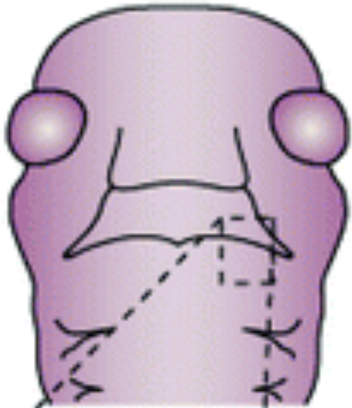
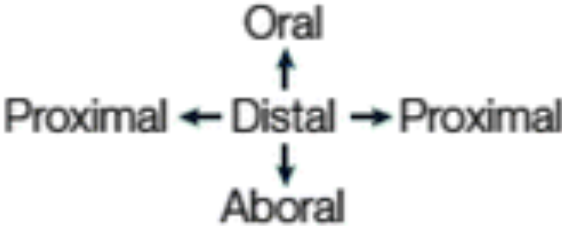
Pediatrics

ORTHODONTICS/PEDIATRIC DENTISTRY [52 items]	
Individual Tooth Pathology	15
Supporting Tissue Pathology	8
Dentofacial Variations	9
Behavior	10
Systemic Pathology	10

Odontogenesis





Neural-crest-derived mesenchyme

Condensing dental mesenchyme

Oral epithelium

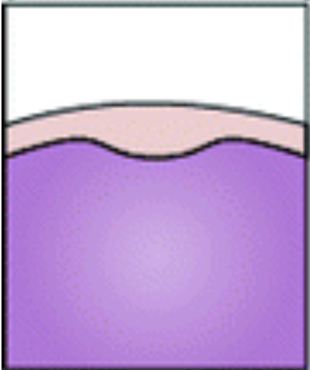
Enamel

Ameloblasts

Dentin

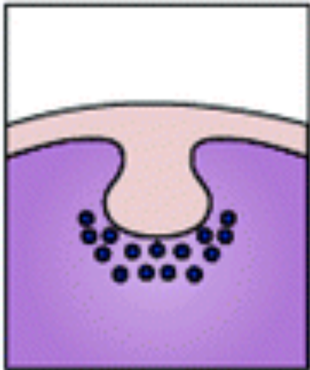
Odontoblasts

Dental pulp

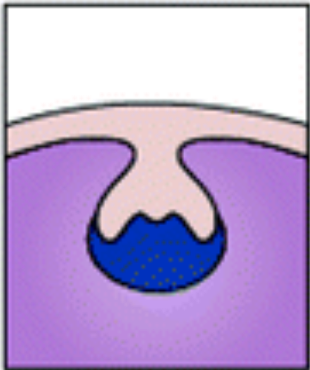


Thickening

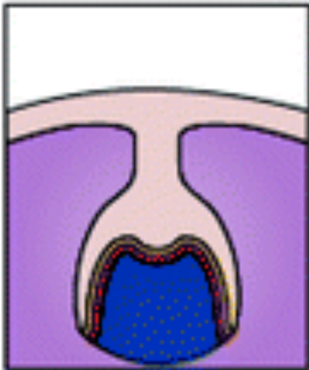
Initiation



Bud



Cap



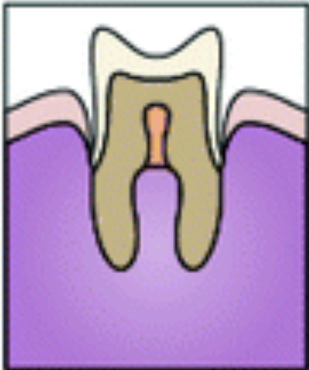
Bell

Histodifferentiation

Morphodifferentiation

Apposition

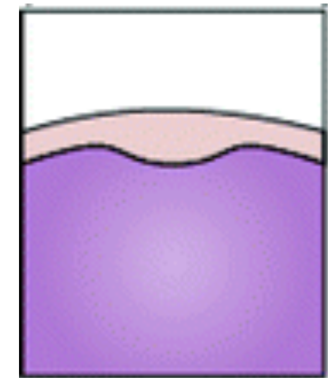
Maturation



Erupted tooth

6 weeks in utero

Initiation

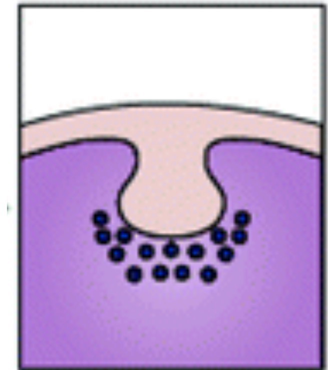


- Oral epithelium= outer layer
- Dental lamina= first evidence of forming, budding teeth
- Ectomesenchyme= signals overlying oral epithelium to proliferate into dental lamina

Defects= congenitally missing, supernumerary

8 weeks in utero

Bud Stage

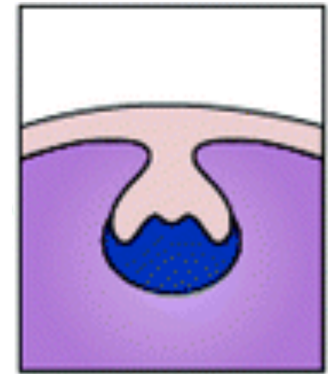


- Dental placode= proliferating bud
  - All primary teeth and permanent molars arise from dental lamina
  - Permanent incisors, canines, and premolars arise from their primary predecessor
- **Condensing mesenchyme**

Defects= congenitally missing, supernumerary

9 weeks in utero

Cap Stage

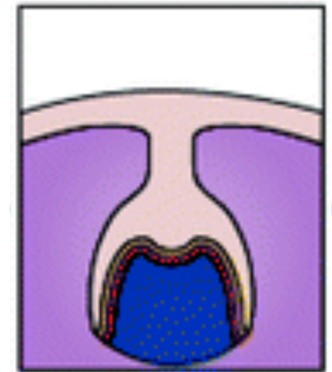


- Enamel organ *(enamel)*
  - OEE= outer cell layer
  - IEE= inner cell layer
  - Stellate reticulum= between layers
  - Enamel knot *(cusp tips)*
- Dental papilla *(dentin and pulp)*
- **Dental follicle**= surrounding sac

Defects= cyst, odontoma, gemination, fusion, dens in dente

11 weeks in utero

Bell Stage: Histodifferentiation

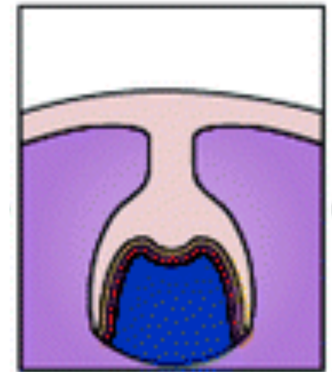


- Transformation into distinct cell types
  - IEE → **ameloblasts**
  - Dental papilla → **odontoblasts**

Defects= amelogenesis imperfecta, dentinogenesis imperfecta

11 weeks in utero

Bell Stage: Morphodifferentiation

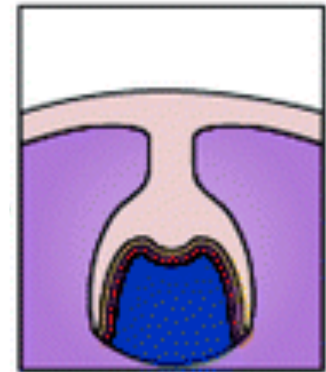


- Shape and size of eventual crown is determined during this process

Defects= size and shape abnormalities like peg laterals and macrodontia

14 weeks in utero

Apposition

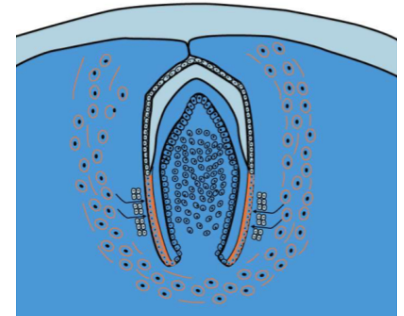


- **Odontoblasts** deposit dentin matrix (collagen)
- **Ameloblasts** deposit enamel matrix (amelogenin)
- **Cervical loop**= where IEE and OEE join
  - Hertwig's epithelial root sheath (HERS)
  - Epithelial rests of Malassez
- IEE + OEE = REE *(junctional epithelium)*

Defects= enamel hypoplasia, enamel pearls, concrescence

14+ weeks in utero

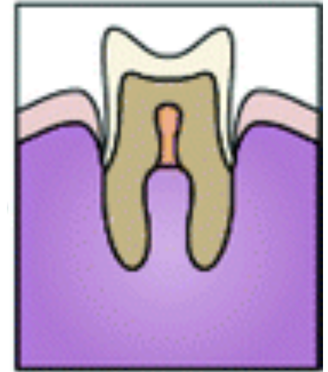
Maturation



- Deposition of enamel and dentin
- Calcification begins at cusp tips/incisal edges and proceeds cervically
- Takes 2 years to complete for primary tooth crown
- Takes 4-5 years to complete for permanent tooth crown

Defects= enamel hypomineralization, fluorosis, tetracycline staining

Summary


Erupted tooth

TOOTH GERM

- Enamel organ
  - Ameloblasts → enamel
- Dental papilla
  - Odontoblasts → dentin
  - Central cells → pulp
- Dental follicle
  - Cementoblasts → cementum
  - Osteoblasts → alveolar bone
  - Fibroblasts → PDL

Calcification Dates

Primary Tooth	Calcification Start Date
Central incisors	14 weeks in utero
First molars	15 weeks in utero
Lateral incisors	16 weeks in utero
Canines	17 weeks in utero
Second molars	18 weeks in utero

A 14
D 15
B 16
C 17
E 18

Calcification Dates

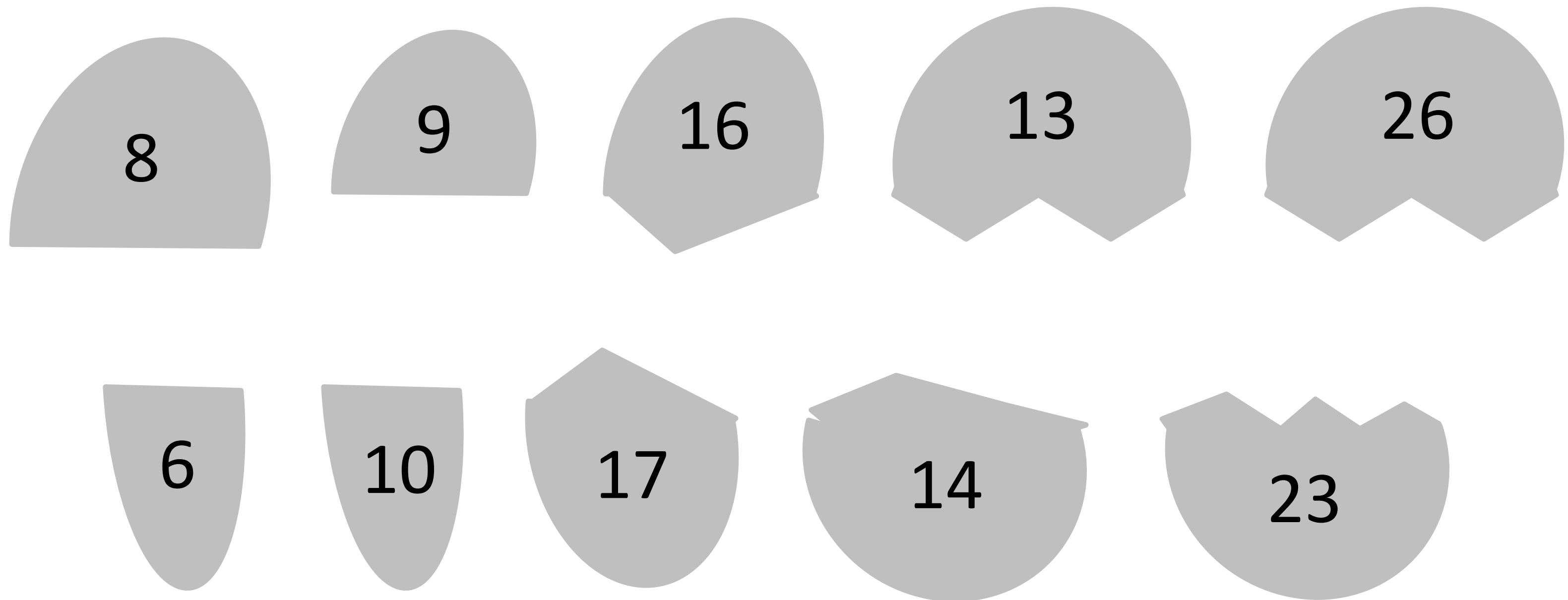
Permanent Tooth	Calcification Start Date
First molars	Birth
All anterior teeth except maxillary laterals	6 months
Maxillary laterals	12 months
First premolars	18 months
Second premolars	24 months
Second molars	30 months

6	0
1, L2, 3	6
U2	12
4	18
5	24
7	30

Eruption Dates

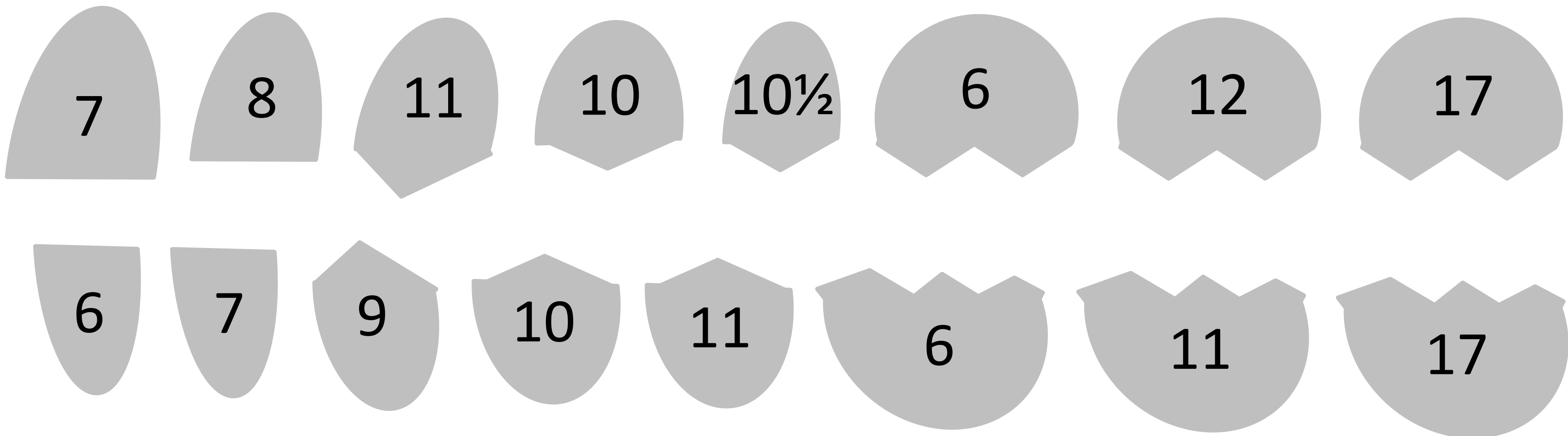
nxi MAIN

Primary Teeth



#= months

Permanent Teeth



Mandible > Maxilla
Female > Male
2-3 Rule

#= years

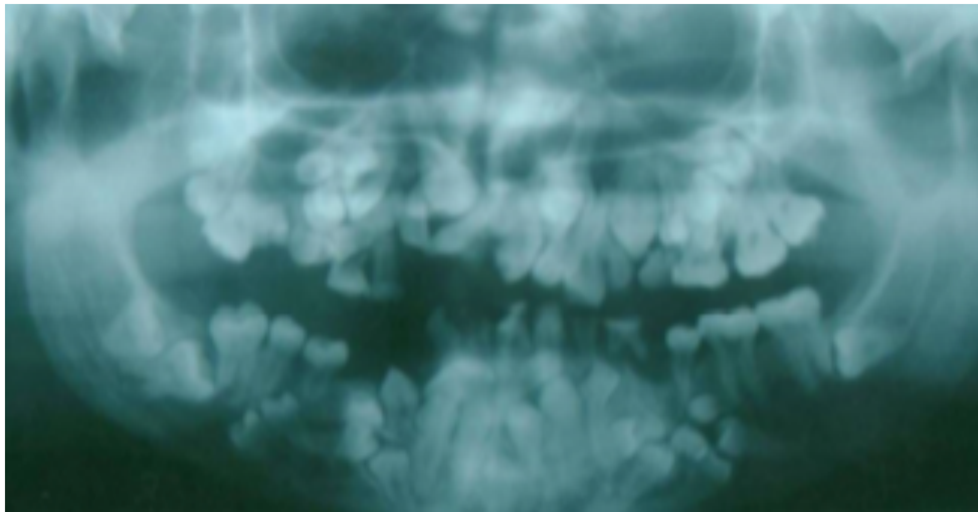
Pediatrics

Anomalies of Number

- Supernumerary
- Congenital absence

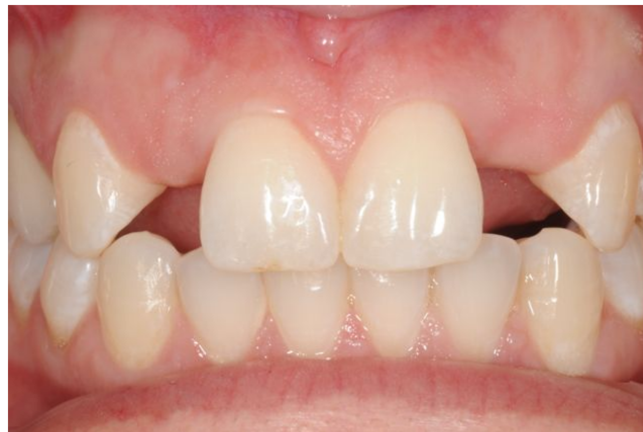
Supernumerary Teeth

- 3% of population
- Most common is mesiodens
- May block normal eruption of permanent teeth



