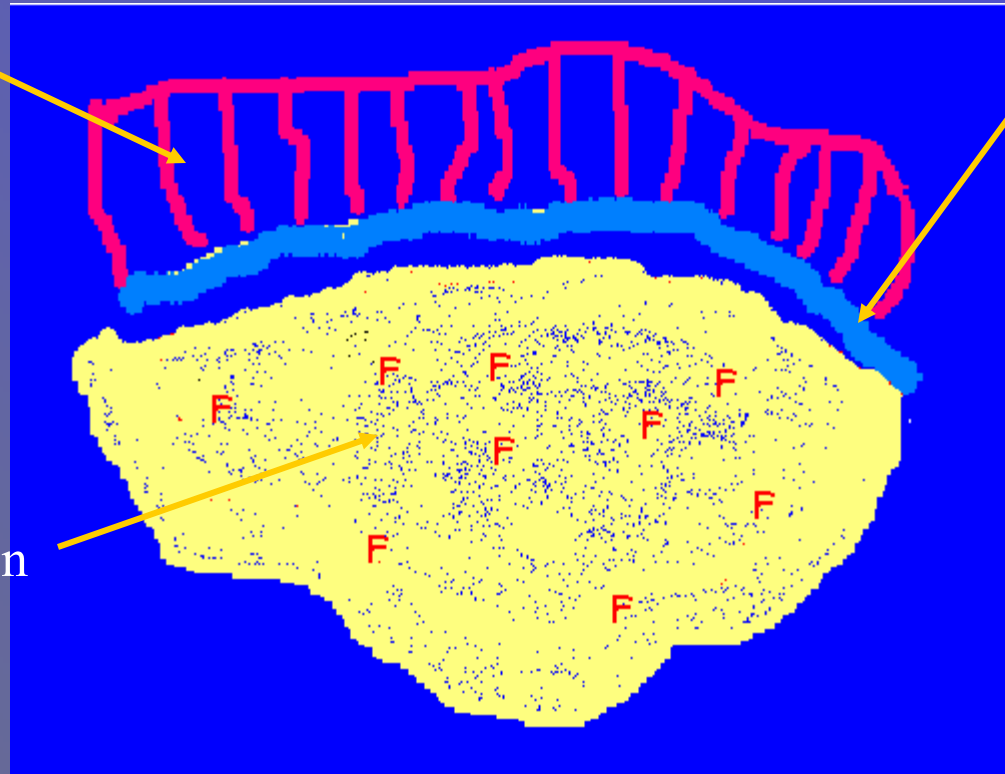


# Remineralization

Plaque

Intact enamel

Remineralization



# Baby Bottle Tooth Decay (Nursing Caries)



Mild

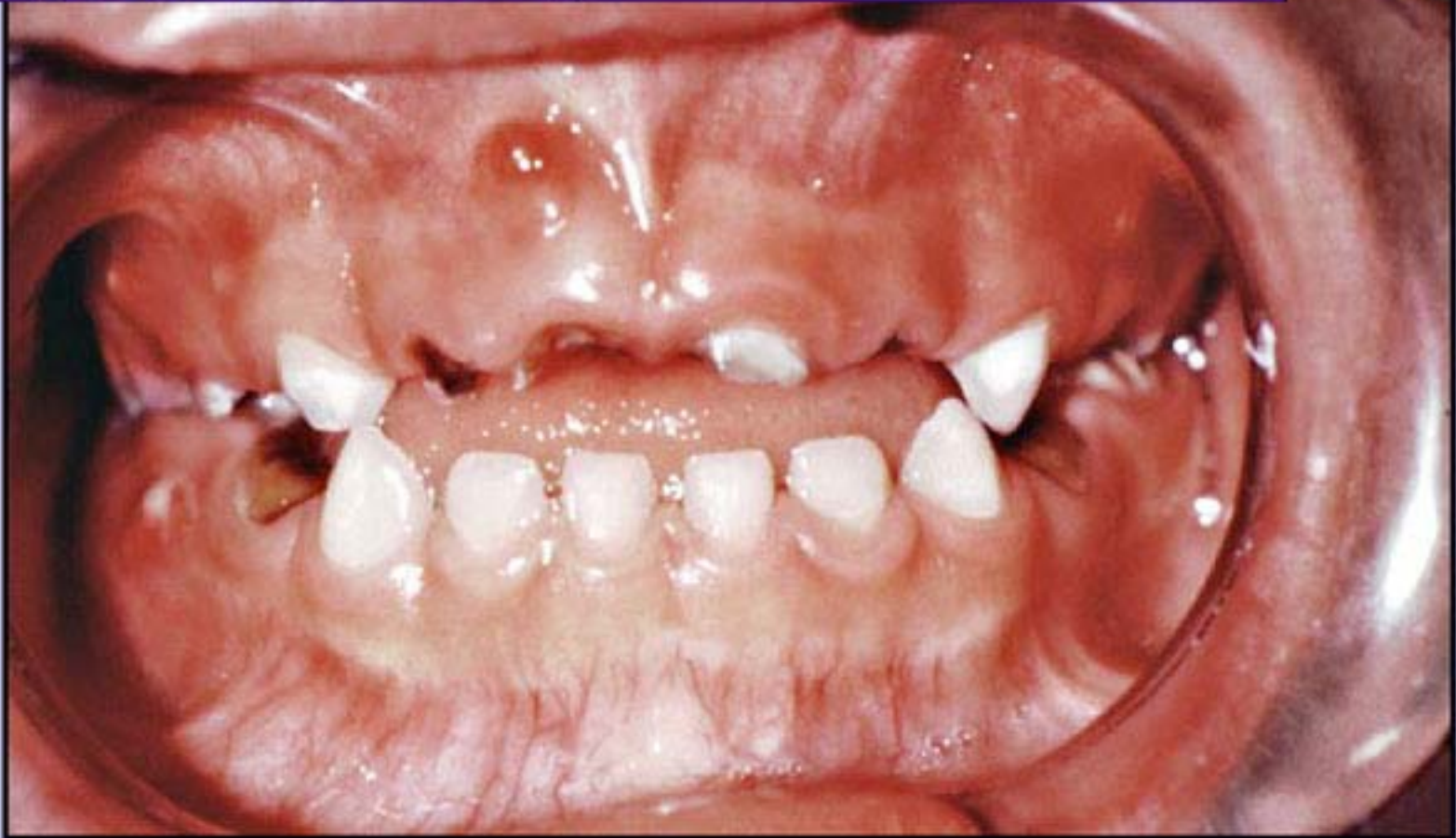
# Baby Bottle Tooth Decay (Nursing Caries)



Moderate



# Baby Bottle Tooth Decay (Nursing Caries)



Severe

Peter Milgrom DDS  
University of Washington, Seattle

# Caries Risk Analysis (young children)

- There is visible plaque on the teeth.
- There are cavities, white spots or enamel hypoplastic areas on the teeth.
- There is a history of decay in the family.
- The child is low birth weight or premature.

# Carries Risk Analysis

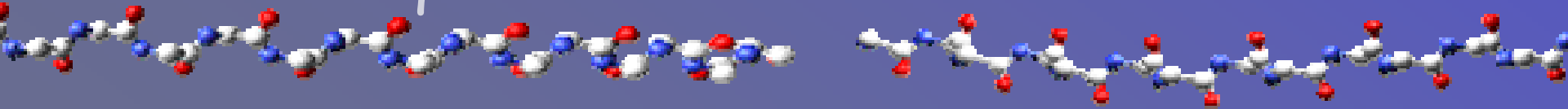
- Untreated cavities in last 2 yrs
- Orthodontics or removable partials
- Reduced salivary flow or medications that reduce saliva
- Frequency of carbohydrate intake
- Fluoride use

# What We Know

- Transmissibility
- Fluoride effectiveness
- Bacterial challenge
- Restoration
- And...

# Breaking the Chain

- Risk assessment
- Early detection
- Fluoride and other antibacterial therapy
- Sealants
- Minimally invasive restorative techniques





# ONGOING BALANCE

## Protective Factors

Salivary flow  
Proteins  
**Fluoride**



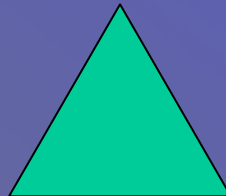
**No caries**

## Pathologic Factors

*Strep mutans*  
Carbohydrates  
Reduced salivary flow



**Caries**

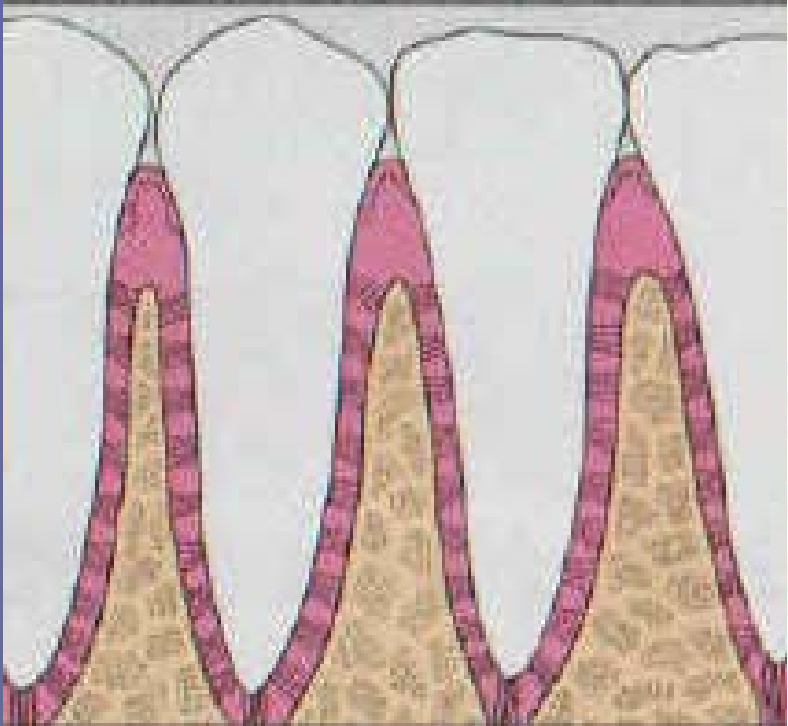


# Oral Health Disparities

- Tooth decay is the most prevalent chronic disease of childhood-5 times more frequent than asthma.
- 25% of children suffer 80% of all tooth decay.