Congenitally Missing Teeth

- Mandibular second premolars > maxillary laterals > maxillary second premolars
  - Second premolar → close spaces with extraction treatment to make symmetrical
  - Lateral → canine substitution or prosthetic replacement
- Primary maxillary lateral incisor is most common congenitally missing primary tooth

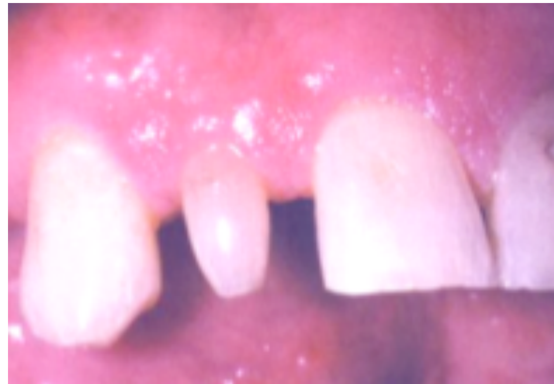


Anomalies of Size

- Microdontia
- Macrodontia
- Fusion
- Gemination

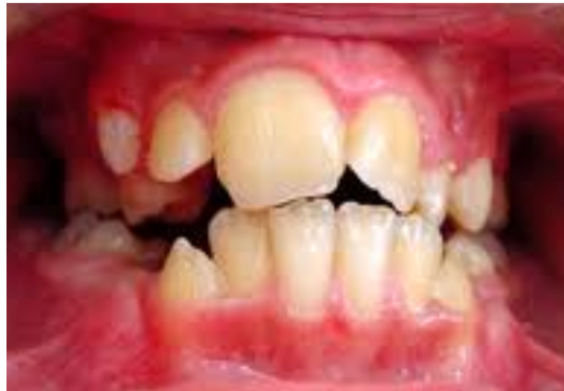
Microdontia

- Small teeth
- Generalized → Down syndrome, pituitary dwarfism, ectodermal dysplasia
- Localized → Isolated instances are common and include peg-shaped maxillary lateral



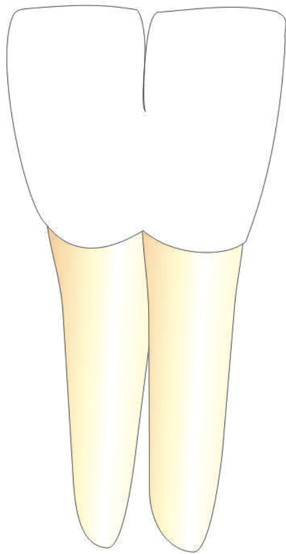
Macrodontia

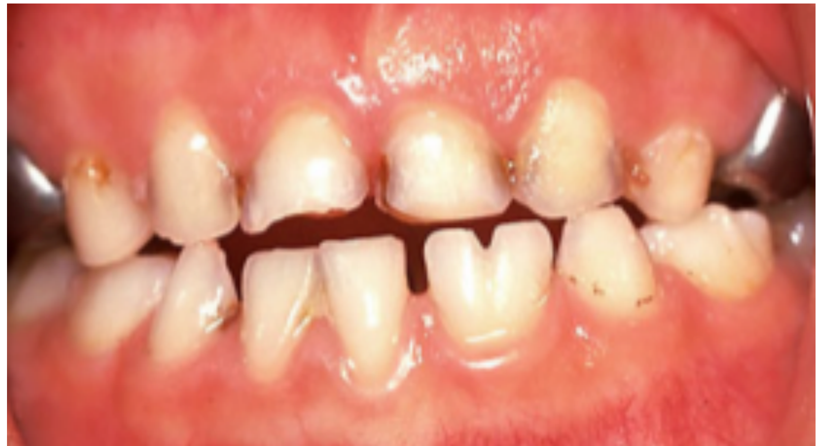
- Big teeth
- Excludes fusion or gemination
- Generalized → Pituitary gigantism or pineal hyperplasia with hyperinsulinism
- Localized → Hemifacial hyperplasia



Fusion

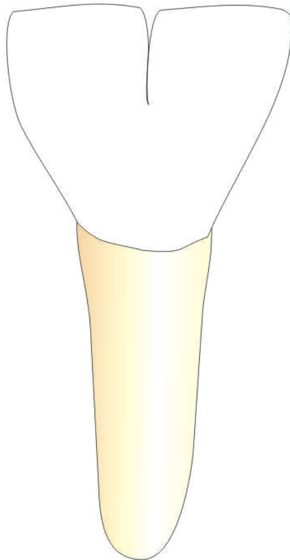
- Two buds merge into one tooth
- More common in primary teeth
- Almost always anterior teeth
- Tooth count is one less than normal

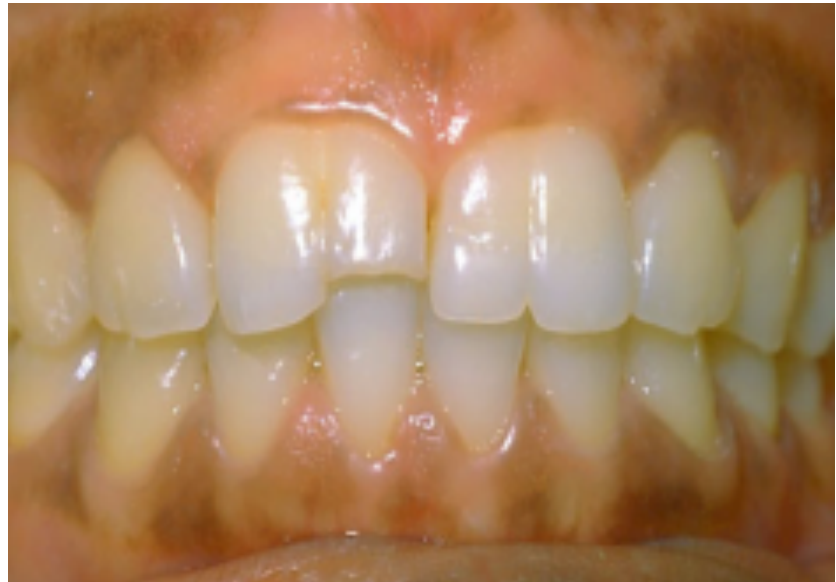




Gemination

- One root buds into two crowns
- Tooth count is normal



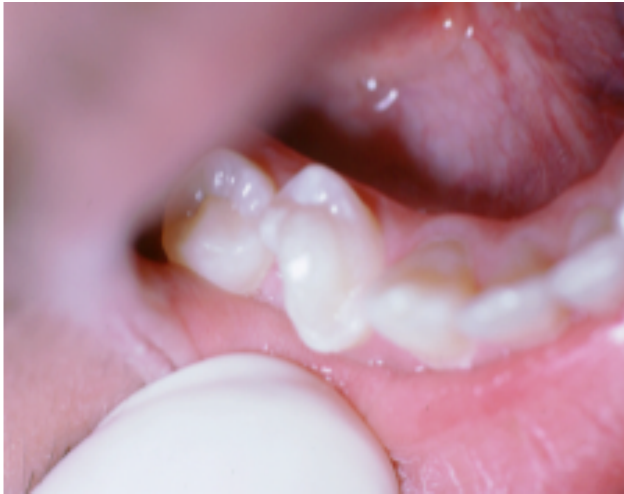


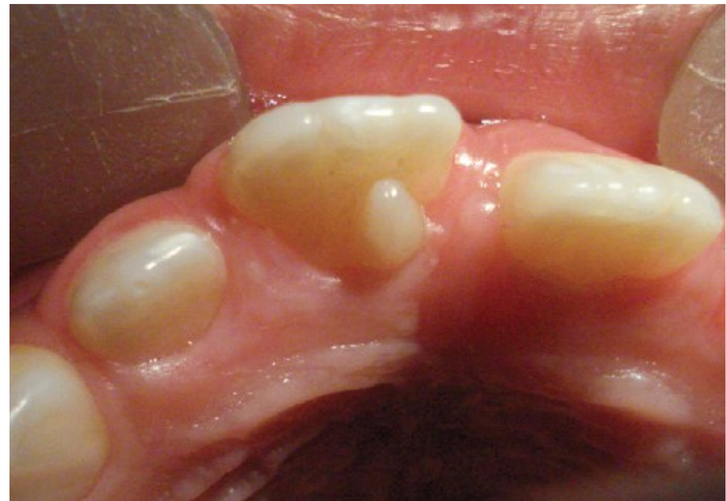
Anomalies of Shape

- Dens evaginatus
- Dens invaginatus
- Taurodontism
- Dilaceration

Dens Evaginatus

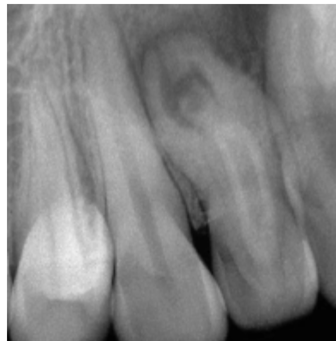
- An extra cusp
- Contains enamel, dentin, and pulp
- Called talon cusp in anterior teeth





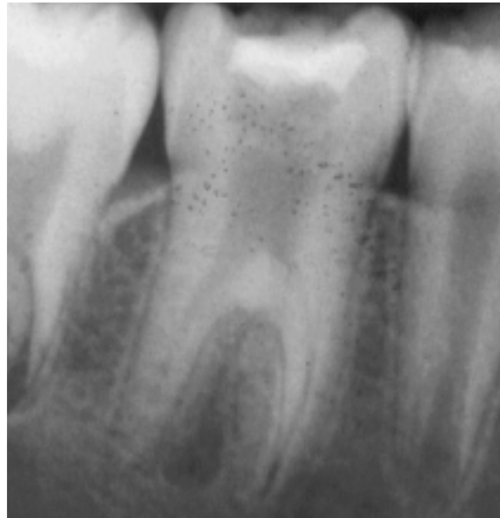
Dens Invaginatus (Dens in Dente)

- Caused by invagination of IEE
- Caries can progress very quickly through tunnel
- Most common in permanent maxillary lateral
- Need a radiograph to diagnose



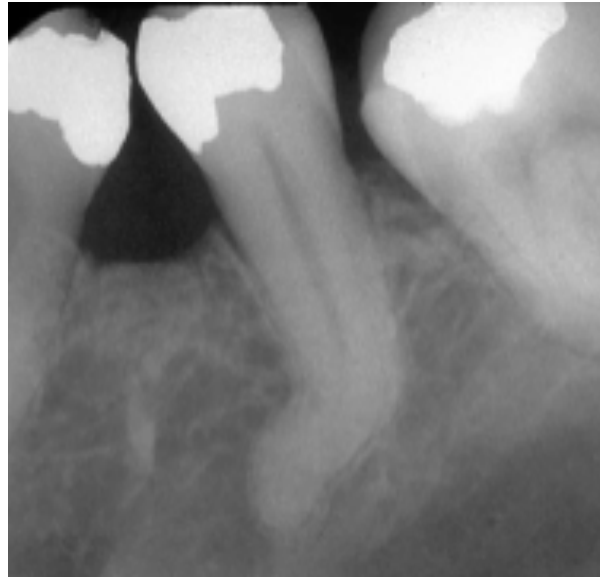
Taurodontism

- Vertically elongated pulp chamber and short roots
- Linked to Type IV amelogenesis imperfecta



Dilaceration

- Abnormal bend in root
- Usually due to traumatic injury to primary tooth

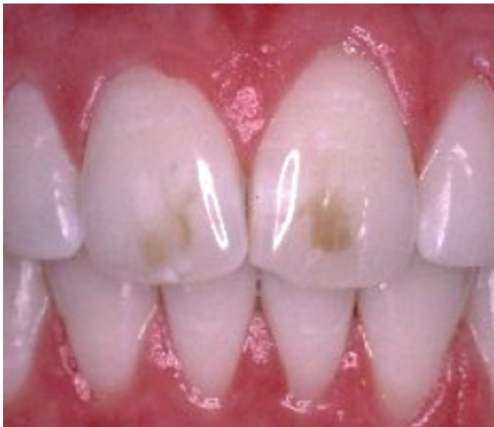


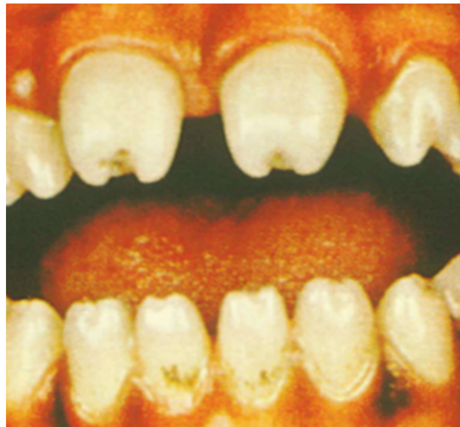
Anomalies of Structure

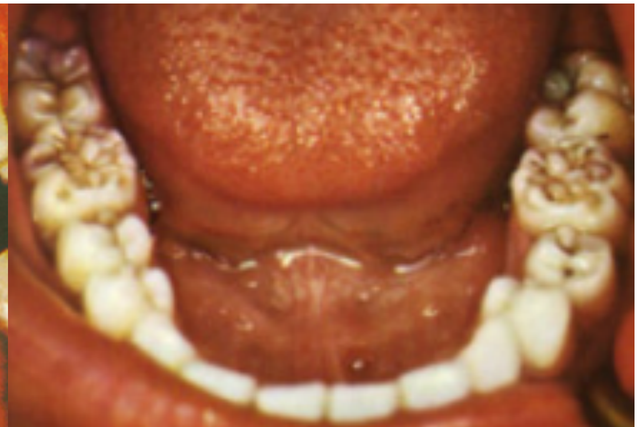
- Enamel hypoplasia
- Enamel hypocalcification
- Amelogenesis imperfecta
- Dentinogenesis imperfecta
- Dentin dysplasia
- Regional odontodysplasia
- Concrescence
- Enamel pearl

Enamel Hypoplasia

- Turner's Hypoplasia
  - Periapical infection or trauma to primary tooth causes inflammatory response that messes up ameloblasts of developing permanent tooth
- Congenital Syphilis
  - Hutchinson's incisors= hypoplastic notch
  - Mulberry molars= globular enamel