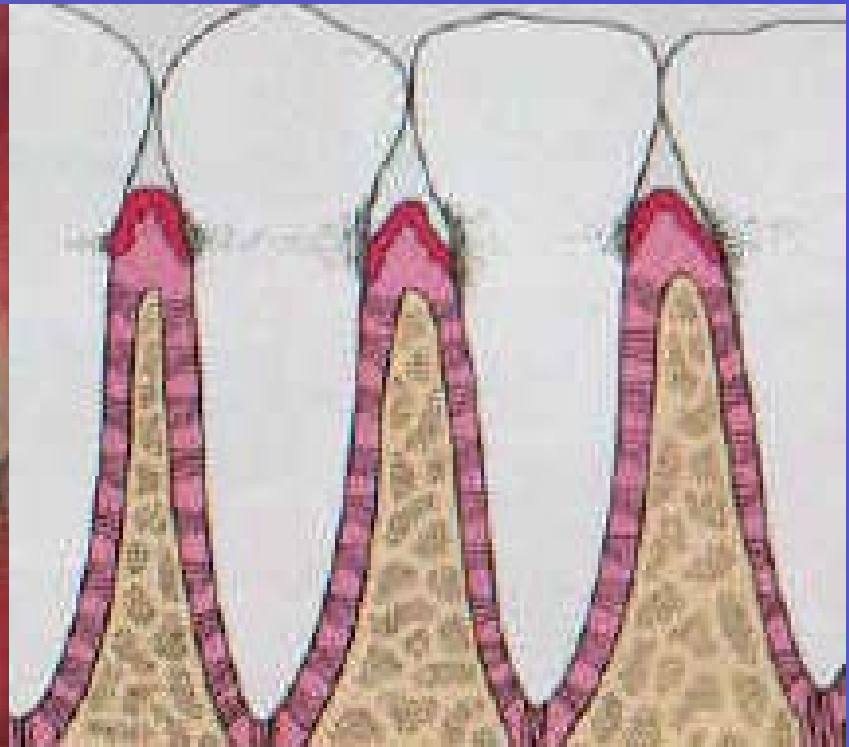
# Periodontal Disease

# Healthy Gums



[www.dentalgentlecare.com](http://www.dentalgentlecare.com)-Dr. Dan Peterson

# Gingivitis



# Periodontitis

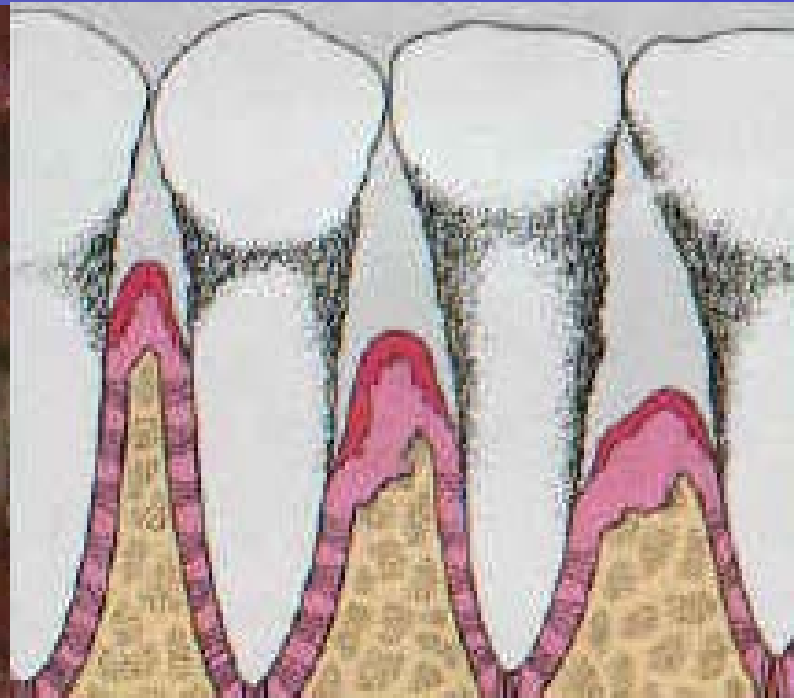


[www.dentalgentlecare.com](http://www.dentalgentlecare.com)-Dr. Dan Peterson

# Advanced Periodontitis



[www.dentalgentlecare.com](http://www.dentalgentlecare.com)-Dr. Dan Peterson



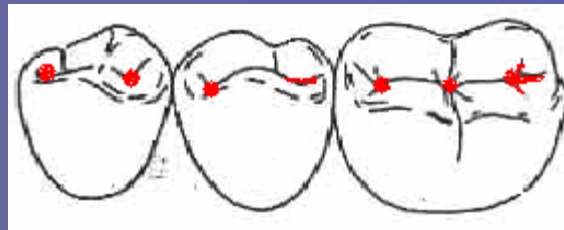
# Restoring Carious and Missing Teeth





# Black's Classification of Caries

- Class I.
  - Cavities occurring in pit and fissure defects in occlusal surfaces of bicuspids and molars, lingual surfaces of upper incisors, and facial and lingual grooves sometimes found on occlusal surfaces of molar teeth.

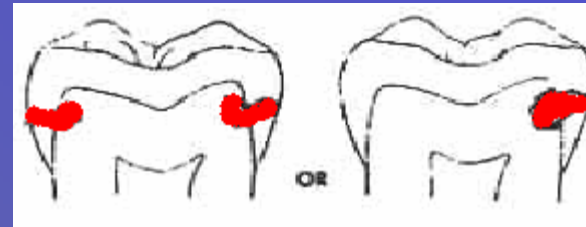


1

# Black's Classification of Caries, cont.

- Class II.

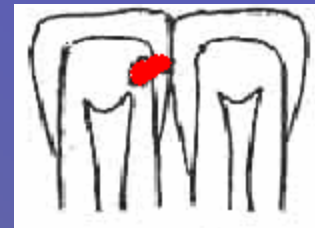
- Cavities in proximal surfaces of bicuspids and molars.



2

- Class III.

- Cavities in proximal surfaces of incisors and cuspids not requiring removal of incisal angle.



3

# Black's Classification of Caries, cont.

- Class IV.

- Cavities in proximal surfaces of incisors and cuspids that require removal of incisal angle.



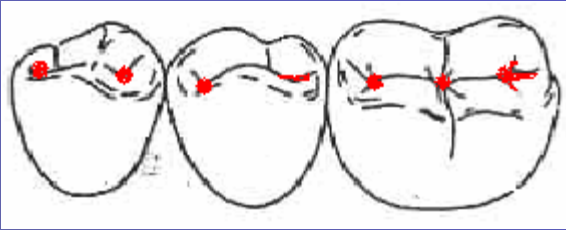
4

- Class V.

- Cavities in gingival third of labial, lingual, or buccal surfaces.