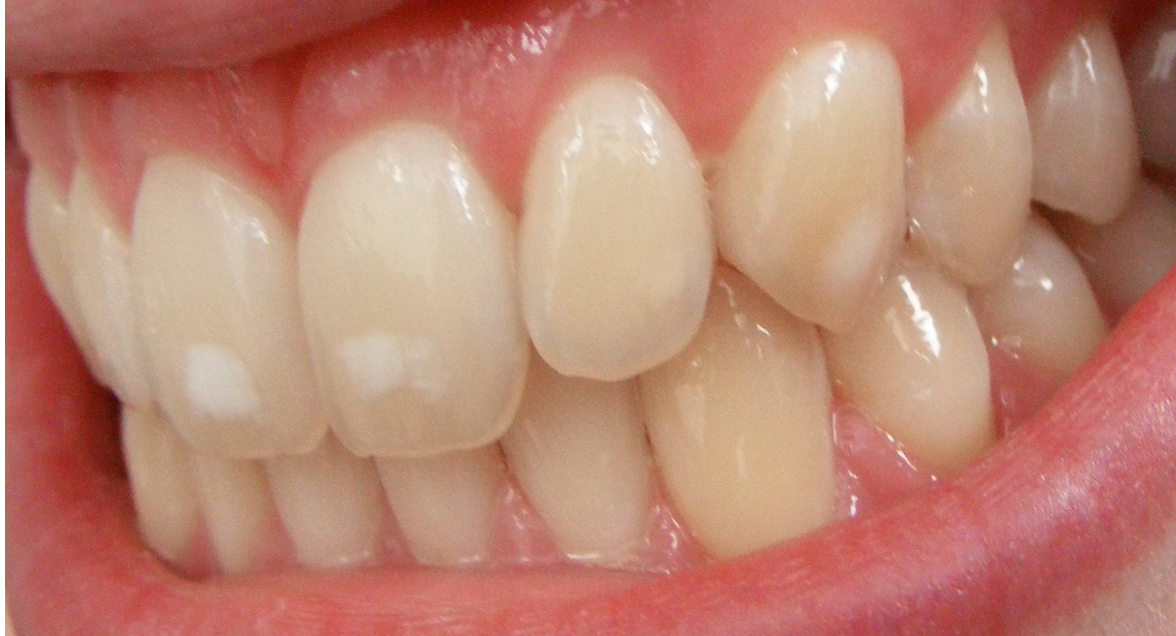






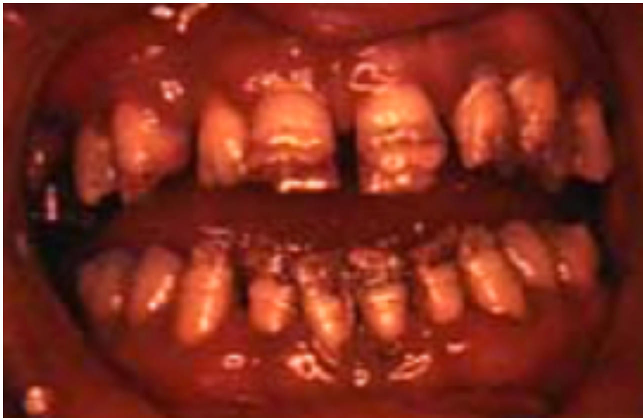
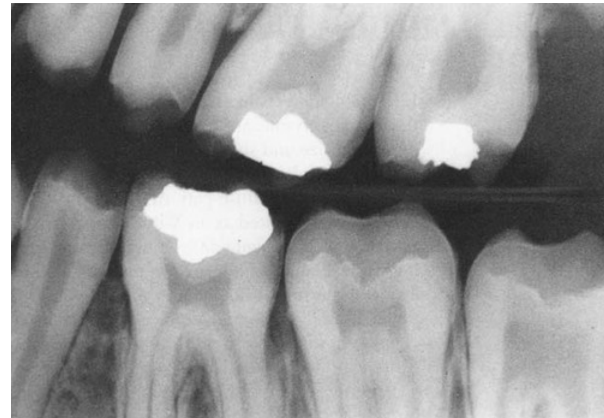
Enamel Hypocalcification

- Abnormal mineralization resulting in white spots



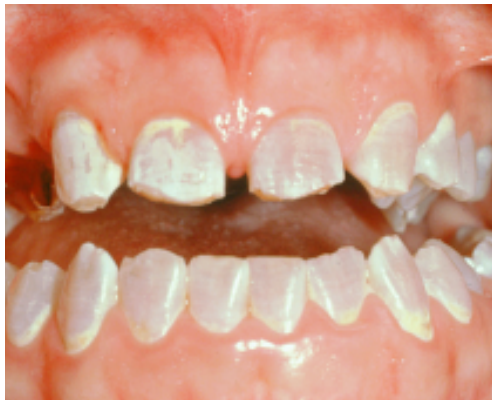
Amelogenesis Imperfecta

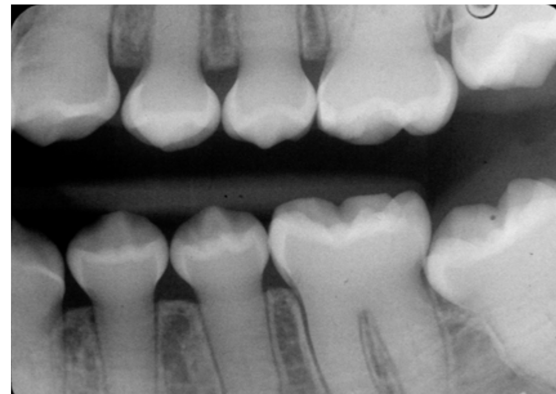
- Autosomal dominant, recessive, or X-linked
- Intrinsic alteration of <u>enamel</u>
- All teeth from both dentitions are affected
- Thin to no enamel, but dentin and pulp are normal
- Tx: full-coverage crowns for esthetics

Dentinogenesis Imperfecta

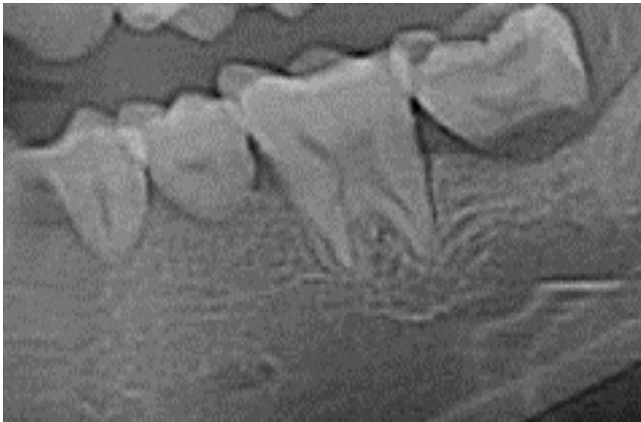
- Autosomal dominant
- Intrinsic alteration of dentin
- All teeth from both dentitions are affected
- Short roots, bell-shaped crowns, and obliterated pulps
- Bulbous crowns in radiographs due to constricted DEJ
- Blue sclera
- Tx: full-coverage crowns for esthetics

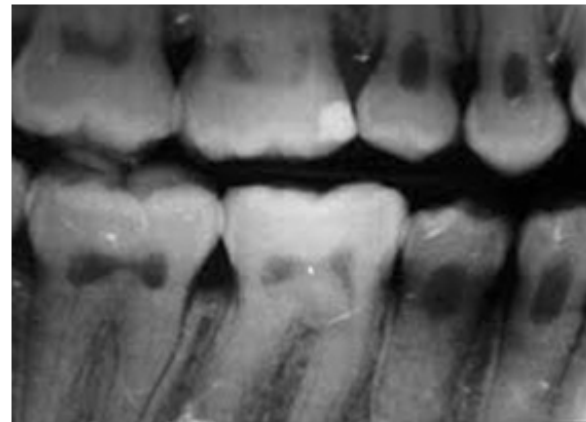




Dentin Dysplasia

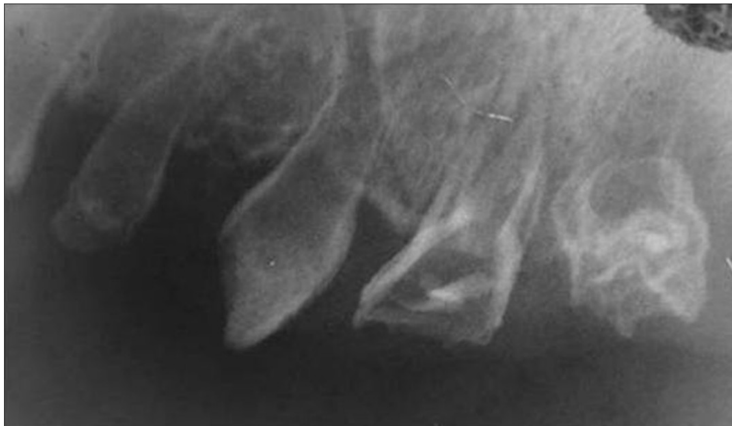
- Autosomal dominant
- Intrinsic alteration of dentin
- All teeth from both dentitions are affected
- Short roots (Type I) and chevron pulps (Type II)
- Teeth are not good candidates for restoration

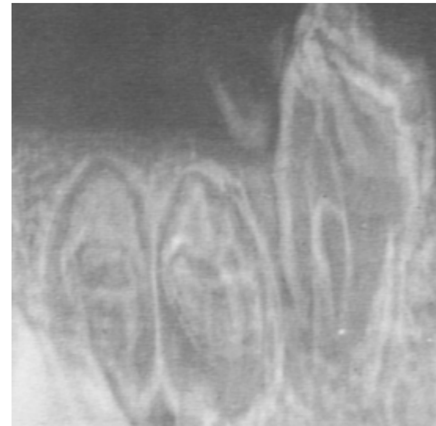




Regional Odontodysplasia

- Ghost teeth
- Quadrant of teeth exhibit short roots, open apices, and enlarged pulp chambers
- All teeth from both dentitions are affected
- Tx: support eruption, extract affected teeth



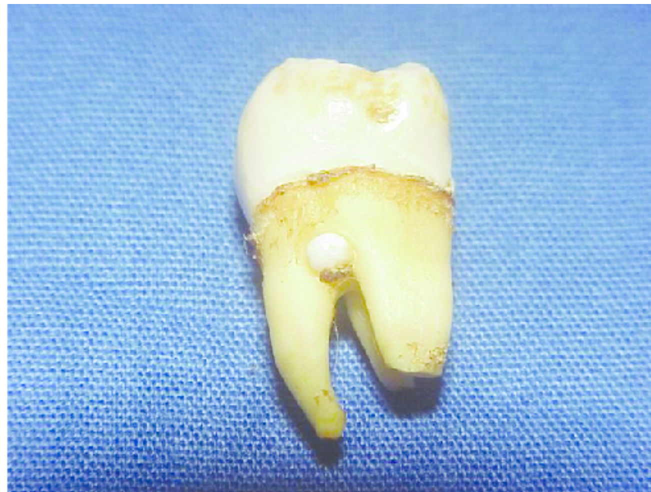


Concrescence

- Union of two adjacent teeth by cementum only
- Most common with maxillary molars
- Interference with eruption or extraction
- Linked to hypercementosis

Enamel Pearl

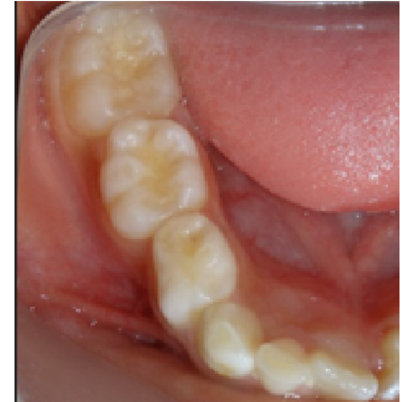
- Chunk of enamel blocking attachment of Sharpey's fibers
- Patient will automatically have a periodontal pocket
- Will not coming off with scaling
- Only in molars

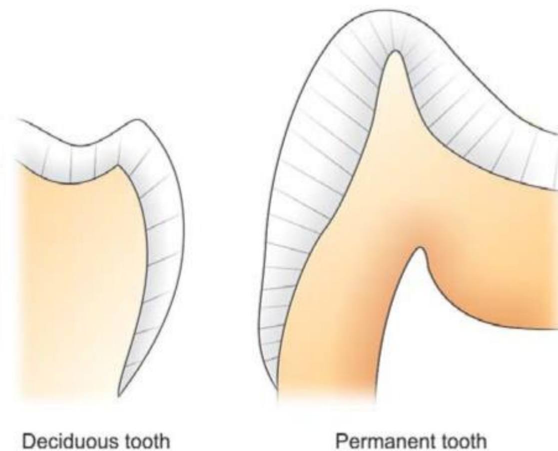


Pediatrics

Primary Tooth Anatomy

- Thinner enamel
- Bigger pulp
- Whiter
- Occlusally directed enamel rods
- Cervical bulge
- More divergent roots
- Small or absent root trunk





Primary Maxillary Central Incisor

- Widest anterior MD
- Only anterior tooth WIDTH > HEIGHT (in both dentitions!)
- Prominent labial AND lingual cervical ridges

Primary Maxillary Lateral Incisor

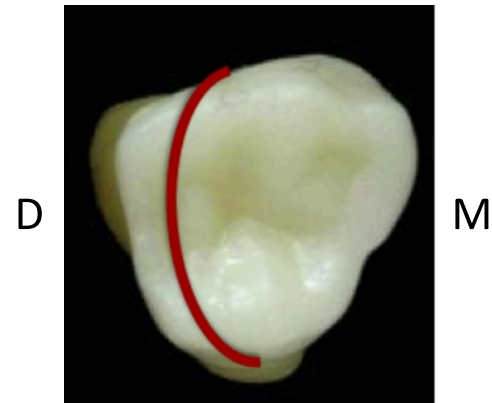
- No high yield facts

Primary Maxillary Canine

- Widest anterior FL
- MCR > DCR just like maxillary 1st premolar
- Cusp tip offset distal
- Longer and sharper cusp than mandibular canine (and even permanent maxillary canine)

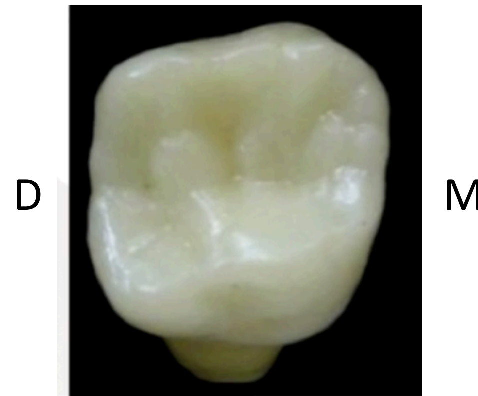
Primary Maxillary 1st Molar

- Crown resembles permanent maxillary 1st premolar with an added small distal portion
- Most prominent MF cervical ridge of maxillary primary teeth
- CEJ dips more on mesial half than on distal half to make room for the bulge



Primary Maxillary 2nd Molar

- Widest FL
- Crown resembles permanent maxillary 1st molar
- Only primary tooth with cusp of Carabelli, oblique ridge, and DL groove
- Last primary tooth to erupt



Primary Mandibular Central Incisor

- Smallest FL
- Most symmetric

Primary Mandibular Lateral Incisor

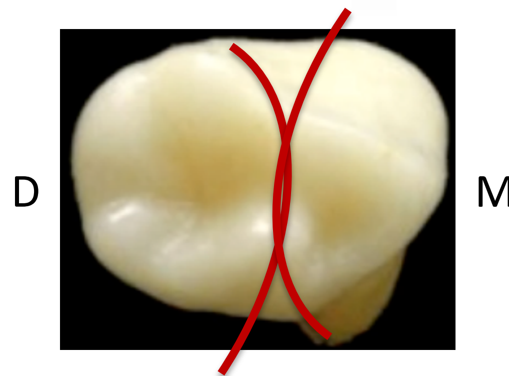
- No high yield facts

Primary Mandibular Canine

- No high yield facts

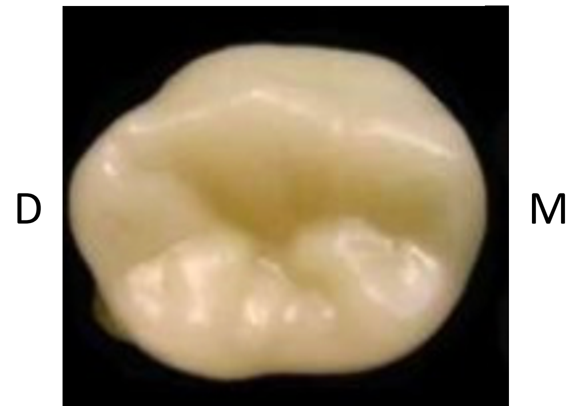
Primary Mandibular 1st Molar

- Most unique tooth
- Most distinct MF cervical ridge and transverse ridge
- Most difficult primary tooth to restore
- CEJ dips more on mesial half, resulting in S-shaped cervical ridge
- Distal triangular fossa
- ML "ice cream cone" cusp is highest and sharpest
- MB cusp is largest
- 4 cusps and 4 pulp horns

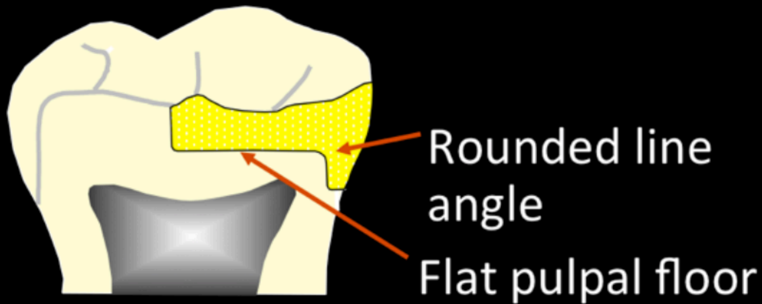


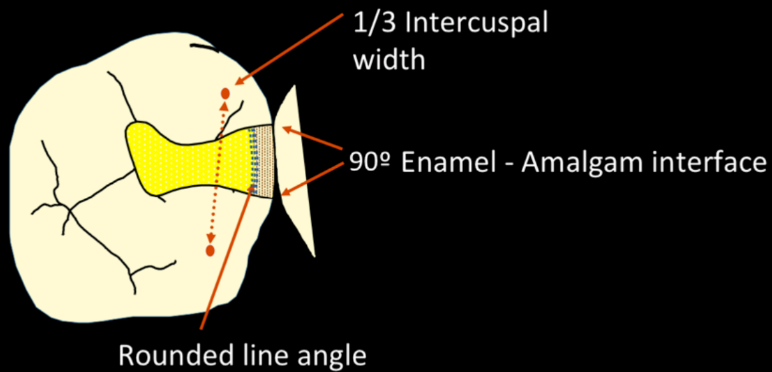
Primary Mandibular 2nd Molar

- Widest MD
- Crown resembles a permanent mandibular 1st molar except that MB, DB, and D cusps are nearly equal in size
- 5 cusps
- 2 roots (M is bigger with 2 canals)



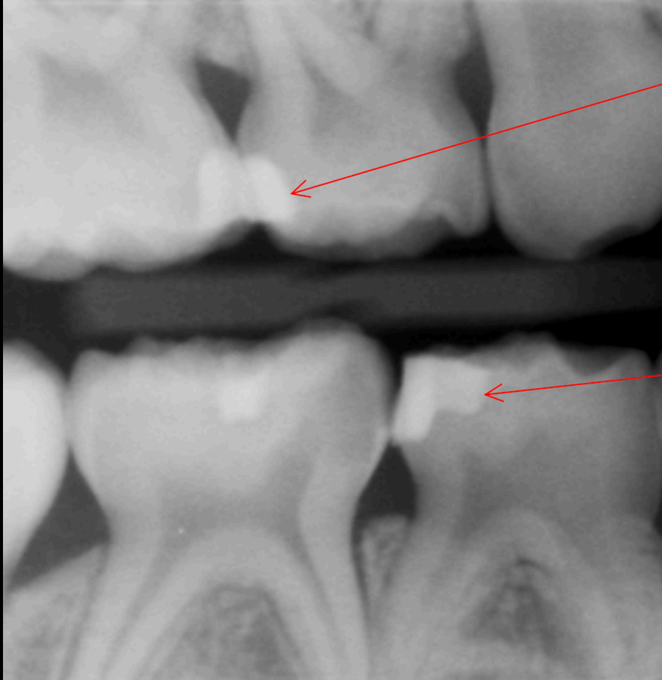
Pediatrics





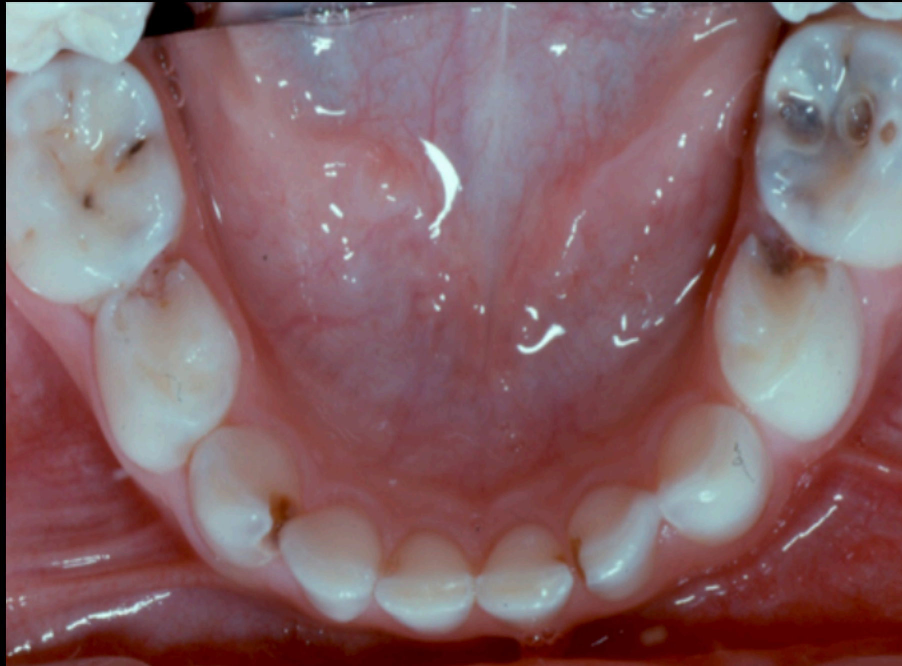
Amalgam for Primary Tooth

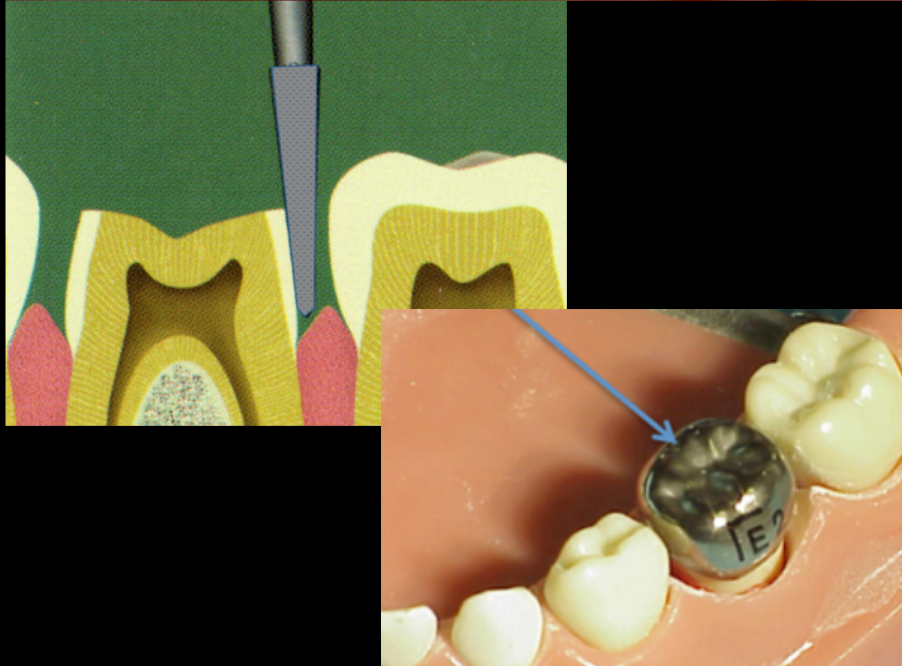
- 1.5mm deep
- Extend into susceptible pits and fissures
- Isthmus width is one third intercuspal dimension



Composite for Primary Tooth

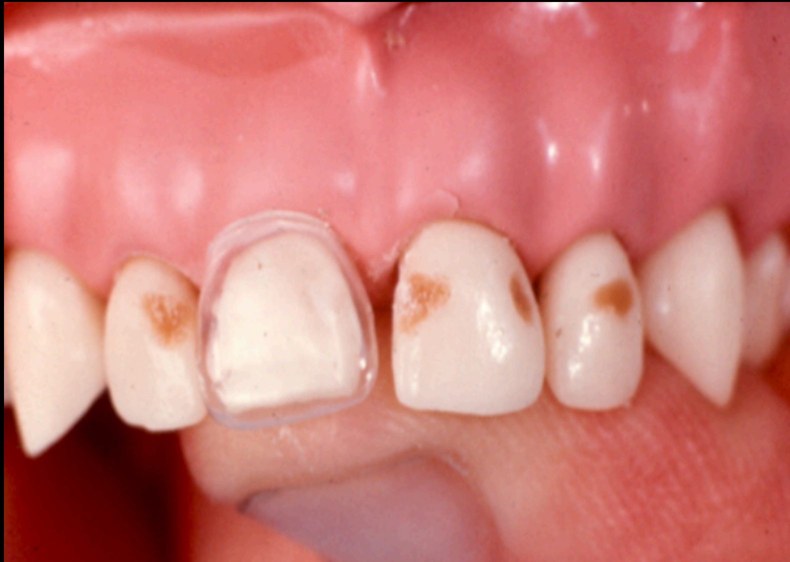
- Preparations may be more conservative than amalgam
- Requires dry, isolated field
- Most common area of failure is at gingival margin

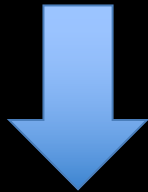


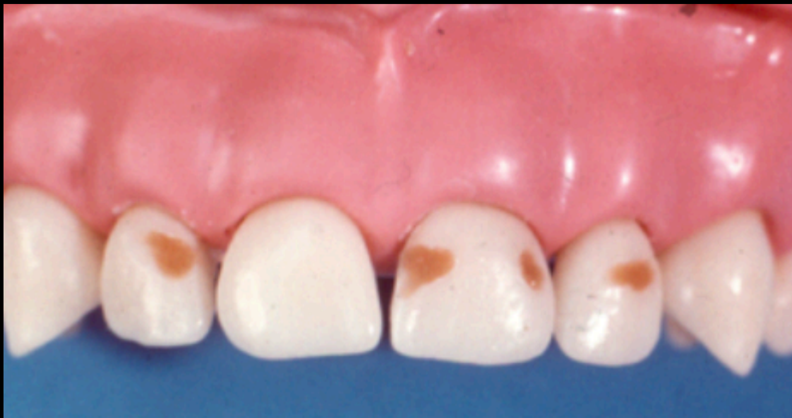


Stainless Steel Crown

- For teeth affected by extensive caries especially past the axial line angles
- 1mm occlusal reduction
- Seat from lingual to buccal
- Cervical bulge provides retention
- Allows primary tooth to function until exfoliation (never should be used as permanent restoration)





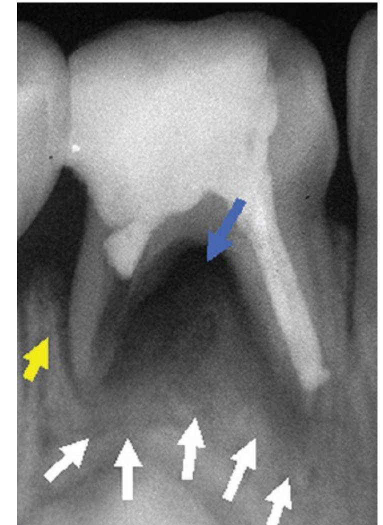


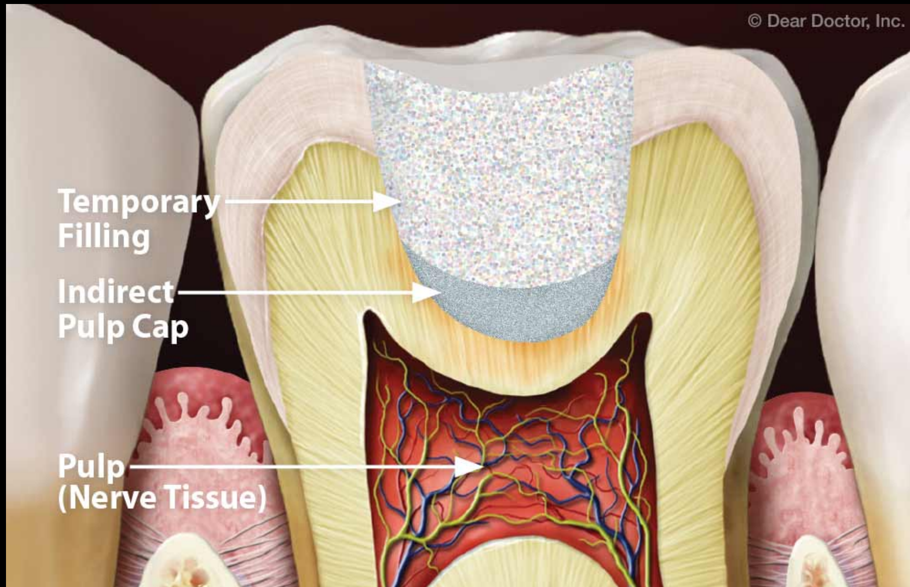
Strip Crown

- For primary incisors with proximal caries that approximates or involves incisal edge
- Good choice if adequate tooth remaining for bonding and if esthetics is of primary importance
- Celluloid crown form is trimmed with at least one vent hole to allow escape of excess composite
- 1mm incisal reduction
- Caries dictates preparation design

Endodontic Signs & Symptoms for Primary Teeth

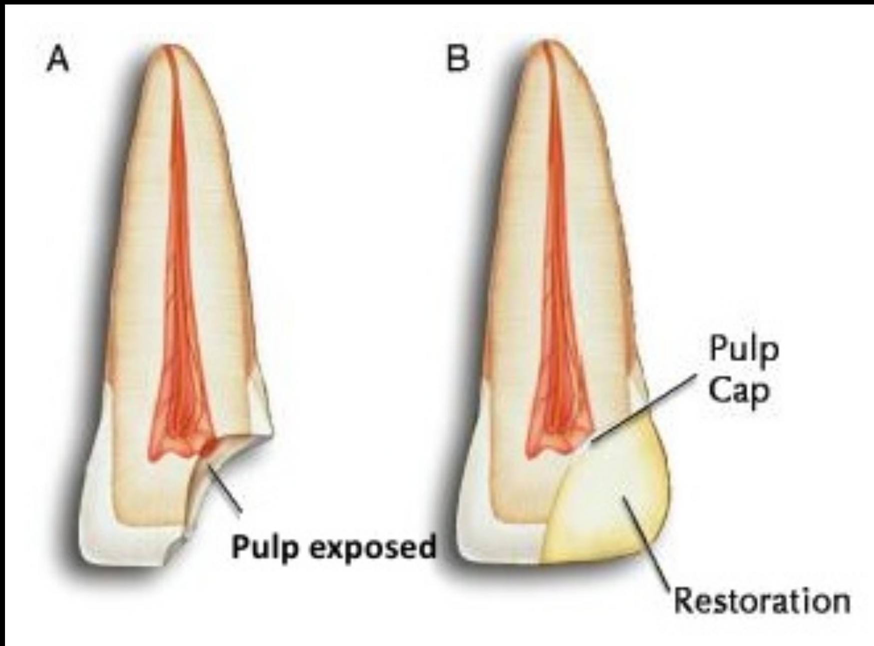
- Pain/sensitivity
- Mobility
- Fistula or abscess
- Furcation radiolucency is a sign of necrosis for a primary pulp
- Root resorption (pathologic vs. physiologic)





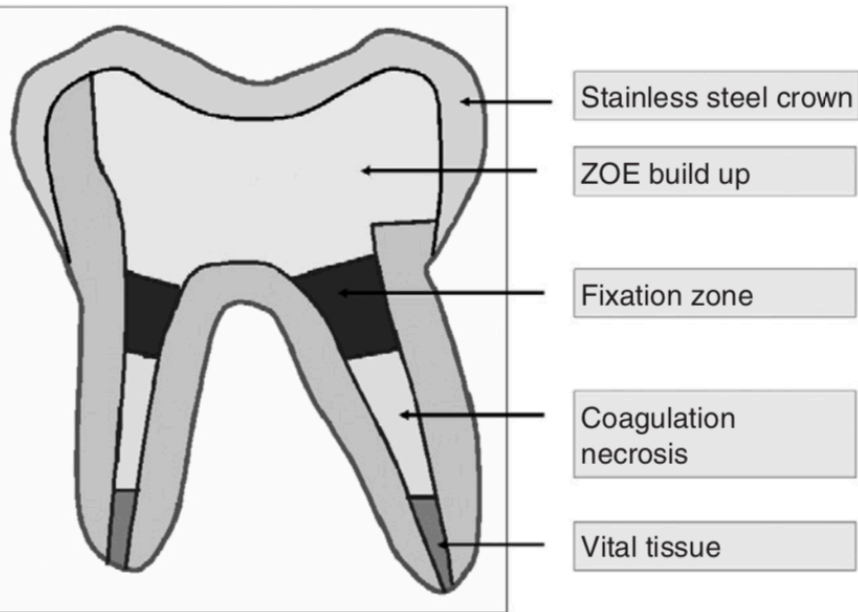
Indirect Pulp Cap (IPC)

- Deep caries approximating pulp
- Calcium hydroxide or RMGI is placed on thin partition of remaining dentin that if removed, might expose the healthy pulp



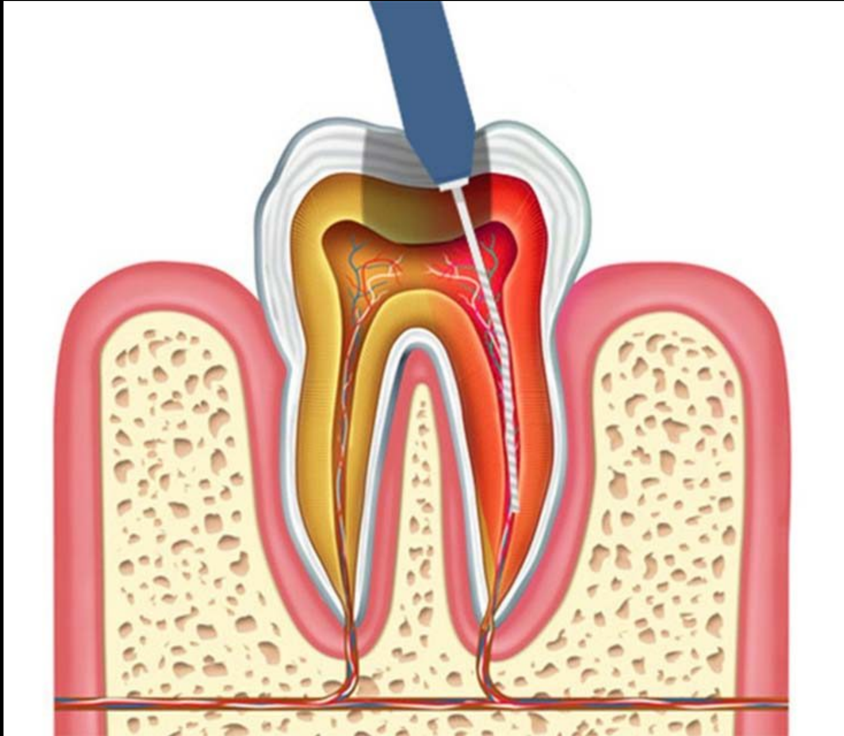
Direct Pulp Cap (DPC)