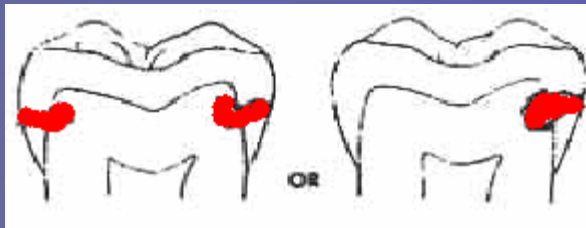
5



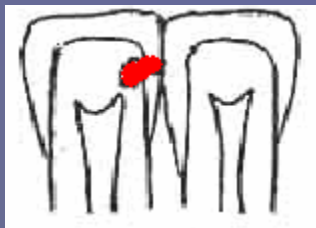
1



4



2



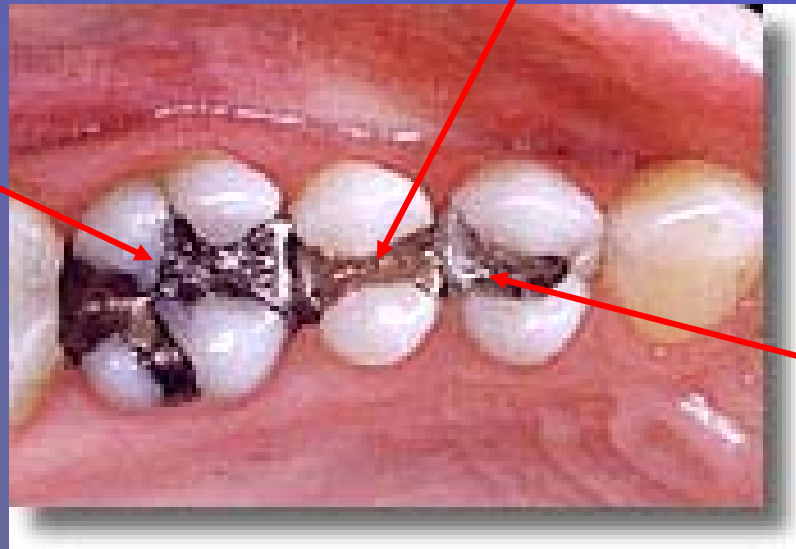
3



5

# Amalgam Fillings

MO/DOL



MOD

DO

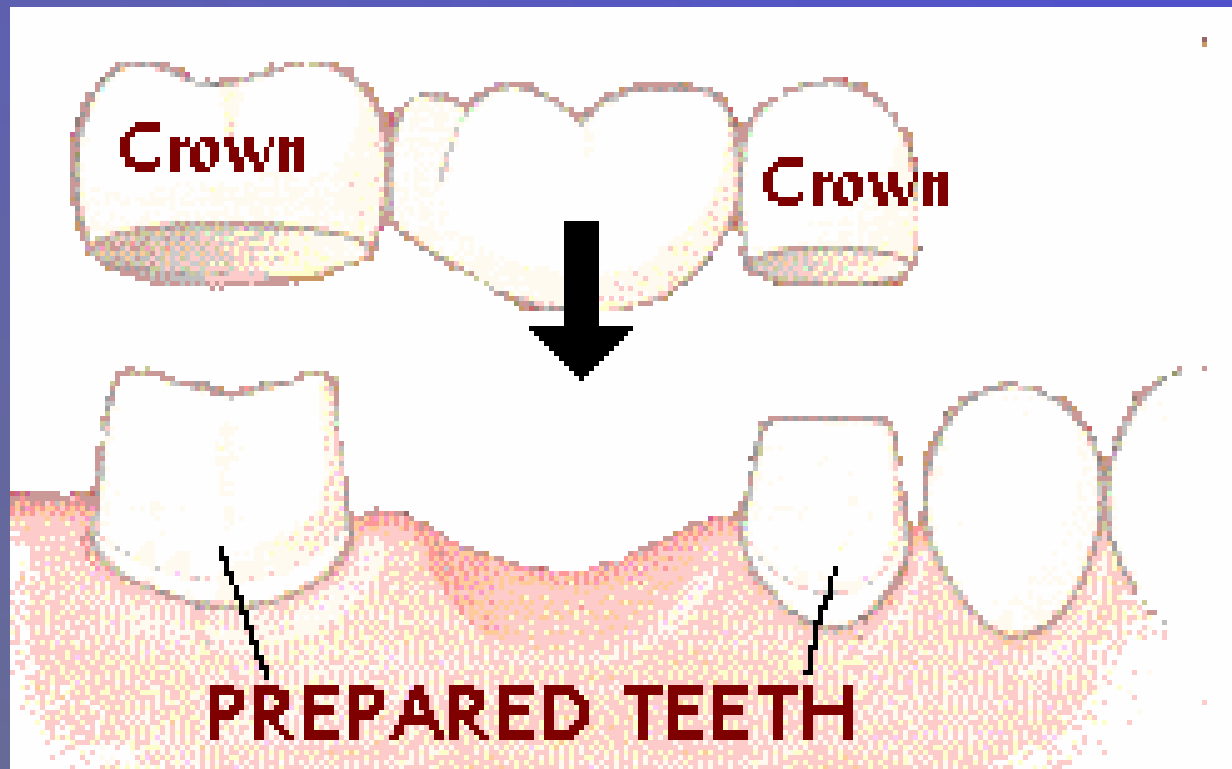
# Composite Fillings



# Crowns

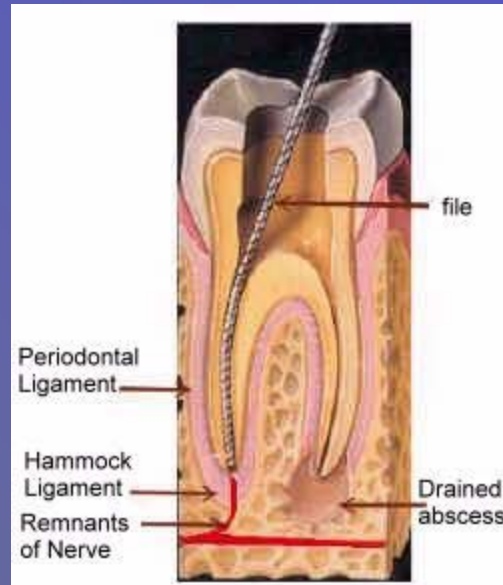


# Fixed Bridge





# Endodontics root canals



# Implants



# Partial Denture



# Denture



# Orthodontics



# Orthodontic Assessments

- <http://www.dent.ohio-state.edu/orthoresources/cd/index.htm>

[http://websrvr.dmas.virginia.gov/manuals/den/appendixf\\_de n.pdf](http://websrvr.dmas.virginia.gov/manuals/den/appendixf_de n.pdf). Salzman Index

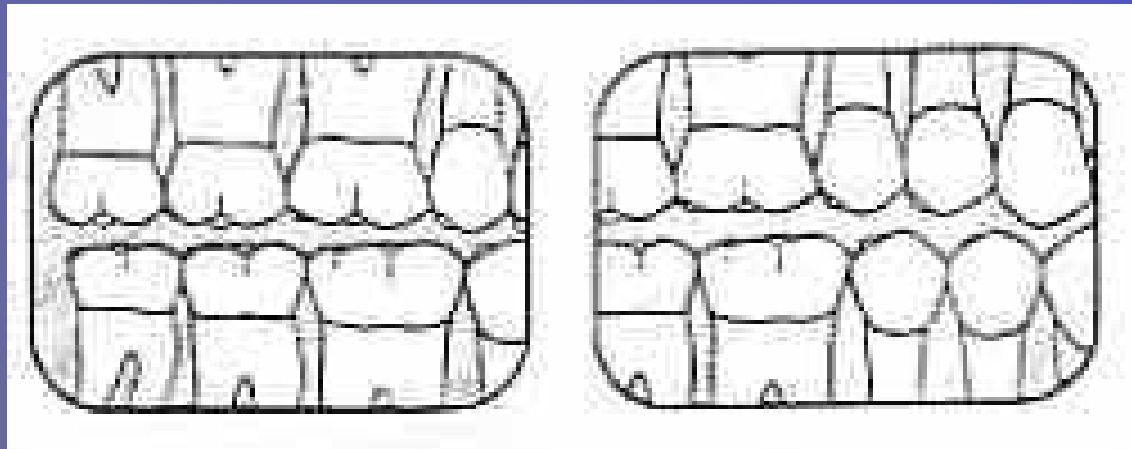
- Ohio:  
[http://emanuals.odjfs.state.oh.us/emanuals/medicaid/DEN/@ebt-link;cs=default;ts=default;pt=3790?target=IDMATCH\(ID,O DHS3630\);book=](http://emanuals.odjfs.state.oh.us/emanuals/medicaid/DEN/@ebt-link;cs=default;ts=default;pt=3790?target=IDMATCH(ID,O DHS3630);book=)

Diagnosis



# Bitewing X-Rays

Interproximal view of the coronal portion of the tooth

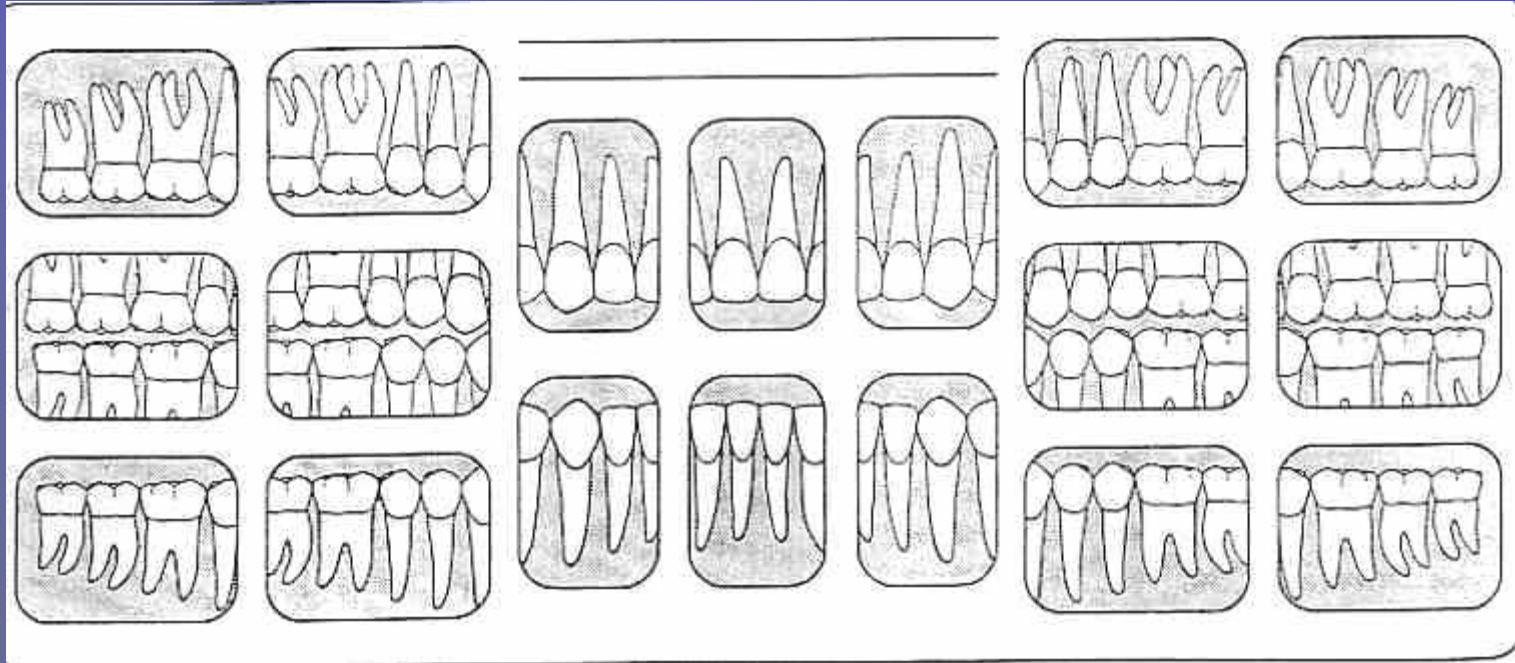




# Bitewing Xrays



# Full Mouth X-Rays



# Full Mouth Xrays



# Panorex



# Periapical Xrays



# Occlusal Xray



**Occlusal X-Ray**

# Summary-Radiographs

- Bitewing: cavity detecting
- Full mouth: pa's & bitewings
- Occlusal: palate & floor of the mouth
- Panorex: teeth & general area
- Periapical (PA): single film, shows root

# Transillumination

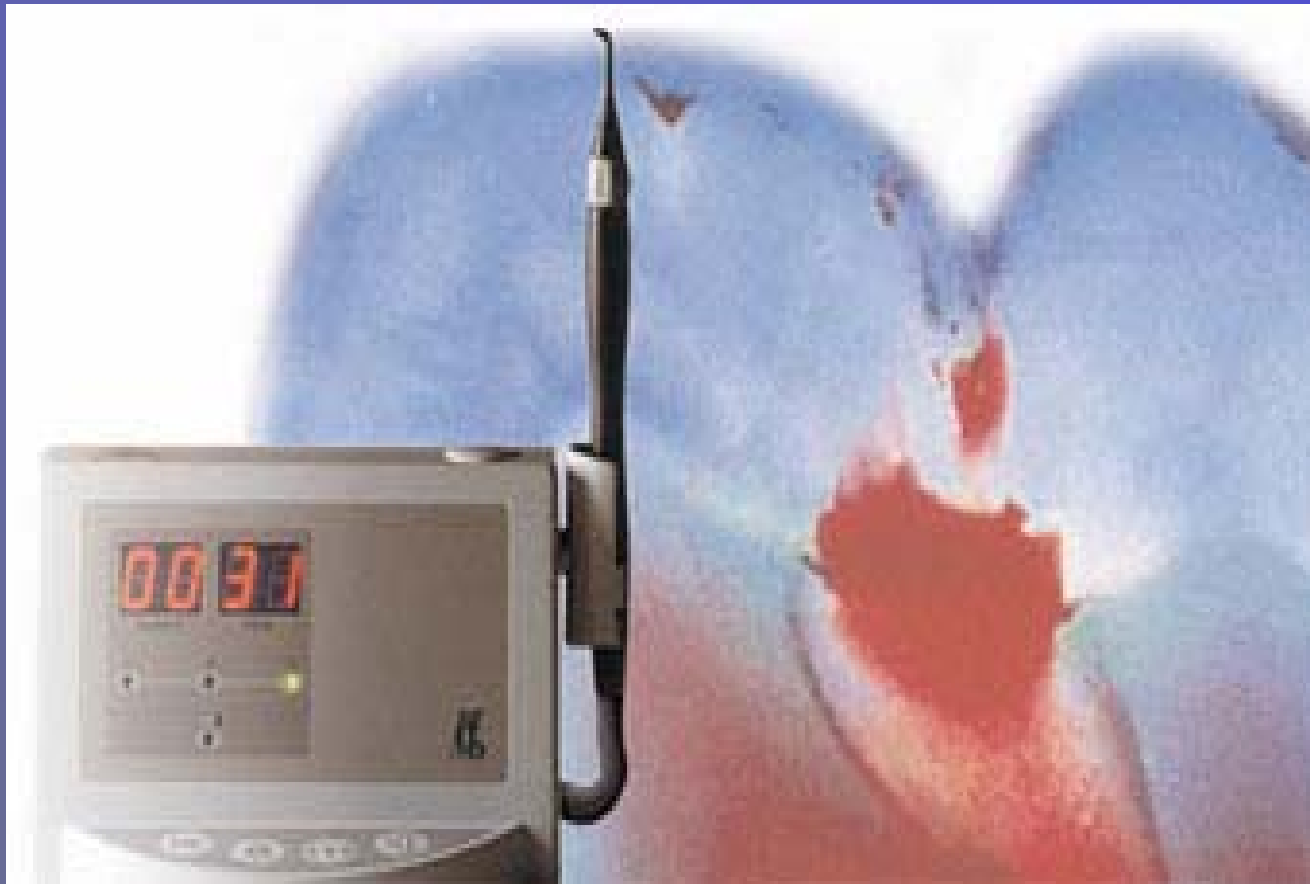
Transillumination enables you into see fractures, caries, subgingival calculus, root canal openings and more.

Transillumination is an easy, inexpensive and fast diagnostic tool you will soon find to be indispensable in your practice!

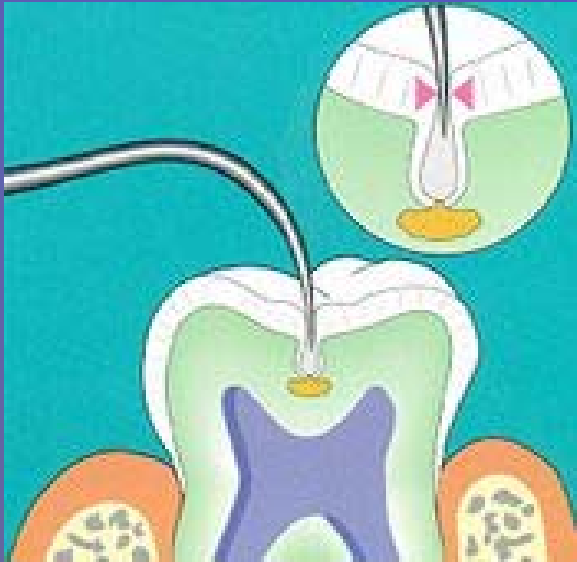




# Laser Fluorescence



# Diagnodent



DIAGNOdent has the great advantage of detecting caries in the very early stage by measuring the laser fluorescence within the tooth structure.

Precise results without x-ray exposure.





Dentists!...and the  
business of  
dentistry

# Dentist Specialty Boards

- Public Health
- Endodontics
- Oral and Maxillofacial Pathology
- Oral and Maxillofacial Radiology
- Oral and Maxillofacial Surgery
- Pedodontics
- Periodontics
- Prosthodontics
- Orthodontics

# Dental Specialties

- Endodontics: CDT-5 codes D3000-D3999, the treatment of the pulp and periapical tissues.
- Oral Surgery: CDT-5 codes D7000-D7999, the surgical treatment of the oral/facial region.
- Orthodontics: CDT-5 codes D8000-D8999, treatment related to the jaw, position of the teeth and the oral and facial muscles:
  - Concerned with function and appearance.

# Dental Specialties, Cont.

- Pediatrics: the treatment of children.
- Periodontics: CDT-5 codes D4000-D4999 treatment of diseases of the supporting structures of the teeth.
- Prosthodontics: extensive restorations of teeth using crowns, bridges and replacement of missing teeth:
  - Removable prosthodontics: CDT-5 codes D5000-D5899 restorations that can be removed.
  - Fixed prosthodontics: CDT-5 codes D2710-D2799 & D6200-D6999, are restorations that can not be removed (implant related).

# Who They Are

"General Dentist: is an individual who has successfully completed from a dental training leading to a DDS or DMD degree, which qualifies that individual to be licensed to accept the professional responsibility for the diagnosis, treatment management, and overall coordination of services that meet patients' oral health needs, and who has not announced a limitation of practice to any specialty areas recognized by the ADA."

# Who They Are (cont'd)

"Pediatric dentistry is an age-defined dental specialty that provides both primary and comprehensive preventive and therapeutic oral health care for infants and children through adolescence, including those with special health care needs.."



# Factoids

- 79% Graduates are general practitioners
- 21% Graduates are specialists
  - Pedodontists <3% practicing dentists
    - Provide approx. 30% of children's oral health care
    - Provide a disproportionate amount of care to children covered by Medicaid and SCHIP

# ADEA Dental Education at a Glance

Number of Dental Residents and Students (Total All Years)								
Dental Students	Dental Residents	Dental Hygiene Students	Dental Assisting Students	Dental Laboratory Technology Students				
17,800	5,257	14,522	9,725	609				
First-Year Students at U.S. Dental Schools								
2003	2002	2001	2000	1999	1998	1997	1996	1995
<b>4618</b>	4,448	4,407	4,327	4,314	4,268	4,347	4,255	4,237
Total Applicants to U.S. Dental Schools								
2003	2002	2001	2000	1999	1998	1997	1996	1995
Est. 7,987	7,537	7,412	7,770	9,010	9,447	9,829	8,872	NA
Graduates Per Year in the U.S. Dental Schools								
2003	2002	2001	2000	1999	1998	1997	1996	1995
<b>4443</b>	4,349	4,367	4,171	4,091	4,041	3,930	3,810	3,908
Numbers of Underrepresented Minorities in U.S. Dental Schools								
Black/African American			Hispanic/Latino			Native American/Alaska Native		
2003	2002	2001	2003	2002	2001	2003	2002	2001
972 (5.4%)	904 (5.1%)	854 (4.9%)	1,058 (5.9%)	1,066 (8%)	1,030 (5.9%)	77 (0.4%)	80 (0.4%)	74 (0.4%)

# Specialty Training

U.S. Accredited Dental Residency Training Programs and Stipends 2003*							
Programs	Total 1 <sup>st</sup> yr positions	1 <sup>st</sup> yr school-based positions		1 <sup>st</sup> yr hospital-based positions		Total Number of Residents	
726	2,838	1,415		1,423		5,257	
Accredited Residency Programs	Number of Programs		Total Number Residents		1 <sup>st</sup> year Average Tuition	1 <sup>st</sup> year Average Stipend	Average Length (Months)
	School	Hospital	School	Hospital			
Dental Public Health	10	6	33	10	\$7,765	\$24,807	15
Endodontics	42	9	362	44	\$14,340	\$15,586	25
General Dentistry AEGD	45	50	311	354	\$358	\$31,664	13
General Practice Residency	27	177	148	894	\$458	\$37,772	13
Oral Maxillofacial (OM) Surgery	43	58	452	431	\$3,273	\$35,748	54
OM Pathology	7	5	17	14	\$7,610	\$17,559	37
OM Radiology	4	0	13	0	\$11,804	\$8,915	30
Orthodontics/Dentofacial Orthopedics	49	9	627	109	\$15,413	\$13,502	29
<b>Pediatric</b>	38	26	<b>368</b>	<b>141</b>	\$7,256	\$30,713	25
Periodontics	43	9	453	54	\$12,676	\$16,315	35
Prosthodontics (all types)	46	17	354	61	\$9,794	\$20,357	31
Clinical Fellowship	0	6	0	7			
<b>Totals</b>	<b>354</b>	<b>372</b>	<b>3,138</b>	<b>2,119</b>			

\*Source: 2002/2003 Survey of Advanced Dental Education, American Dental Association

**Table 1: Dental Specialties in Minnesota**

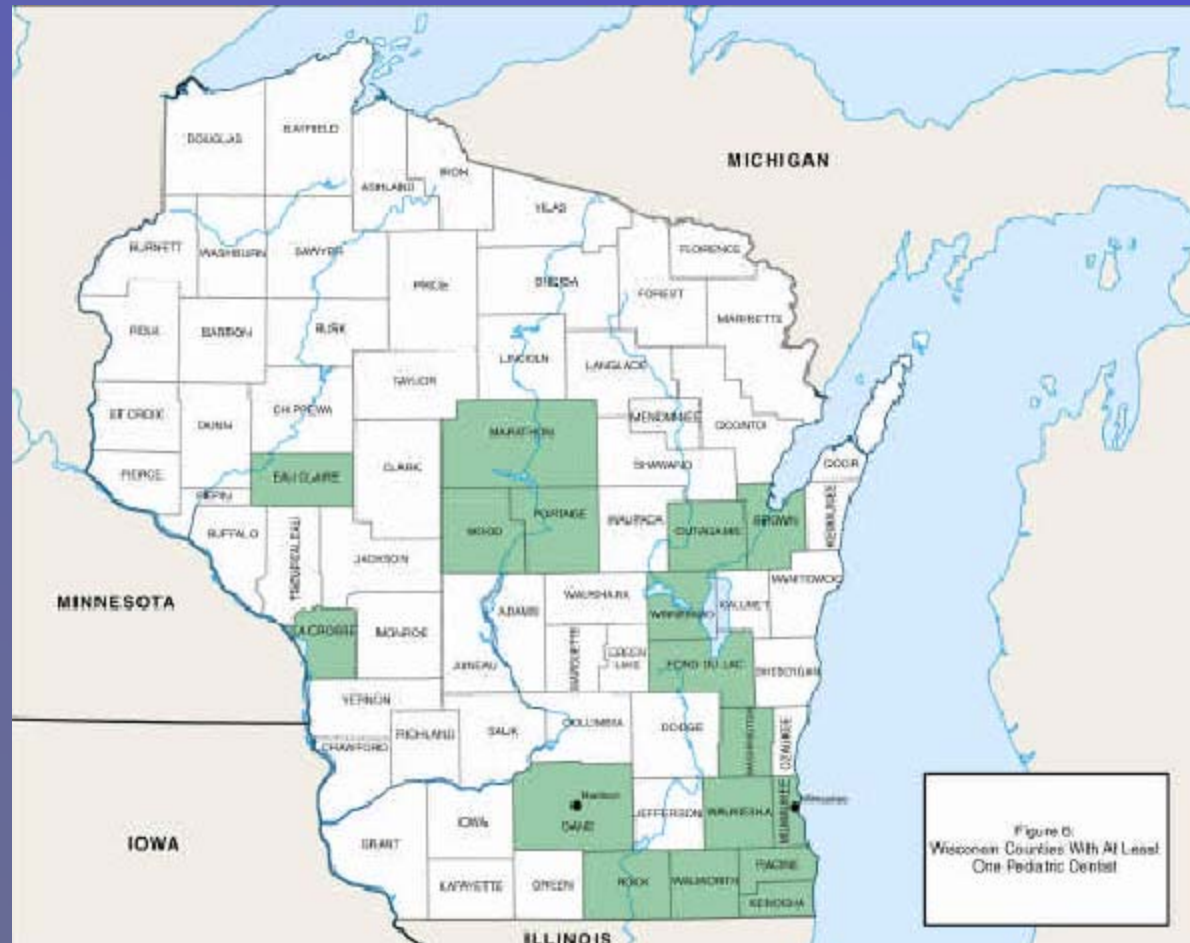
<b>Specialty</b>	<b>Percent</b>	<b>Responsibility</b>
General Dentistry	79.7%	Diagnoses and treats teeth and gums
Orthodontist	6.2%	Straightens teeth
Oral and Maxillofacial Surgeon	3.3%	Operates on mouth and jaws
Endodontist	2.1%	Provides root canal therapy
Pediatric Dentist	2.0%	Diagnoses and treats children
Prosthodontist	1.8%	Makes artificial teeth and dentures
Periodontist	1.6%	Treats gums and bone
Public Health Dentists	0.4%	Prevents and controls dental disease through community-wide efforts
Oral Pathologist	0.3%	Studies oral diseases
Other	2.6%	Not previously listed