- Pinpoint pulp exposure
  - Traumatic exposure <24 hours
  - Carious or mechanical exposure <2mm
- Calcium hydroxide is placed directly on otherwise healthy pulp exposure
- RMGI placed over this as restoration
- May cause internal root resorption in primary teeth



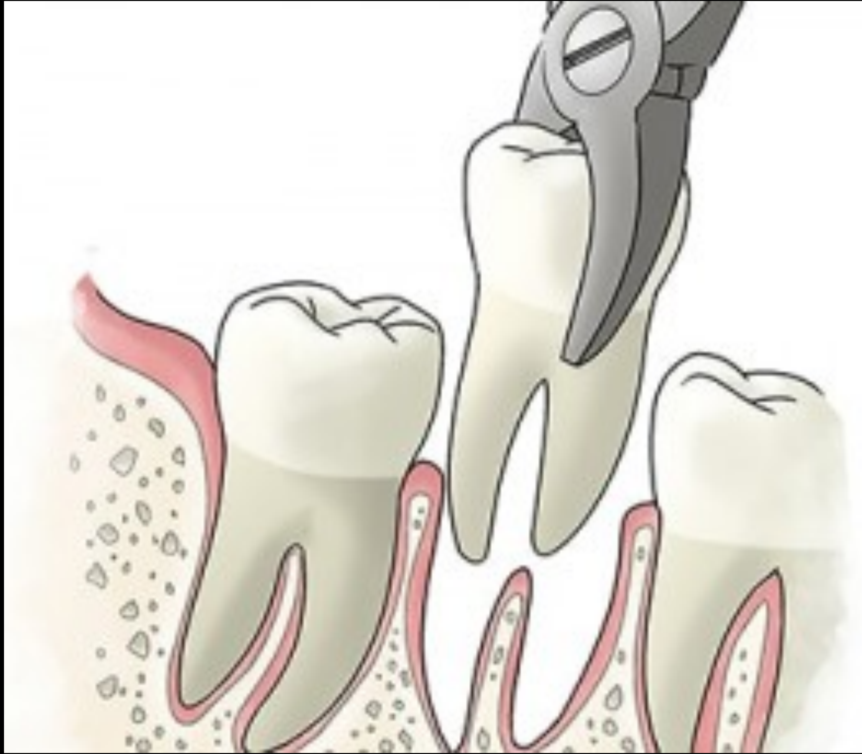
Pulpotomy (PO)

- For vital and restorable primary teeth with pulp exposure
- Dry cotton pellets to arrest pulpal hemorrhage
- Formocresol application for 5 minutes (although ferric sulfate is less toxic and MTA is more successful)
  - Why not calcium hydroxide? Causes irritation leading to root resorption in primary teeth
- ZOE buildup
- SSC coverage



Pulpectomy (PE)

- For <u>necrotic</u> and restorable primary teeth with pulp exposure
- Usually contraindicated in primary first molars because they usually have lots of accessory canals
- Basically a root canal treatment but using creamy ZOE fill

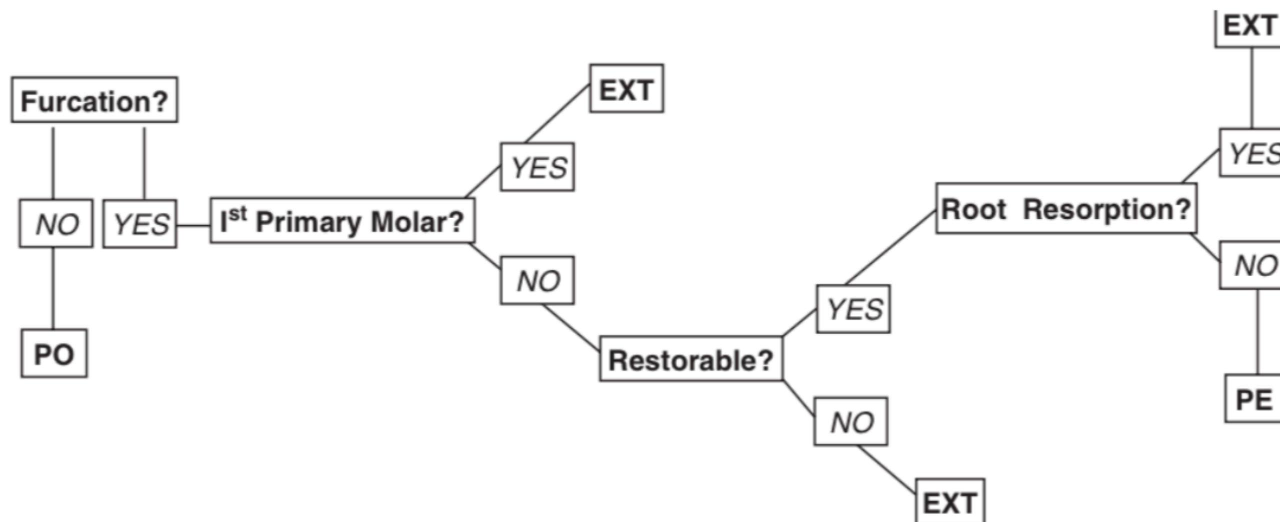


Extraction (EXT)

- <u>Necrotic</u> first primary molar, nonrestorable, or with root resorption
- Only exception may be for a second primary molar with mild to moderate root resorption in a young patient which could be saved by endo therapy as a space maintainer

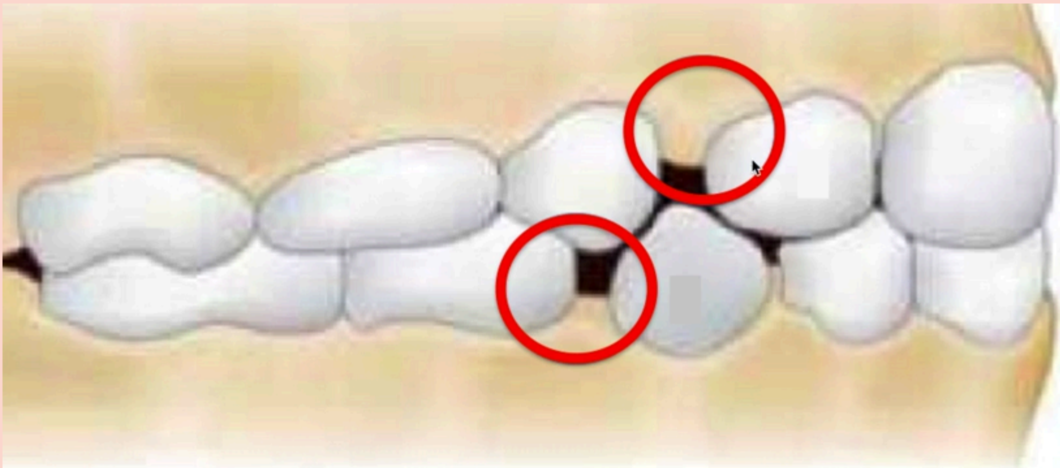
Summary

- Primary first molar with furcation involvement → EXT
- Primary second molar with furcation involvement → PE
- No furcation involvement but other endo symptoms → PO



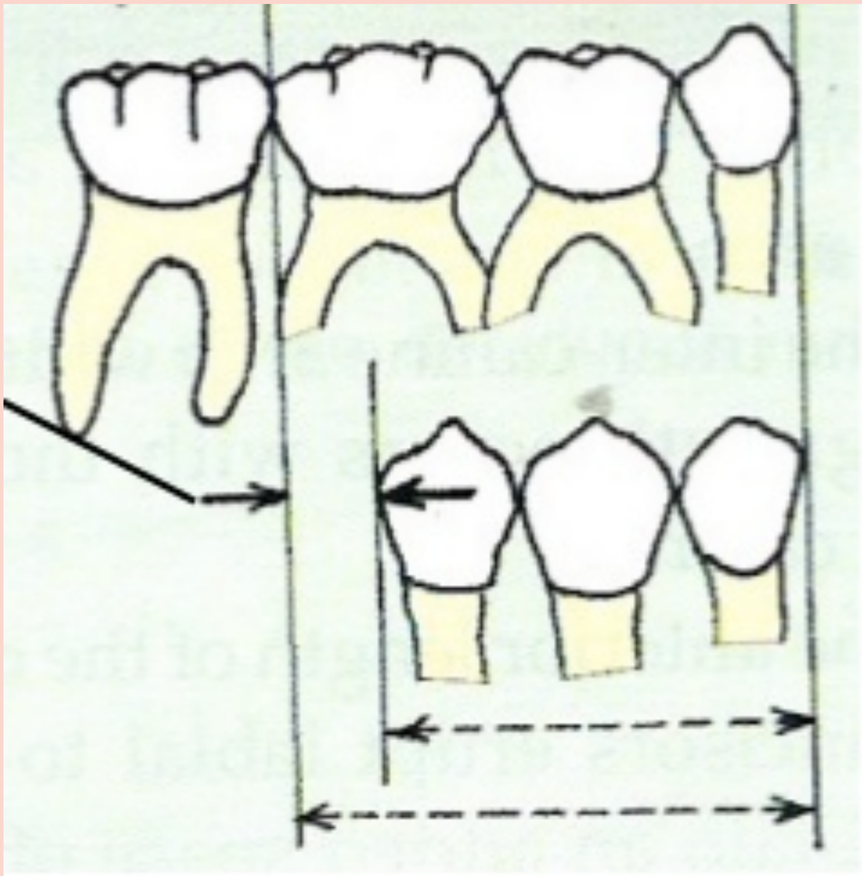
Pediatrics

Primate Space



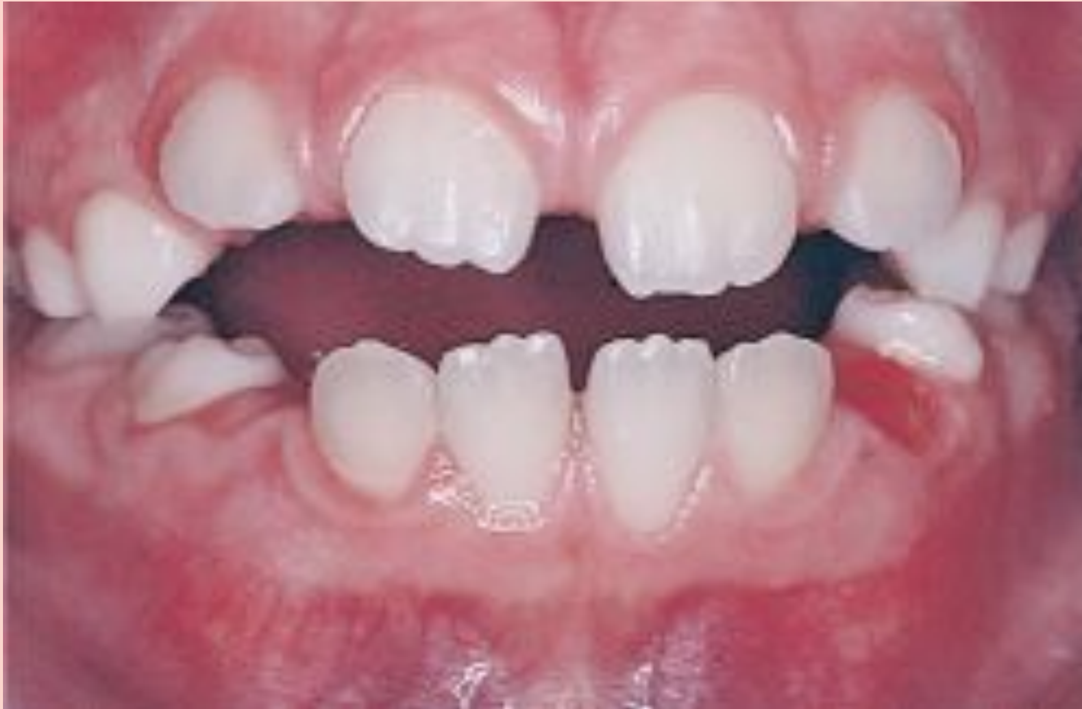
- Mesial to upper canines, distal to lower canines
- Lost early at 6 years of age

Leeway Space



- MD width of primary molars + canine is wider than MD width of permanent canine + premolars
  - 1.7-2.5mm per side lower
  - 0.9-1.5mm per side upper
- Lost late at 11-12 years of age

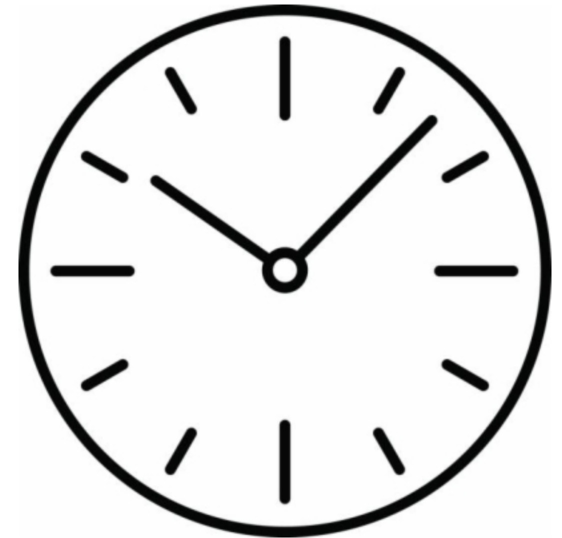
Interdental Space



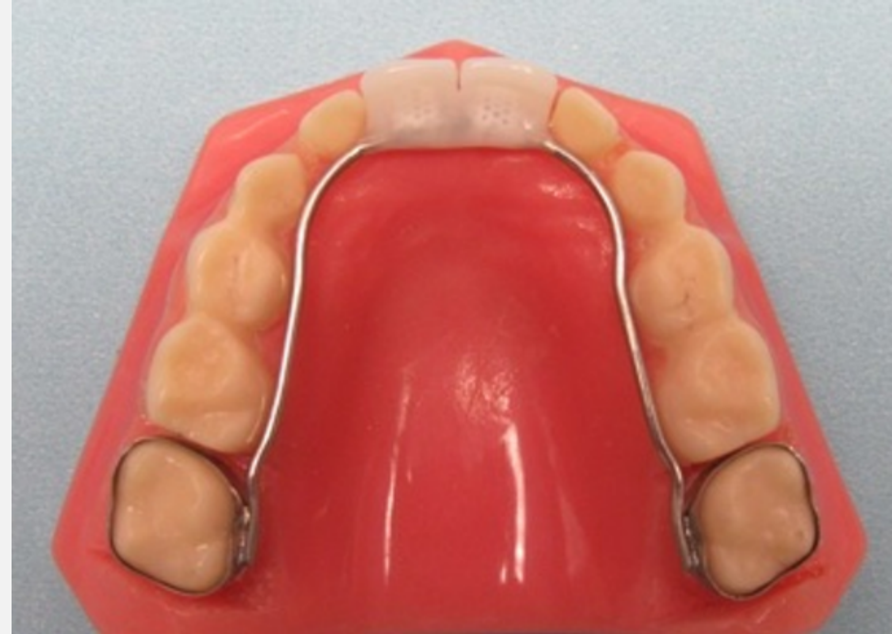
- Most frequently caused by growth of dental arches
- Ugly duckling stage precedes eruption of maxillary canines (between ages 7 and 11 years)

What Can We Do?