*Source: Dentist Survey, Minnesota Health Services Personnel Survey, 2001.*

# Dental Specialists in Kansas, 2000

Endodontics	22	1.7%
General Dentistry	1,075	84.7%
Orthodontics	68	5.4%
Oral Surgery	46	3.6%
Pediatrics	21	1.7%
Public Health	0	0.0%
Periodontics	29	2.3%
Prosthodontics	8	0.6%
Teaching	0	0.0%
Dentist Total	1,269	100.0%

# Wisconsin Counties with at Least One Pediatric Dentist



# HIPAA Impact

- Standardized code sets (CDT5)
- Standardized electronic billing (837d)
- Movement towards standardized paper claim (ADA2002)

# CDT Coding

"Current Dental terminology, fifth edition (CDT-5)...is effective for services provided on or after January 1, 2005...has been designated as the national standard for reporting dental services by the Federal Government under HIPAA..."



# CDT Coding

- Diagnostic D0100-D0099
- Preventive D1000-D1999
- Restorative D2000-D2999
- Endodontics D3000-D3999
- Periodontics D4000-D4999
- Prosthetics Removable D5000-D5899
- Maxillofacial Prosthetics D5900-D5999
- Implant services D6000-D6199
- Prosthodontics, fixed D6200-D6999
- Oral and maxillofacial surgery D7000-D7999
- Orthodontics D8000-D8999
- Adjunctive General Services D9000-D9999

**ADA Dental Claim Form**

<b>HEADER INFORMATION</b>																																																																											
1. Type of Transaction (Check all applicable boxes) <input type="checkbox"/> Statement of Actual Services - OR - <input type="checkbox"/> Request for Predetermination/Preauthorization <input type="checkbox"/> EPSDT/Title XIX																																																																											
2. Predetermination/Preauthorization Number																																																																											
<b>PRIMARY PAYER INFORMATION</b>																																																																											
3. Name, Address, City, State, Zip Code  Delta Dental Plan of New Jersey PO Box 222 Parsippany, NJ 07054																																																																											
<b>OTHER COVERAGE</b>																																																																											
4. Other Dental or Medical Coverage? <input type="checkbox"/> No (Skip 5-11) <input type="checkbox"/> Yes (Complete 5-11)																																																																											
5. Subscriber Name (Last, First, Middle Initial, Suffix)																																																																											
6. Date of Birth (MM/DD/CCYY)		7. Gender <input type="checkbox"/> M <input type="checkbox"/> F		8. Subscriber Identifier (SSN or ID#)																																																																							
9. Plan/Group Number				10. Relationship to Primary Subscriber (Check applicable box) <input type="checkbox"/> Self <input type="checkbox"/> Spouse <input type="checkbox"/> Dependent <input type="checkbox"/> Other																																																																							
11. Other Carrier Name, Address, City, State, Zip Code																																																																											
<b>PRIMARY SUBSCRIBER INFORMATION</b>																																																																											
12. Name (Last, First, Middle Initial, Suffix), Address, City, State, Zip Code																																																																											
13. Date of Birth (MM/DD/CCYY)				14. Gender <input type="checkbox"/> M <input type="checkbox"/> F		15. Subscriber Identifier (SSN or ID#)																																																																					
16. Plan/Group Number				17. Employer Name																																																																							
<b>PATIENT INFORMATION</b>																																																																											
18. Relationship to Primary Subscriber (Check applicable box) <input type="checkbox"/> Self <input type="checkbox"/> Spouse <input type="checkbox"/> Dependent Child <input type="checkbox"/> Other								19. Student Status <input type="checkbox"/> FTS <input type="checkbox"/> PTS																																																																			
20. Name (Last, First, Middle Initial, Suffix), Address, City, State, Zip Code																																																																											
21. Date of Birth (MM/DD/CCYY)				22. Gender <input type="checkbox"/> M <input type="checkbox"/> F		23. Patient ID/Account # (Assigned by Dentist)																																																																					
<b>RECORD OF SERVICES PROVIDED</b>																																																																											
	24. Procedure Date (MM/DD/CCYY)	25. Area of Oral Cavity	26. Tooth System	27. Tooth Number(s) or Letter(s)	28. Tooth Surface	29. Procedure Code	30. Description			31. Fee																																																																	
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<b>MISSING TEETH INFORMATION</b>																																																																											
34. (Place an 'X' on each missing tooth)																																																																											
<table border="1" style="width:100%; border-collapse: collapse; text-align: center;"> <tr> <td colspan="16">Permanent</td> <td colspan="12">Primary</td> <td colspan="1">32. Other Fee(s)</td> </tr> <tr> <td>1</td><td>2</td><td>3</td><td>4</td><td>5</td><td>6</td><td>7</td><td>8</td><td>9</td><td>10</td><td>11</td><td>12</td><td>13</td><td>14</td><td>15</td><td>16</td> <td>A</td><td>B</td><td>C</td><td>D</td><td>E</td><td>F</td><td>G</td><td>H</td><td>I</td><td>J</td><td>K</td><td>L</td><td>M</td><td>N</td><td>O</td><td>P</td><td>Q</td><td>R</td><td>S</td><td>T</td><td>33. Total Fee</td> </tr> </table>										Permanent																Primary												32. Other Fee(s)	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	33. Total Fee
Permanent																Primary												32. Other Fee(s)																																															
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35. Remarks																																																																											
<b>AUTHORIZATIONS</b>																																																																											
36. I have been informed of the treatment plan and associated fees. I agree to be responsible for all charges for dental services and materials not paid by my dental benefit plan, unless prohibited by law, or the treating dentist or dental practice has a contractual agreement with my plan prohibiting all or a portion of such charges. To the extent permitted by law, I consent to your use and disclosure of my protected health information to carry out payment activities in connection with this claim.  X _____ Patient/Guardian signature Date																																																																											
37. I hereby authorize and direct payment of the dental benefits otherwise payable to me, directly to the below named dentist or dental entity.  X _____ Subscriber signature Date																																																																											
<b>ANCILLARY CLAIM/TREATMENT INFORMATION</b>																																																																											
38. Place of Treatment (Check applicable box) <input type="checkbox"/> Provider's Office <input type="checkbox"/> Hospital <input type="checkbox"/> ECF <input type="checkbox"/> Other						39. Number of Enclosures (00 to 99) Radiographs: <input type="checkbox"/> Oral Images: <input type="checkbox"/> Models: <input type="checkbox"/>																																																																					
40. Is Treatment for Orthodontics? <input type="checkbox"/> No (Skip 41-42) <input type="checkbox"/> Yes (Complete 41-42)						41. Date Appliance Placed (MM/DD/CCYY)																																																																					
42. Months of Treatment Remaining <input type="checkbox"/> No <input type="checkbox"/> Yes (Complete 44)						43. Replacement of Prosthesis? <input type="checkbox"/> No <input type="checkbox"/> Yes (Complete 44)																																																																					
44. Date Prior Placement (MM/DD/CCYY)						45. Treatment Resulting from (Check applicable box) <input type="checkbox"/> Occupational illness/injury <input type="checkbox"/> Auto accident <input type="checkbox"/> Other accident																																																																					
46. Date of Accident (MM/DD/CCYY)						47. Auto Accident State																																																																					
<b>BILLING DENTIST OR DENTAL ENTITY</b> (Leave blank if dentist or dental entity is not submitting claim on behalf of the patient or insured/subscriber)																																																																											
48. Name, Address, City, State, Zip Code																																																																											
49. Provider ID																																																																											
50. License Number					51. SSN or TIN																																																																						
52. Phone Number ( ) -																																																																											
<b>TREATING DENTIST AND TREATMENT LOCATION INFORMATION</b>																																																																											
53. I hereby certify that the procedures as indicated by date are in progress (for procedures that require multiple visits) or have been completed and that the fees submitted are the actual fees I have charged and intend to collect for those procedures.  X _____ Signed (Treating Dentist) Date																																																																											
54. Provider ID					55. License Number																																																																						
56. Address, City, State, Zip Code																																																																											
57. Phone Number ( ) -																																																																											
58. Treating Provider Specialty																																																																											

**Dental Claim Form**  
©American Dental Association, 1999 version 2000

1. <input type="checkbox"/> Dentist's pre-treatment estimate <input type="checkbox"/> Dentist's statement of actual services		Specialty (see backside)		3. Carrier Name Trigon BlueCross BlueShield - Dental Administrative Offices			
2. <input type="checkbox"/> Medicaid Claim <input type="checkbox"/> EPSDT		Price Authorization #		4. Carrier Address 555 Middle Creek Parkway - Mail Stop 425			
				5. City Colorado Springs		6. State CO	7. Zip 80921-3654

PATIENT	8. Patient Name (Last, First, Middle)			9. Address			10. City		11. State
	12. Date of Birth (MM/DD/YYYY)		13. Patient ID #		14. Sex <input type="checkbox"/> M <input type="checkbox"/> F		15. Phone Number ( )		16. Zip Code
	17. Relationship to Subscriber/Employer: <input type="checkbox"/> Self <input type="checkbox"/> Spouse <input type="checkbox"/> Child <input type="checkbox"/> Other							18. Employer/School Name: _____ Address: _____	

SUBSCRIBER/EMPLOYEE	19. Subs. Emp. ID#/SSN#		20. Employer Name		21. Group #		31. Is Patient covered by another plan <input type="checkbox"/> No (Skip 32-37) <input type="checkbox"/> Yes: <input type="checkbox"/> Dental or <input type="checkbox"/> Medical		32. Policy #	
	22. Subscriber/Employer Name (Last, First, Middle)									
	23. Address									
	24. Phone Number ( )			25. City			26. State		27. Zip Code	
	28. Date of Birth (MM/DD/YYYY)			29. Marital Status <input type="checkbox"/> Married <input type="checkbox"/> Single <input type="checkbox"/> Other			30. Sex <input type="checkbox"/> M <input type="checkbox"/> F		33. Other Subscriber's Name	
	34. Date of Birth (MM/DD/YYYY)									
	35. Sex <input type="checkbox"/> M <input type="checkbox"/> F			36. Plan/Program Name			37. Employer/School Name: _____ Address: _____			
38. Subscriber/Employer Status <input type="checkbox"/> Employed <input type="checkbox"/> Part-time Status <input type="checkbox"/> Full-time Student <input type="checkbox"/> Part-time Student										
39. I have been informed of the treatment plan and associated fees. I agree to be responsible for all changes for dental services and materials not paid by my dental benefit plan, unless the treating dentist or dental practice has a contractual agreement with my plan prohibiting all or a portion of such changes. To the extent permitted under applicable law, I authorize release of any information relating to this claim.										
40. Employer/School Name: _____ Address: _____										
41. I hereby authorize payment of the dental benefits otherwise payable to me directly to the below named dental entity.										
X _____ Signed (Patient/Guardian) _____ Date (MM/DD/YYYY) _____					X _____ Signed (Employee/Subscriber) _____ Date (MM/DD/YYYY) _____					

BILLING DENTIST	42. Name of Billing Dentist or Dental Entity			43. Phone Number ( )		44. Provider ID #		45. Dentist Soc. Sec. or I.D.#	
	46. Address			47. Dentist License #		48. First visit date of current series:		49. Place of treatment <input type="checkbox"/> Office <input type="checkbox"/> Hosp. <input type="checkbox"/> ECF <input type="checkbox"/> Other	
	50. City		51. State	52. Zip Code		53. Radiographs or models enclosed? <input type="checkbox"/> Yes, How many? _____ <input type="checkbox"/> No		54. Is treatment for orthodontics? <input type="checkbox"/> Yes <input type="checkbox"/> No If service already commenced:	
	55. If prosthesis (crown, bridge, dentures), is this initial placement? <input type="checkbox"/> Yes <input type="checkbox"/> No						Date of prior placement:	Date appliances placed:	Total nos. of treatment remaining:
	56. Is treatment result of occupational illness or injury? <input type="checkbox"/> No <input type="checkbox"/> Yes Brief description and dates:						57. Is treatment result of: <input type="checkbox"/> auto accident? <input type="checkbox"/> other accident? <input type="checkbox"/> neither Brief description and dates:		

58. Diagnosis Code Index (optional) 1. _____ 2. _____ 3. _____ 4. _____ 5. _____ 6. _____ 7. _____ 8. _____																										
59. Examination and treatment plans - List teeth in order																										
Date (MM/DD/YYYY)	Tooth	Surface	Diagnosis Index #	Procedure Code	Qty	Description	Fees	Admin. Use Only																		
60. Identify all missing teeth with X																										
Permanent					Primary					Total Fees																
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	A	B	C	D	E	F	G	H	I	J	Payment by other plan
32	31	30	29	28	27	26	25	24	23	22	21	20	19	18	17	T	S	R	Q	P	O	N	M	L	K	Max. Allowable
61. Remarks for unusual services										Deductible																
										Carrier %																
										Carrier pays																
										Patient pays																

62. I hereby certify that the procedures as indicated by date are in progress (for procedures that require multiple visits) or have been completed and that the fees submitted are the actual fees I have charged and intend to collect for those procedures. X _____ Signed (Treating Dentist) _____ License # _____ Date (MM/DD/YYYY) _____						63. Address where treatment was performed			
						64. City		65. State	66. Zip Code

# Dental Practice

- Solo/start-up
- Associate
- Income

# Start-up Costs-MN

**Table 3: Private Practice Start-Up Costs**

Type of Expense	“Scratch Practice” (Costs in Thousands)*	Existing Practice (Costs in Thousands)*
Office Space	\$120 - \$180	50 – 65% of annual gross revenues depending on practice size and location.
Operatory Equipment	\$60 - \$120	
Computer, Lab, and Office Supplies	\$30- \$50	
<b>Totals</b>	<b>\$210 - \$350</b>	<b>\$160 - \$320</b>

*\*Costs are approximate average values based on estimations from Shea Practice Transitions, P.A. and calculated from an average gross revenue of \$320,000 for general practitioners and \$490,000 for specialists. A “Scratch Practice” is a practice built from the ground up rather than from a previously existing practice. It is likely that in some rural areas costs of establishing a start-up practice could be much lower depending on the location in the state and whether the practice is set up in space leased from an office building or in a building owned by the dentist.*

# Associate

## General Compensation Formula (Production Based)

### Gross Production

- Adjustments
- Uncollectibles (Charge Back)

### Collections

- Lab Charges
- ((Professional expenses))

### Income Produced

- Apply percentage (30% - 35%)
- Professional expenses))

### Net (Spendable) Income (before taxes)

# Associate-Let's add the numbers

Assume salary based on 30% of collections

Assume 95% collection rate

Assume 10+ percent lab fee rate

# Associate-Let's add the numbers

- If salary desired is \$100,000
- Then \$315,000 needed assuming 95% collection.
- Add \$35,000 to accommodate lab fees.
- Total production of \$350,000 = \$100,000 salary



# Dental School Debt

Average Debt of all  
Students upon Graduation

All Dental Schools  
Public \$ 93,622

Private/State  
related \$147,950

Aver Debt of Students with  
Debt upon Graduation

All Dental Schools  
Public \$103,149

Private/State  
related \$167,676

# Medical School Debt

Mean Level of Educational debt  
for medical school graduates in  
2002

- 19% of medical students had no debt
- \$91,389 for public schools
- \$123,780 for private schools

# Dentist/Physician Income Comparison

On average, general dentists in 2000, the most recent year for which comparative data are available, earned \$166,460...

Wall Street Journal April 05:Careers

# Dentist/Physician Income Comparison

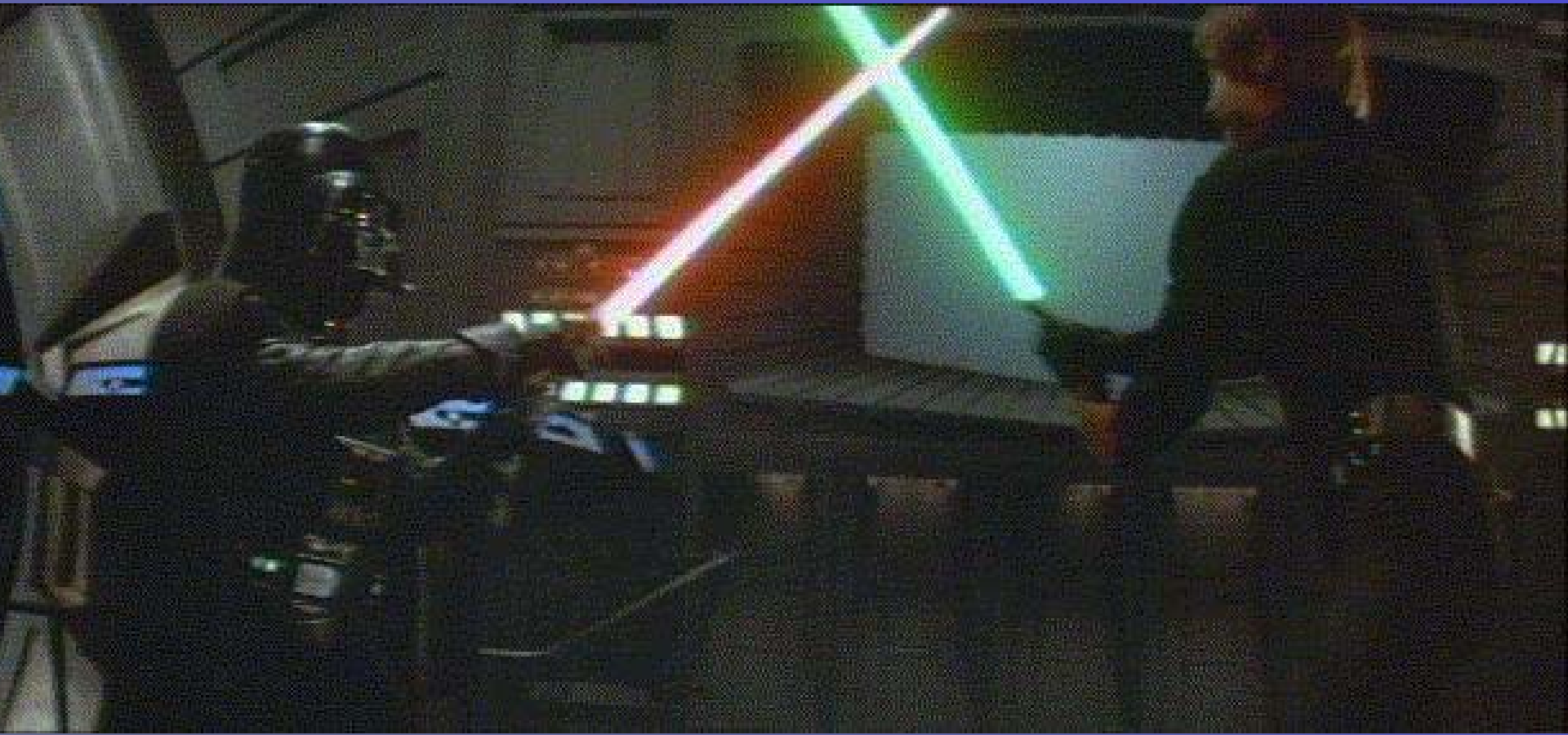
- compared with \$164,100 for general internal-medicine doctors, \$145,700 for psychiatrists, \$144,700 for family-practice physicians, and \$137,800 for pediatricians. All indications are that dentists have at least kept pace with physicians since then...

# Dentist/Physician Income Comparison

ADA estimates work hour per week  
for dentists approximately 40 hours

AMA estimates work hour per week  
for physicians 50-55

Income difference is understated



# Policy Drivers-The Dark Side



- Pay
- Paperwork
- Patients

# Policy Drivers-The Dark Side



- Pay
  - percent
  - percentile
  - capitation
  - co-pays
  - coverage



# Policy Drivers-The Dark Side

- Paperwork
  - prior authorization
  - claims
  - coverage



# Policy Drivers-The Dark Side

- Patients
  - attendance
  - compliance
  - complicated



# Policy Drivers-The Dark Side-one days schedule



- 12 scheduled, 2 no-shows
- 10 smokers
- 8 taking more than 1 medication
- 2 not taking scheduled medication
- 1 drug seekers

# Policy Drivers-The Dark Side



- Dental offices are single owner or small group
- May not have dedicated billing staff/paper shops?