- Space management= proactive
- Space maintenance= reactive
- Space regaining= retroactive

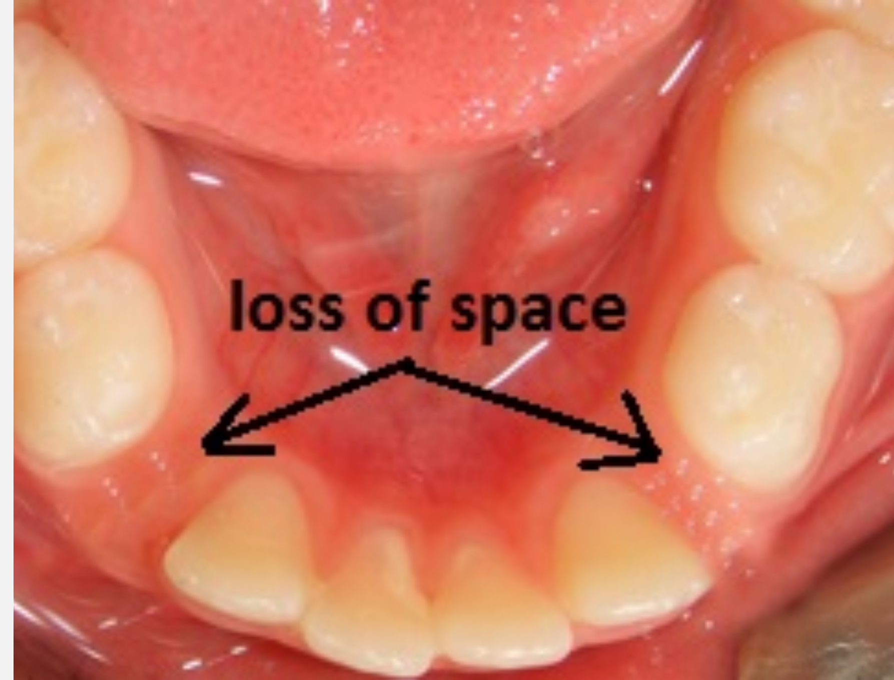


Primary Incisor Loss (As, Bs)

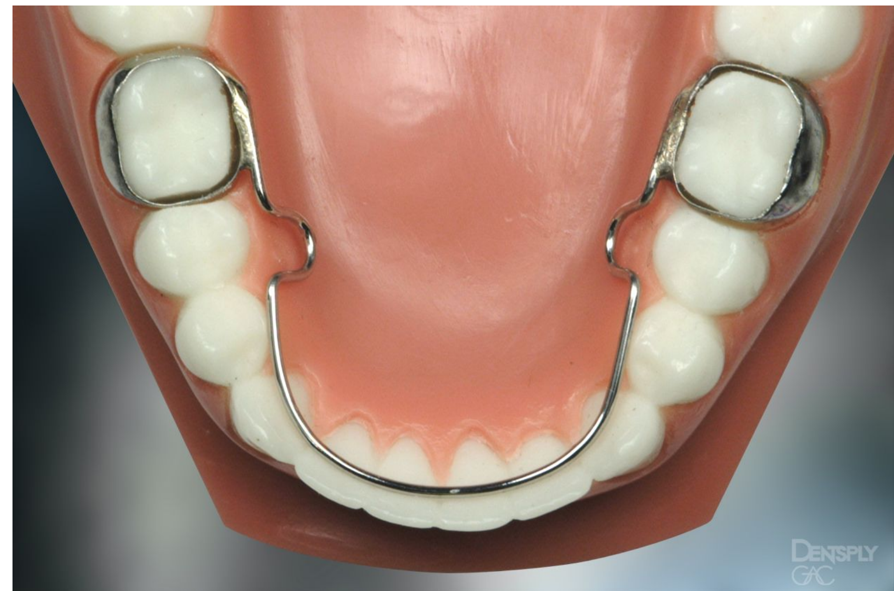


- May cause localized space loss, but not a big deal
- Kiddie partial for speech or esthetics

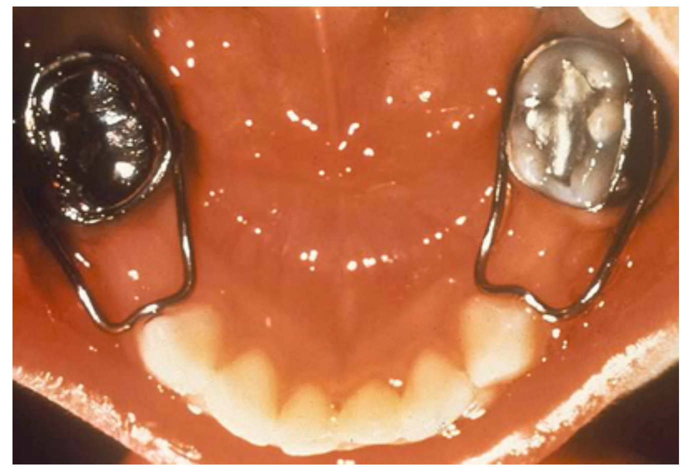
Primary Canine Loss (Cs)

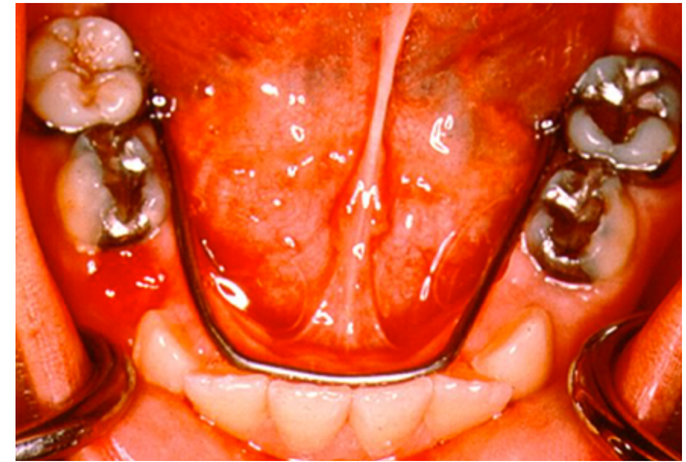


- Causes lingual collapse of incisors and therefore loss of arch length
- Lower lingual holding arch or Nance holding arch from permanent first molars
  - For LLHA, need to wait for once lower permanent incisors erupt because these commonly erupt lingually and can be trapped by the appliance

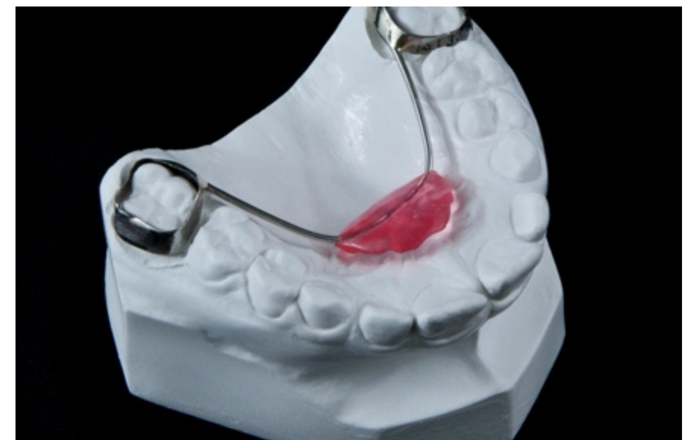


Primary First Molar Loss (Ds)

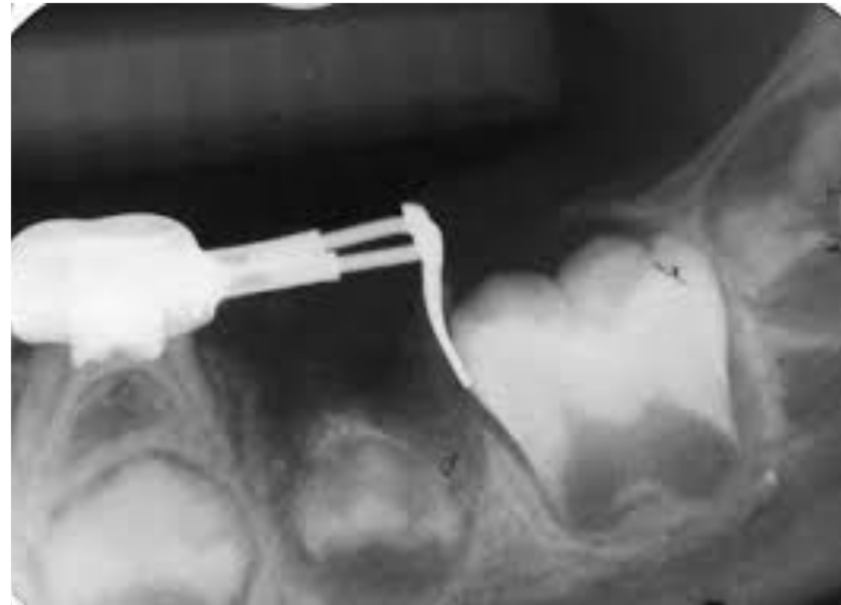




- Band and loop
- LLHA or Nance



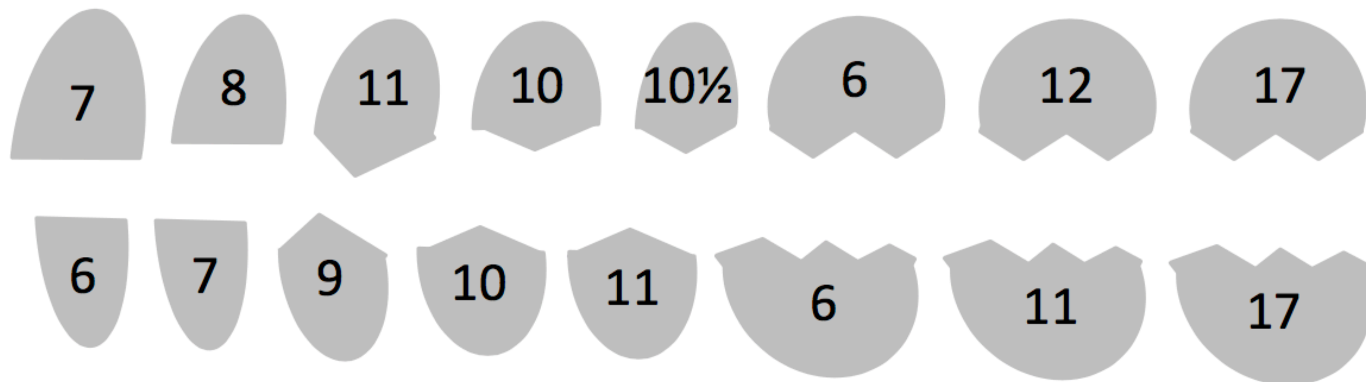
Primary Second Molar Loss (Es)



- Distal shoe from primary first molar to unerupted permanent first molar
- LLHA or Nance if permanent first molar is already erupted

Eruption Timing Variations

- Lower second molar ahead of second premolar → loss of leeway space for second premolar and *may* result in its impaction, use space maintainer to hold molars back
- Upper canine ahead of or alongside first premolar → canine forced labially, vampire fang
- Asymmetries between right and left sides → about 6 months is within normal limits, extract contralateral primary if there is early exfoliation to keep midline on

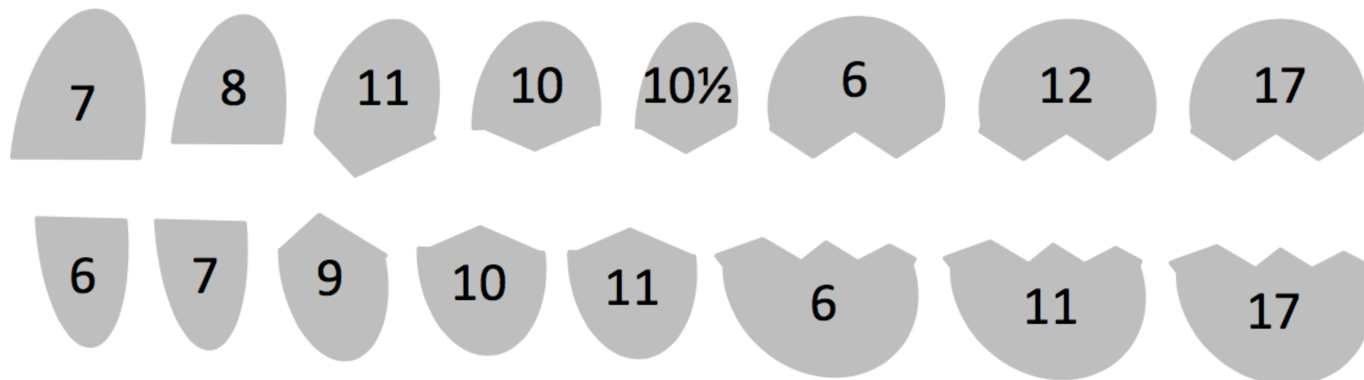


Amount of Root Development

- Space maintenance not necessary if no bone remaining between primary and permanent tooth
- Eruptive movement begins on crown completion
- Average tooth pierces bone with two-thirds root formation
- Average tooth pierces gingiva with three-fourths root formation

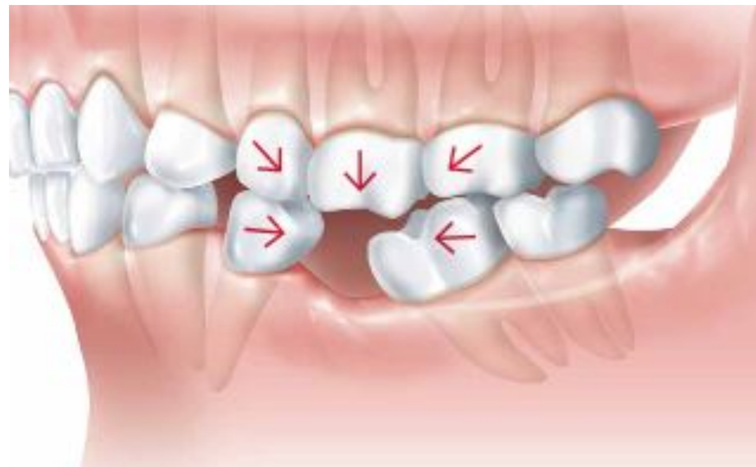
Rule of 7

- Primary molar lost before age 7 → eruption of premolar is delayed
- Primary molar lost after age 7 → eruption of premolar is accelerated



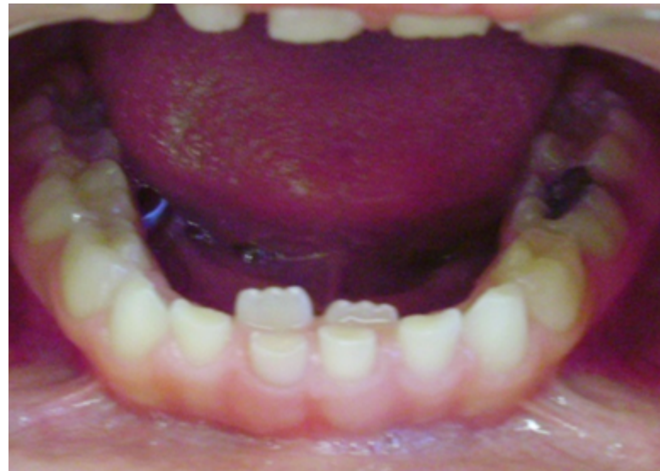
Space Closure

- Most occurs within the first 6 months after tooth loss
- Tipping not bodily movement
- Active eruption of a neighboring tooth tends to increase amount of space loss



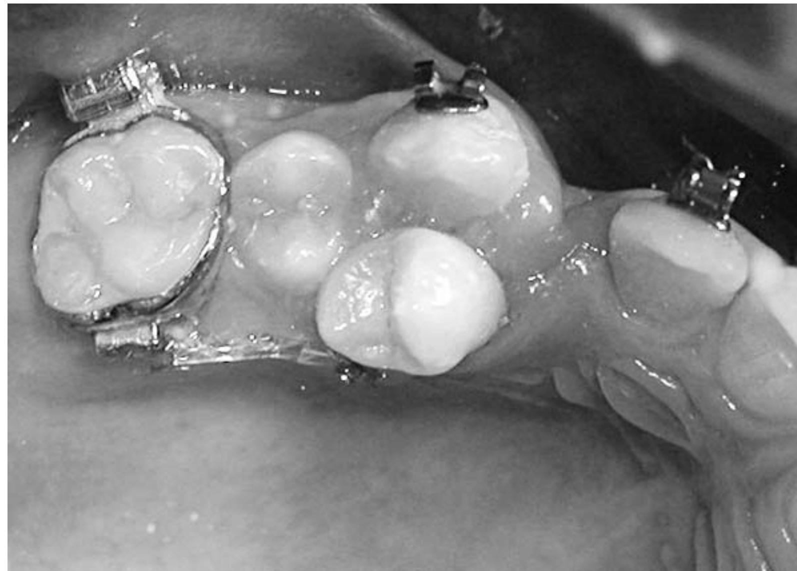
Ectopic Eruption of Incisors (1s)

- Lingual eruption → double row of teeth, will resolve on their own unless over-retained primary incisors
- Lateral eruption → due to early exfoliation of primary lateral, extract contralateral primary lateral ASAP to avoid midline deviation



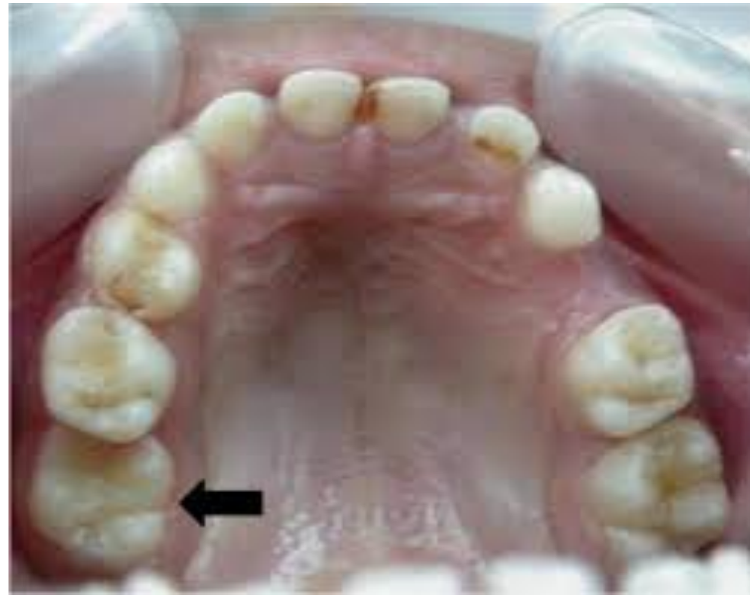
Ectopic Eruption of Premolars (4s, 5s)

- Distal eruption → most common in mandibular second premolar where it resorbs only distal root of primary second molar
- Buccal or lingual eruption → very common, extract primary molar if it is not ready to exfoliate within a few weeks



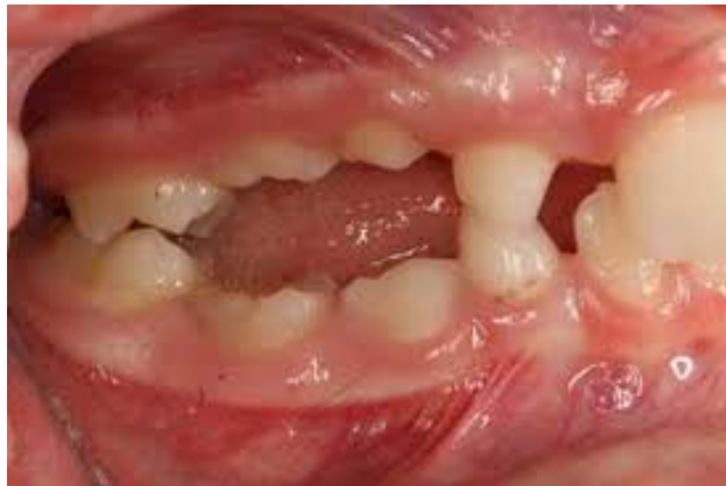
Ectopic Eruption of Molars (6s)

- Mesial eruption → get impacted underneath the distal aspect of the primary second molar
  - Spacer
  - Halterman appliance
- More common in maxilla



Ankylosed Primary Molars

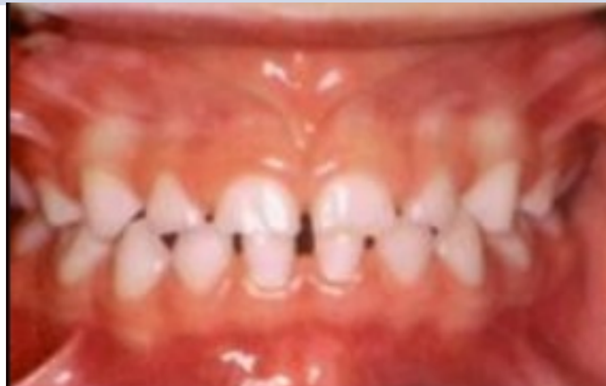
- Prevalence
  - 1% African-American, 4% Caucasian
  - More common in mandible
  - Es more common than Ds
- Diagnosis
  - Out of occlusion since other teeth continue normal eruption
  - No mobility
  - Hollow sound when tapped
  - Radiographic loss of PDL space
- Usually no treatment required, but if adjacent teeth are drifting resulting in space loss, extract and use space maintainer

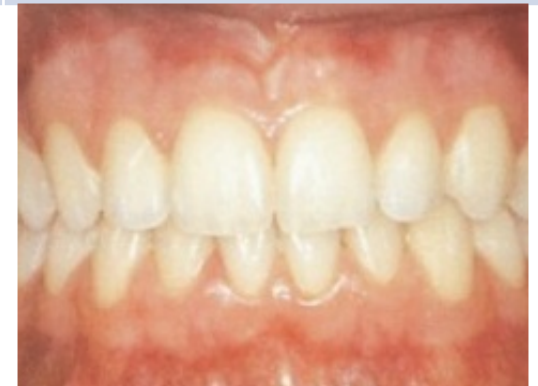


Pediatrics

Healthy Gingiva Features

Features	Children	Adults
Color	Reddish due to thinner epithelium, less keratinization, and greater vascularity	Coral pink
Contour	Rounded and rolled margins due to edema that accompanies eruption and prominent cervical ridges	Knife-edge margins
Consistency	Flabby due to less dense CT and lack of organized collagen	Firm and resilient
Texture	Lack of stippling due to shorter and flatter papilla	Stippling present
Sulcus	Deeper because soft tissue more easily splits up from tooth	Less deep





Gingivitis in Children

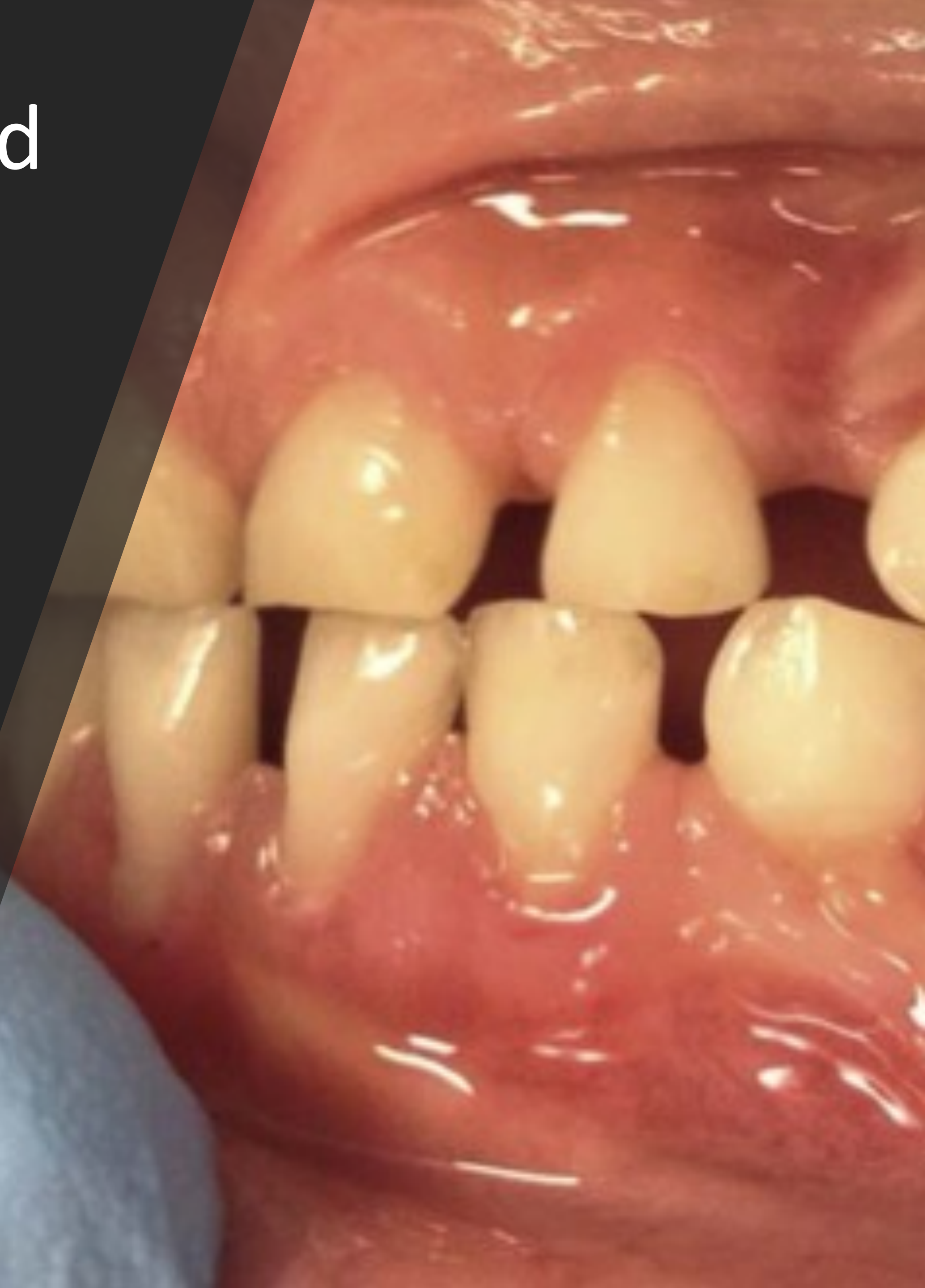
- Induced by plaque
- Parental participation in oral hygiene until age 8 due to lack of manual dexterity
- Mouth breathing, crowded teeth, erupting teeth, and braces may further aggravate inflamed gingiva
- Peaks at puberty

Acute Necrotizing Ulcerative Gingivitis (ANUG)

- Acute= painful, high fever
- Necrotizing= dying tissue, fetid breath
- Ulcerative= pseudomembrane on marginal gingiva
- Gingivitis= bleeding inflamed gums and blunted papillae
- Tx: debridement, oxidizing mouth rinse, and antibiotics

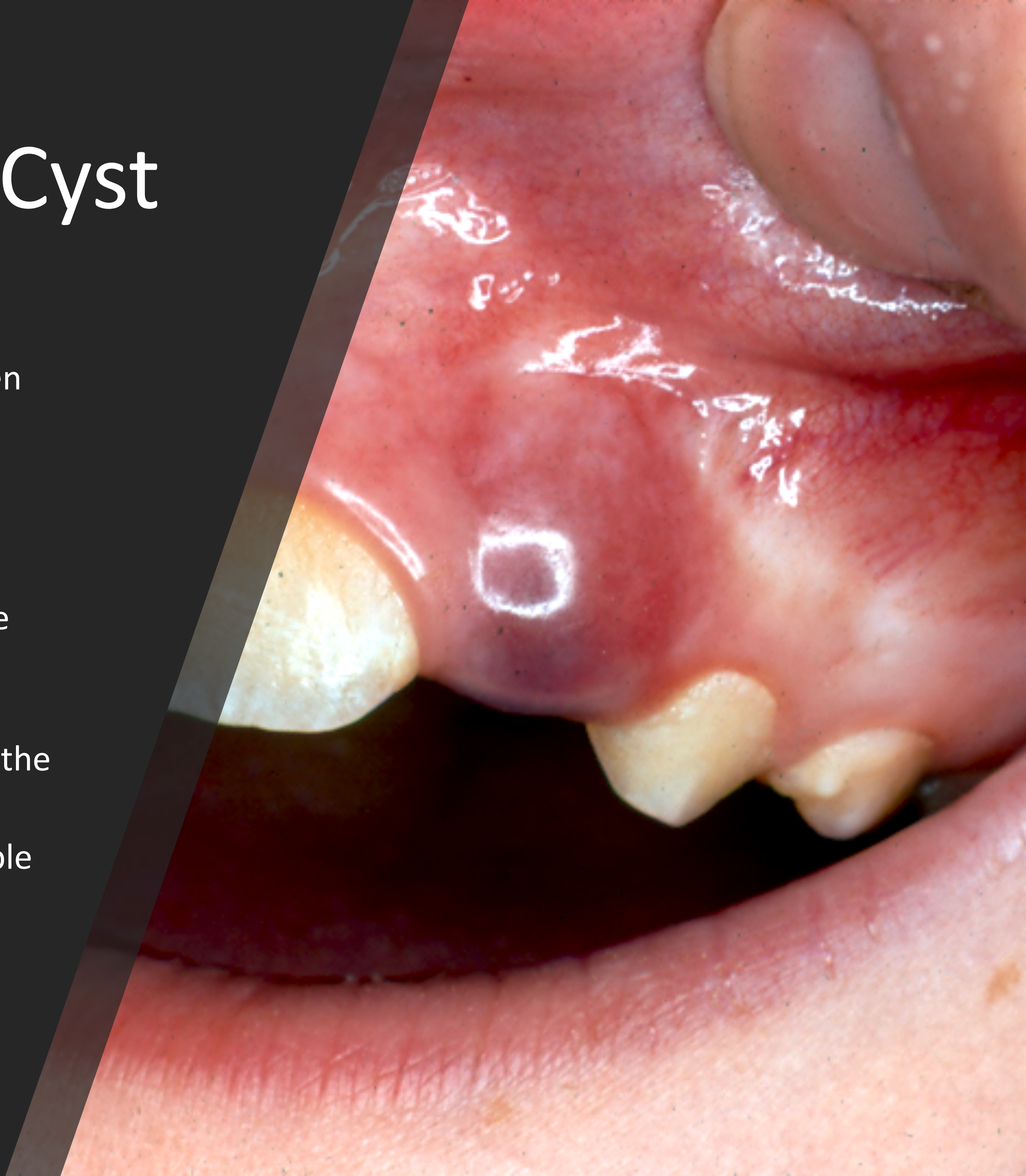
Reduced Attached Gingiva (RAG)

- Most common cause of inadequate attached gingiva is labial eruption path
- Orthodontics can help or hurt this
- Tx: orthodontics and/or graft
  - Free gingival graft → widen band of keratinized tissue
  - Connective tissue graft → root coverage



Eruption Cyst

- Most common in children
- Most common around incisors and mandibular first molars
- Presents clinically as a bump on the crest of the alveolar ridge where a tooth should be
- Radiograph will confirm the diagnosis
- Tx: usually nothing, simple surgical excision if symptomatic



High Frenum

- May be associated with gingival recession
- Tx: close space first, then frenectomy

Periodontitis in Children

- Loss of attachment and bone
- Localized aggressive periodontitis
  - Involves first permanent molars and permanent incisors
  - increased AA counts
  - Most common in AA children
  - Tx: surgical intervention and antibiotics
- Generalized aggressive periodontitis
  - Involves entire dentition
  - Increased plaque and calculus
  - Tx: surgical intervention and antibiotics
- Prepubertal periodontitis
  - Involves primary molars
  - Most common in AA children
  - Tx: debridement and antibiotics

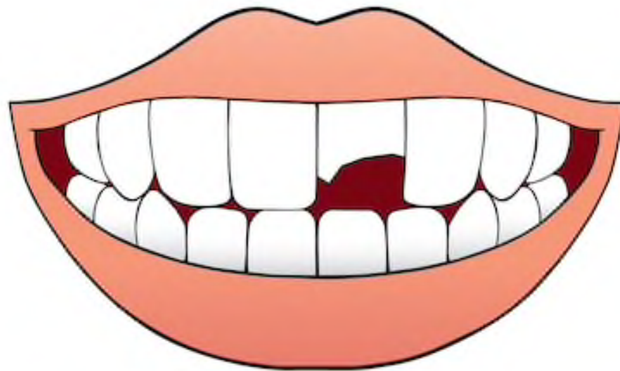
Pediatrics

Traumatic Dental Injuries (TDI)

- Minor injuries
  - Concussion
  - Craze lines
  - Enamel fractures
  - Enamel and dentin fractures
- Moderate injuries
  - Subluxation
  - Enamel/dentin/pulp involvement
- Major injuries
  - Luxations (intrusion, extrusion, lateral)
  - Avulsions
  - Alveolar fractures
  - Crown-root fractures

Dental Trauma in Children

- Boys more often than girls
- Maxillary anteriors most common
- Increased overjet (>6mm) more often

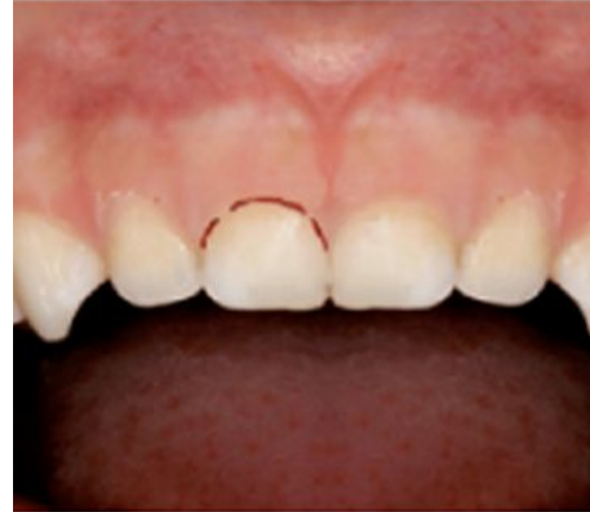


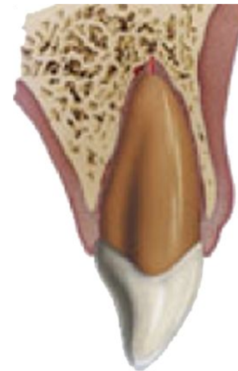
Medical History

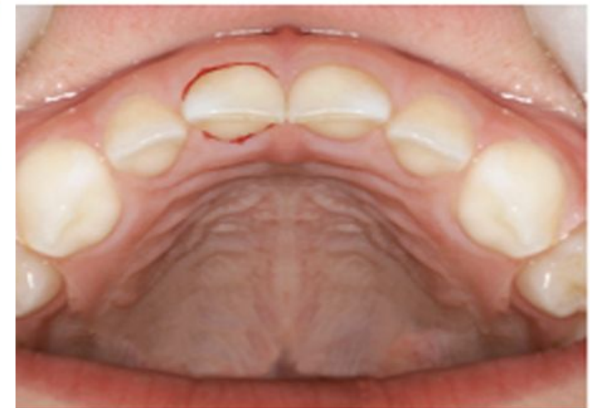
- Coagulation disorders
- Tetanus coverage
  - Active immunization is three tetanus, diphtheria, and pertussis (Tdap) vaccines during first year, booster at 1.5, 3, and 6 years and then every 4 to 5 years after
- Rule out head injury
  - Neurologic assessment of drowsiness, amnesia, blurred vision
- Radiographs at incident and follow-ups at 1, 2, and 6 months after