# Policy Drivers-The Dark Side

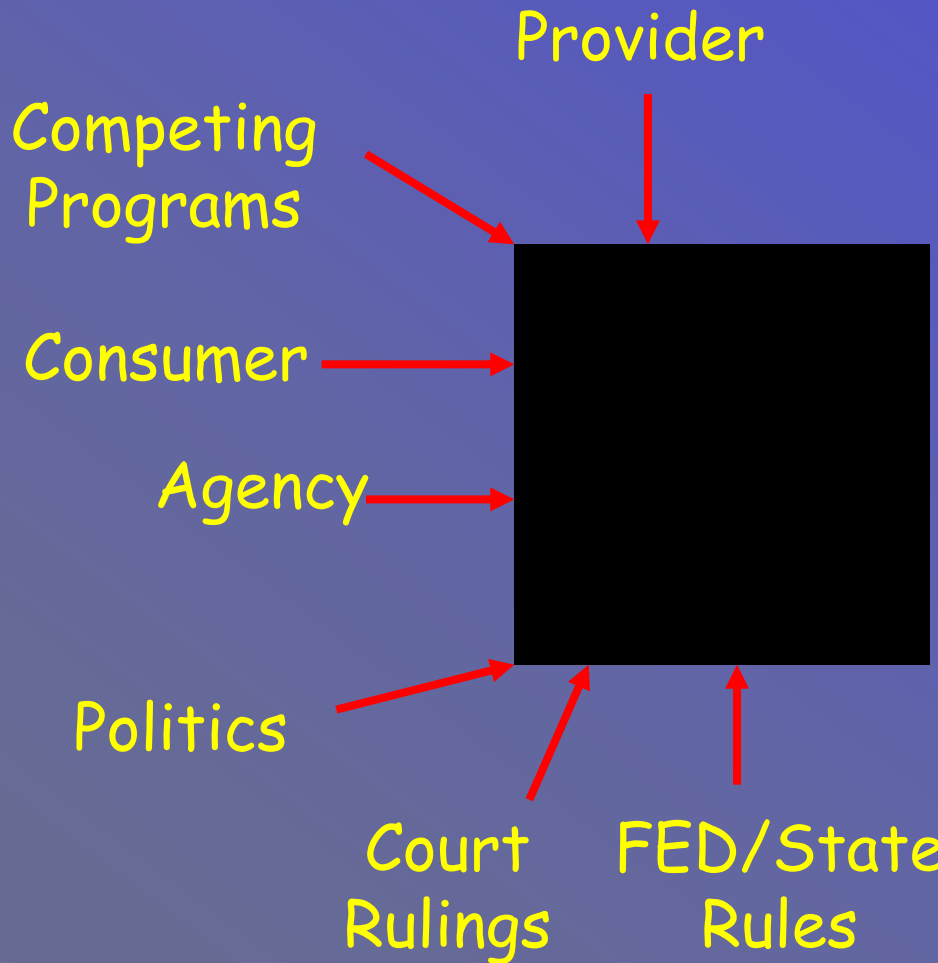


- Service insurance with limited and very defined benefits
- May be cash only business
- Poor electronic interface between office and claims processor

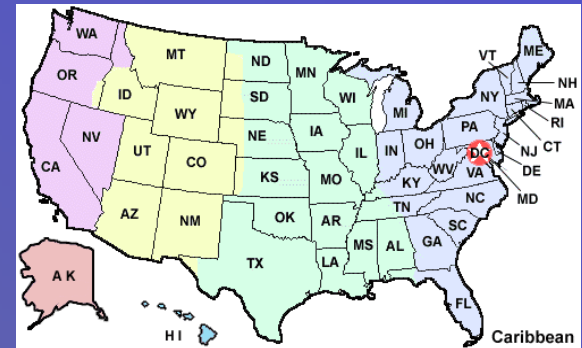
# Policy Drivers

- Existing policy
- Budget constraints
- Political drivers-Governor/legislature
- Fraud and Audit

# Reimbursement



All over the map



=

Fraud/Audit



# Upcoding

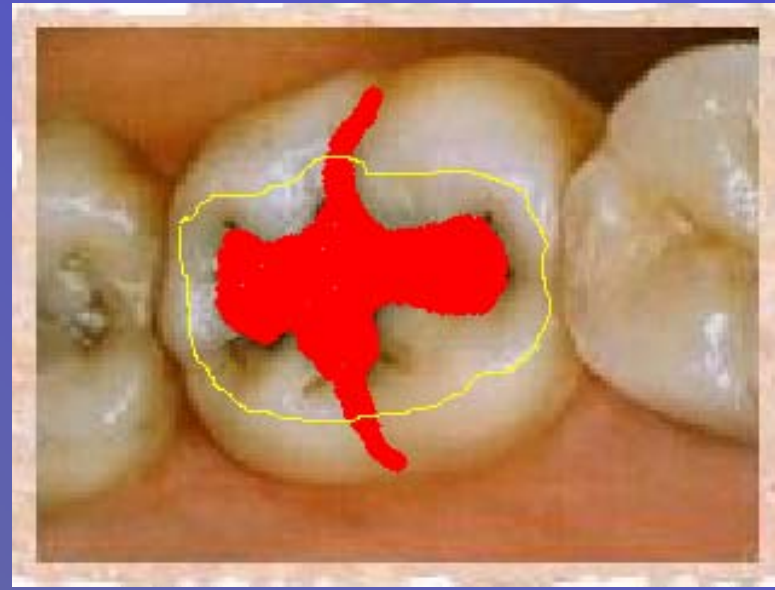
- D7140-extraction, erupted tooth or exposed root (elevation and/or forceps removal).
- Wisconsin fee \$39.37
- D7210-surgical removal of erupted tooth requiring elevation of mucoperiosteal flap and removal of bone and/or section of tooth. Includes cutting of gingiva and bone, removal of tooth structure and closure.
- Wisconsin Fee \$85.54

# Upcoding



Occlusal-Billed as OBL

D2140-\$32.75



Actual OBL

D2160-\$52.67

# Avoid Fraud

- Evaluating mobile providers of nursing-home dental care
  - Appropriate services for elderly or edentulous patients compared to services delivered
  - Approximate time required to perform patient care - to compare workload and claims volume

# Avoid Fraud

- Clear Policy
- Objective guidelines/handbook
  - Measurable clinical data
    - » x-rays, crown root ratios, clinical notes
- Clinical audits
- Post-pay audit

# Policy Drivers

## Existing Thought

- The traditional treatment is repair of the damage produced by the disease without identification of the causative agent. We are only treating the **terminal** end of the disease!

# Policy Drivers

- Evidenced base
- Outcome based
- Disease management
- Clinical and utilization data

**Smoking**

**Stroke**

**Lung Disease**

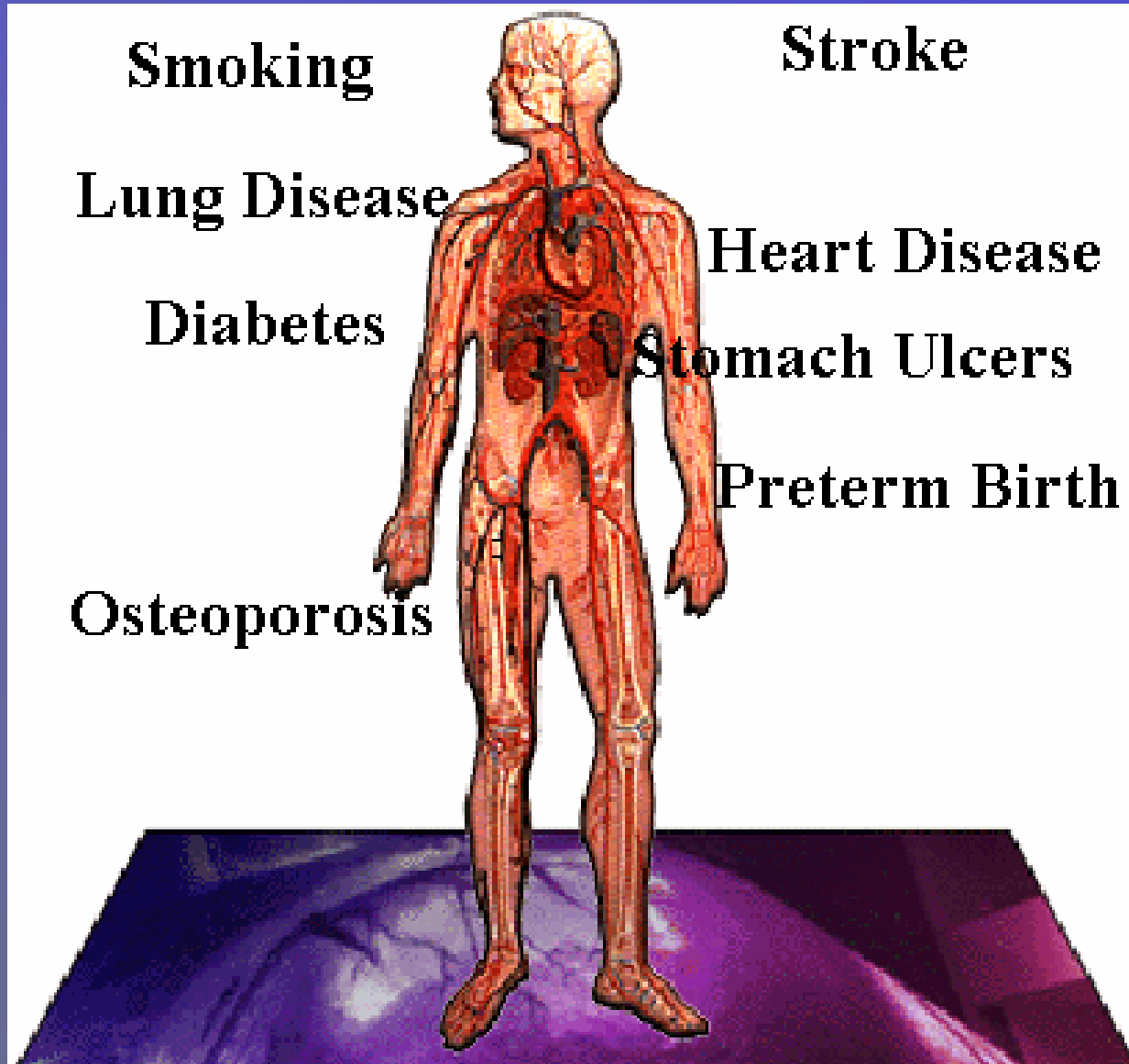
**Heart Disease**

**Diabetes**

**Stomach Ulcers**

**Preterm Birth**

**Osteoporosis**



# Examples of Use of Basic Clinical Knowledge in Policymaking

- Reimbursing fluoride varnish applied in primary-care settings
  - Dental disease process, role of fluoride
  - Development of primary and permanent dentition
  - Patient utilization of medical vs. dental care for very young children
  - Cost of fluoride vs. treatments for decayed primary teeth (e.g. prefab SSC crowns, sedation)



# Examples of Use of Basic Clinical Knowledge in Policymaking

- Cost of urgent/emergent care in non-dental settings

# Examples of Use of Basic Clinical Knowledge in Policymaking

- Other health costs related to lack of dental services
  - low birth outcomes
  - aspiration pneumonia in medically compromised patients
  - diabetes
  - heart disease
  - ?

# Medicaid Systems & Provider Billing

- Standardized code set (CDT5)
- Make Medicaid policies for billing as close to those of private dental insurance as possible
- Keep handbook/policies updated, communicate changes to staff
- Communicate eligibility requirements/ changes to billing and registration staff



# Hot topics

Fuego, Antigua, Guatemala, March 26, 2002

Bob March 25,  
2002



ART

fluoride varnish, xylitol,  
evidence based outcomes

# Overcoming obstacles to access

# Urgent Care Dental In-State Emergency Provider Data Sheet

- Mechanism for non-certified providers to provide urgent care
- Intended to alleviate an urgent need, not limited to one tooth
- Intended to reduce backlog of urgent needs
- Complete data sheet/ADA claim form

WISCONSIN MEDICAID  
URGENT CARE DENTAL IN-STATE EMERGENCY PROVIDER DATA SHEET

Wisconsin Medicaid requires information to enable Medicaid to provide temporary certification and to authorize and pay for dental services provided to eligible recipients.

A Dental Provider's personally identifiable information is used for purposes directly related to Medicaid administration such as determining the temporary certification of providers or processing provider claims for reimbursement. Failure to supply the information requested by the form may result in denial of Medicaid payment for the services.

You are considered a Medicaid provider only for purposes of the care provided to the recipient indicated below on the date indicated below ("the care"). By submitting a bill for Medicaid payment for the care, you agree to keep records disclosing the extent of the care and Medicaid payments claimed for the care and, upon request, to furnish to state or federal Medicaid authorities any such records. **Under state and federal laws, by accepting Medicaid payment for the care you are prohibited from seeking payment from the recipient, or other person on behalf of the recipient, even if there is a difference between your normal charge and the Medicaid payment for the care.**

**INSTRUCTIONS:** Complete this data sheet for whoever performed dental services on a Wisconsin Medicaid recipient. This is required in order to submit claims for urgent dental services. **Attach this data sheet to ADA 2000 or CMS 1500 claim form.**

In order to be reimbursed for services provided, Wisconsin Medicaid must receive correct and complete claims, including resubmissions and adjustments, within 365 days from the date of service.

Submit completed form with attachments to:

Wisconsin Medicaid  
In-State Emergency Claims  
6406 Bridge Rd  
Madison WI 53784-0011

**Important:** For a provider to be paid for services, the provider must verify recipient eligibility. This can be done by calling the Eligibility Hotline at (800) 947-9627.

Name — Provider		Telephone Number — Provider
Address — Provider (where services are rendered)		
Name — Payee (to whom checks are made payable)		
Address — Payee (where checks are to be sent)		
Payee's: <input type="checkbox"/> Federal Identification/IRS Number _____ - _____		
<input type="checkbox"/> Social Security Number _____ - _____		
License Number _____		
Name — Recipient	Recipient Medicaid Number	

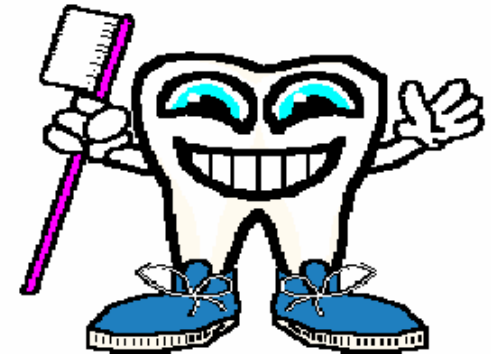
I affirm that services provided are medically indicated and necessary to the patient's health. The services are within the scope of my (our) licensure. I understand that any false claims, settlements, documents, or concealment of material fact may be prosecuted under applicable federal and state law. I further affirm that to the best of my knowledge the information presented here is accurate and complete.

SIGNATURE — Provider or authorized agent of institution	Date Signed
---	-------------

If you have any questions, call Wisconsin Medicaid Provider Services at (800) 947-9627.

[Reset Form](#)

"It's easy!"





EMERGENCY CODES FOR DENTAL CARE	
CODE	DESCRIPTION
D0140	Limited oral evaluation — problem focused
D0220, D0230	Intraoral — periapical first films
D0250	Extraoral first
D0260	Extraoral — each additional film
D0270	Bitewing-single film
D0330	Panoramic film
D2140-D2394	Restorative services
D2930	Prefabricated stainless steel crown — primary tooth
D2931	Prefabricated stainless steel crown — permanent tooth
D2932	Prefabricated resin crown
D2940	Sedative filling
D3220	Therapeutic pulpotomy (excluding final restoration) — removal of pulp coronal to the detriocemental junction and application of medicament
D3221	Gross pulpal debridement, primary and permanent teeth
D9110	Palliative (emergency) treatment dental pain — minor procedure
D5510	Repair broken complete denture base
D5520	Replace missing or broken teeth — complete denture (each tooth)
D5610	Repair resin denture base
D7111, D7140	Extractions
D7210, D7220, D7230, D7240	Surgical extractions
D7250	Surgical removal of residual tooth roots (cutting procedure)
D7260	Oroantral fistula closure
D7270	Tooth reimplantation and/or stabilization of accidentally evulsed or displaced tooth and/or alveolus
D7510	Incision and drainage of abscess — intraoral soft tissue
D7520	Incision and drainage of abscess — extraoral soft tissue
D7610- D7780	Treatment of fractures
D7820	Closed reduction of dislocation
D7830	Manipulation under anesthesia
D7910- D7912	Sutures
D9220	General anesthesia — first 30 minutes
D9248	Non-intravenous conscious sedation
D9241	Intravenous sedation/analysis — first 30 minutes
D9420	Hospital call



# Websites

- <http://www.aapd.org/media/policies.asp>
- <http://dhfs.wisconsin.gov/Medicaid/index.htm?ref=hp>
- <http://www.wphca.org/Wisconsin%20MA%20Dental%20Facts%2003.pdf>

# wisconsin Medicaid update and BadgerCare

March 2004 • No. 2004-19

Wisconsin Medicaid and BadgerCare Information for Providers

To:  
Dentists  
HMOs and Other  
Managed Care  
Programs

## Wisconsin Medicaid accepting ADA 2002 and 2000 claim forms

**Effective immediately, Wisconsin Medicaid accepts the ADA 2002 and 2000 claim forms. Wisconsin Medicaid does not accept claims on the ADA 1994 claim form; claims submitted on this claim form are denied.**

### ADA 2002 and 2000 claim forms now accepted by Wisconsin Medicaid

Effective immediately, Wisconsin Medicaid accepts the American Dental Association's ADA 2002 and 2000 claim forms.

Submit completed claims according to the instructions specific to the claim form. Refer to Attachments 1-4 of this *Wisconsin Medicaid and BadgerCare Update* for the ADA 2002 and 2000 claim form completion instructions and sample claims.

The ADA 2000 claim form instructions are included as a convenience for providers and do not replace the information in the July 2003 *Update* (2003-50), titled "Changes to local codes, paper claims, and prior authorization for dental services as a result of HIPAA." Providers should retain *Update* 2003-50 for their reference.

Wisconsin Medicaid's claim instructions vary from the ADA instructions. The variations are necessary for Wisconsin Medicaid to process claims. Providers are required to complete the elements in the Wisconsin Medicaid instructions

found in Attachments 1 and 3 as appropriate. No other claim form elements are required. In addition, providers are not required to include attachments to the claim form unless instructed to do so in the Dental Services Handbook.

Mail completed paper claims to:

Wisconsin Medicaid  
Claims and Adjustments  
6406 Bridge Rd  
Madison WI 53784-0002

*Note:* As stated *Update* 2003-50, Wisconsin Medicaid does not accept the ADA 1994 claim form. Claims submitted on this claim form are denied.

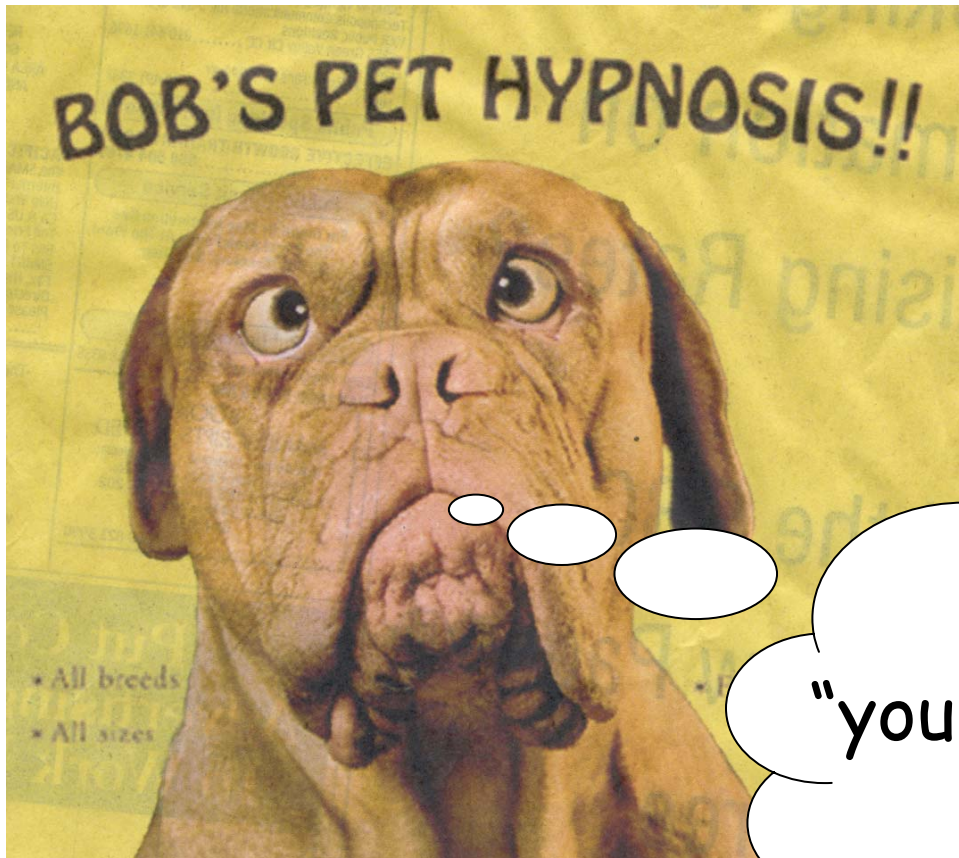
### Order ADA claim forms

Wisconsin Medicaid does not provide the ADA claim forms. To order the ADA 2002 or 2000 claim forms, do one of the following:

- Call the American Dental Association at (800) 947-4746.
- Order online at [www.adacatalog.org/](http://www.adacatalog.org/).

# Thank-you!

Robert Dwyer, DDS  
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Division of Health Care  
Financing  
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608.264.6754



"you have questions?"