Concussion and Subluxation of Primary Teeth

- No treatment
- Recommend soft diet
- Reinforce OHI
- Teeth with open apices are more likely to remain vital after trauma
- Follow-ups

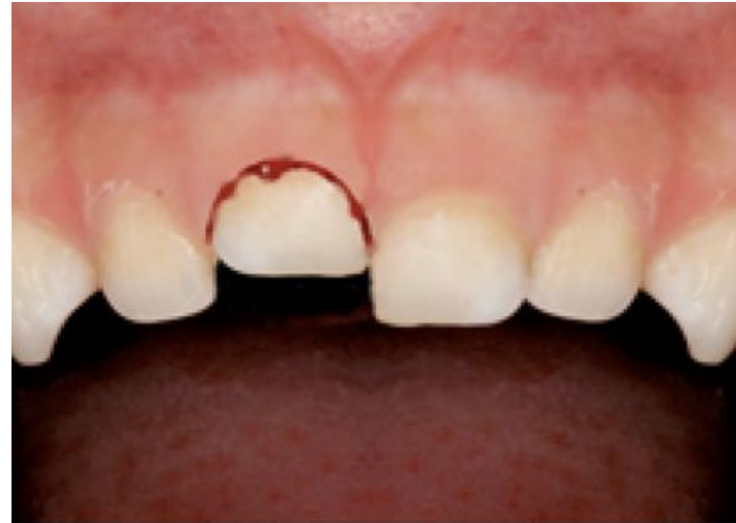


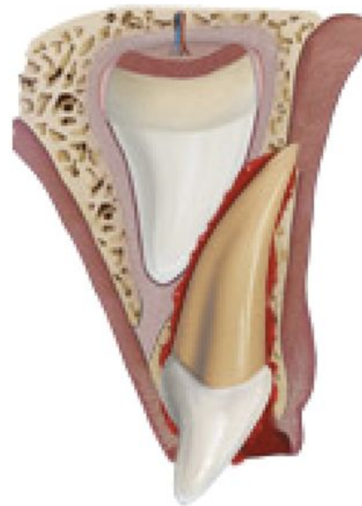


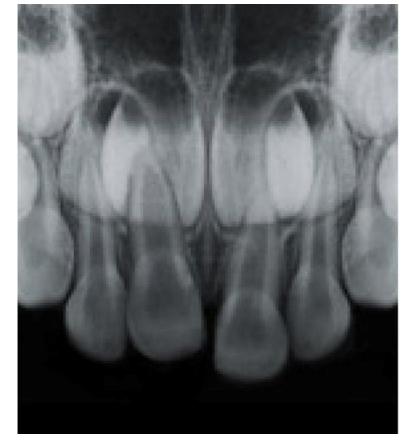


Intrusion of Primary Teeth

- No treatment and hope to spontaneously re-erupt
- May damage developing permanent teeth
  - Hypoplasia= during apposition
  - Hypocalcification= during calcification
  - Dilaceration= during root formation
- Follow-ups

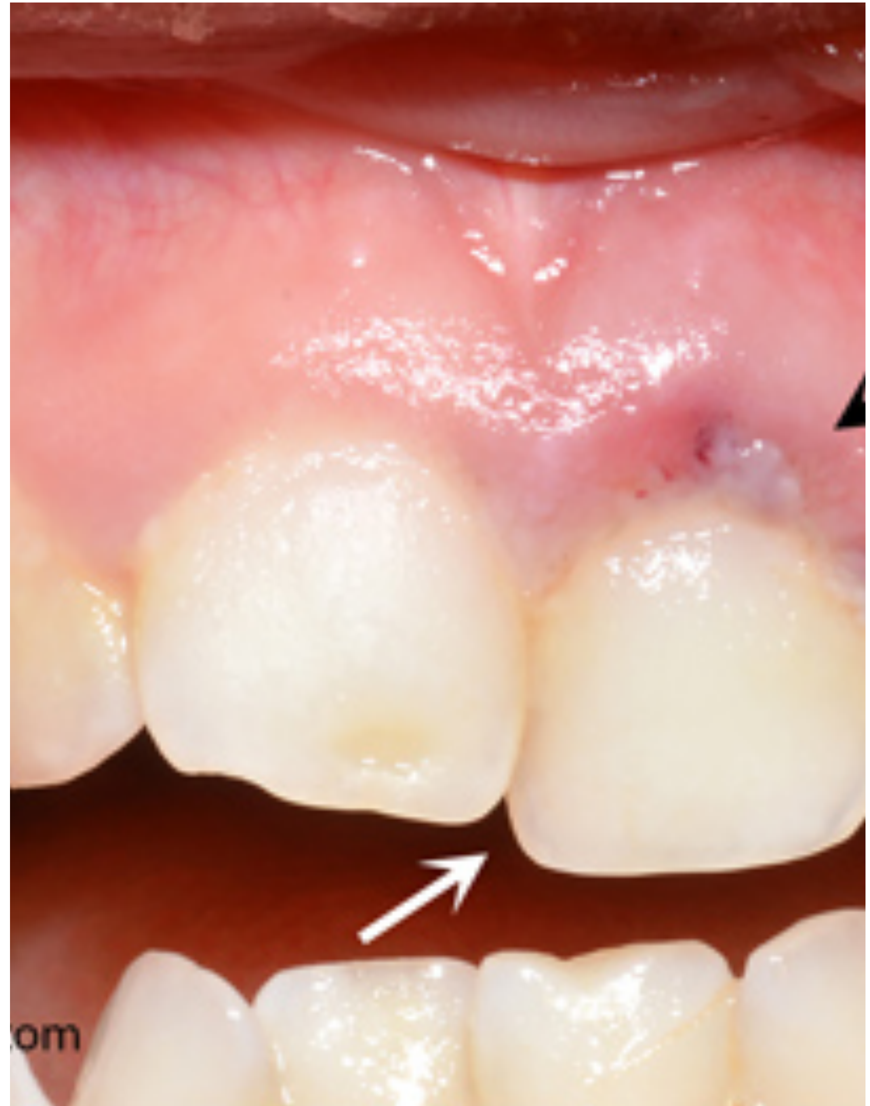






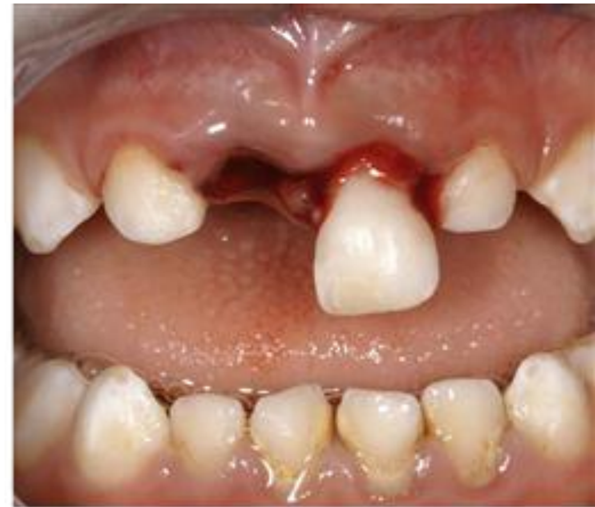
Extrusion of Primary Teeth

- Greater the distance of luxation, greater the chance of severing the apical vasculature and pulpal necrosis
- If extruded more than 3mm → extract
- If patient is seen before formation of periapical blood clot → reposition carefully, flexible splint for 1-2 weeks, endo treatment
- Follow-ups



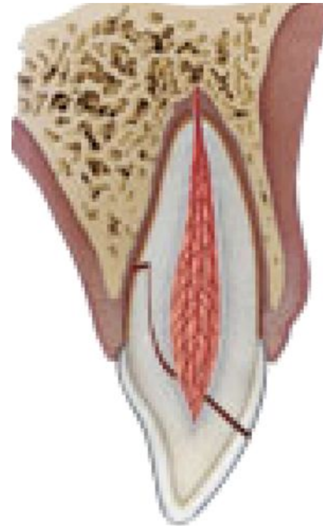
Avulsion of Primary Teeth

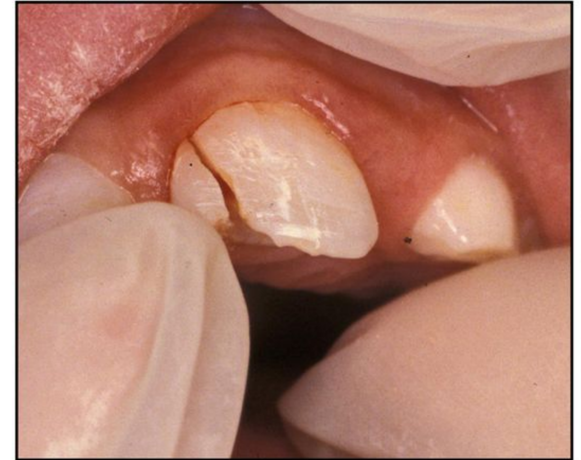
- Replantation of primary teeth has poor prognosis
- If <30 minutes → replant, flexible splint for 1-2 weeks, soft diet, antibiotics, and endo treatment
- If >30 minutes → extract and space maintenance as needed

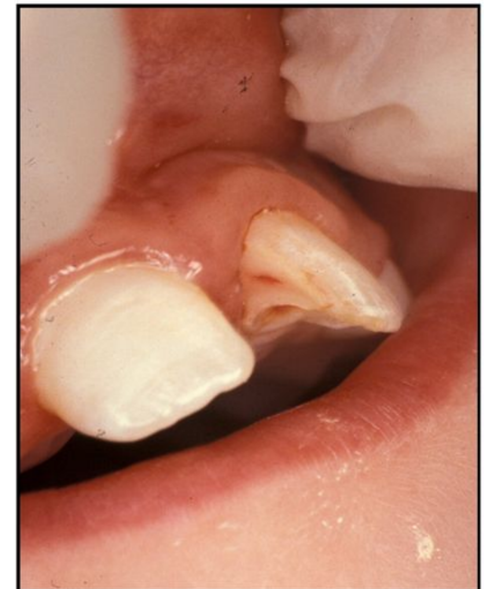


Crown Fracture of Primary Teeth

- Enamel → smooth
- Enamel and dentin → restore
- Enamel, dentin, and pulp →
  - Pulpotomy if vital
  - Pulpectomy if non-vital
  - Extract if pathologic root resorption

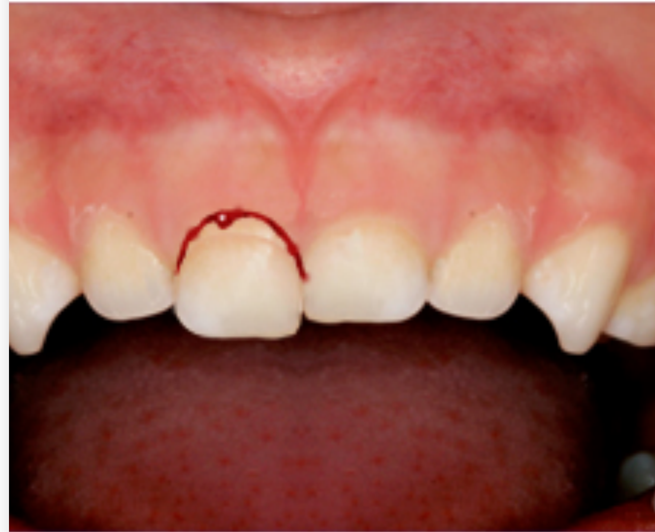
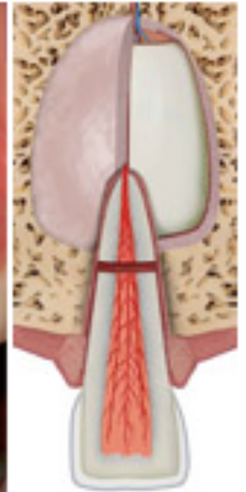
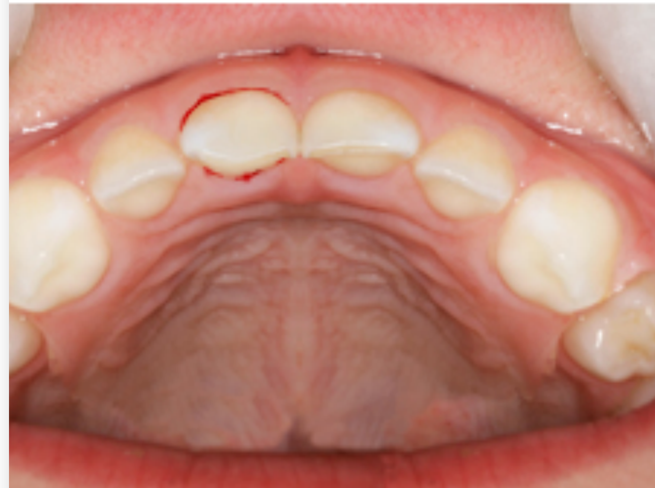
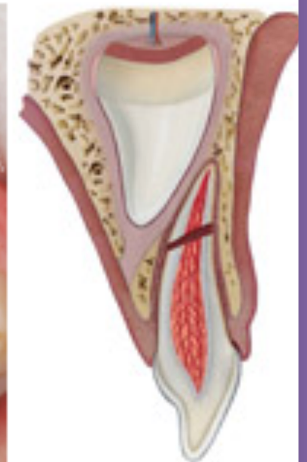






Root Fracture of Primary Teeth

- Rare due to malleability of young bone
- If apical half → no treatment
- If coronal half → rigid splint or extraction

Mouth Guards

- Helpful in preventing frequency and severity of dentoalveolar injuries
- Stock= available at sporting goods stores, inexpensive
- Mouth-formed= available at sporting goods stores
  - Boil and bite= softened in hot water then molded to teeth
  - Shell= firm outer shell and inner liner of ethyl methacrylate
- Custom-fabricated= impression taken by dentist
  - Vacuum-formed= suck down
  - Pressure-laminated= multiple layers, subject to less distortion

Root Resorption

- Internal (IRR)= odontoblastic layer in pulp is damaged
- External (ERR)= cementoblastic layer in PDL is damaged
  - Surface= normal PDL, small areas
  - Replacement= ankylosis, risk increases with long-term splinting
  - Inflammatory= granulation tissue, radiolucency
  - Cervical (CRR)= biologic width area, pink spot
  - Apical (ARR)= orthodontic forces

Child Abuse and Neglect

- Ages 0 to 3 are most commonly abused or neglected
  - Physical= intentional injuries
  - Emotional= denial of affection, isolation
  - Neglect= willful negligence to provide basic needs of a child
- Dentists are required by law to report suspected child abuse and neglect, even if there is no proof

Pediatrics

Cooperative

- Communicative, comprehending, and willing
- Minimal apprehension

Potentially Cooperative

- Capable of appropriate behavior, but are disruptive in dental setting
- Defiant= any age, spoiled and stubborn, do not like to be advised by adults
- Uncontrolled= 3-6 years old, tantrum
- Timid= 3-6 years old, may hide behind parents (shielding), may deteriorate into uncontrolled
- Tense-cooperative= 7 years or older, white knuckler, want to behave but very nervous
- Whining= continuous, usually no tears

Uncooperative

- Not communicative, comprehending, or willing
- Examples are infants and disabled

Frankl Rating Scale

- 1= definitely negative
- 2= negative resistance
- 3= positive acceptance
- 4= definitely positive

Descriptions	Score
Refusal/Distress	1
Uncooperative/Reluctant	2
Co-operative/Reserved	3
Interested/Enjoyed	4

Anticipatory Guidance

- Age-appropriate counseling for patients and their parents focused on prevention
- First dental visit should be by 1 year old

Familiarization

- No-treatment dental visit with an emphasis on introducing the dental setting and common instruments

Functional Inquiry

- Questionnaire or interview
- Allows you to learn chief complaint and estimate behavior

Knee-to-Knee Exam

- For infants (<2 years old)
- Clinician and parent in a knee-to-knee position with the child's head in the dentist's lap

http://www.jdentaled.org/content/74/4/363/tab-figures-data

Five Domains of Pediatric Patient Management

- Physical domain= papoose board, belt, tape
- Pharmacological domain= anesthetics, sedatives, nitrous oxide
- Reward-oriented domain= reinforcement
- Aversive domain= punishment
- Linguistic domain= communication

Behavior Shaping

- Slowly develop behavior by reinforcing successive approximations to a desired goal
- Ask to open wide → patient only opens a little bit → still positive reinforcement
- Reinforcement should always be immediate and specific to the desirable behavior

Aversive Conditioning

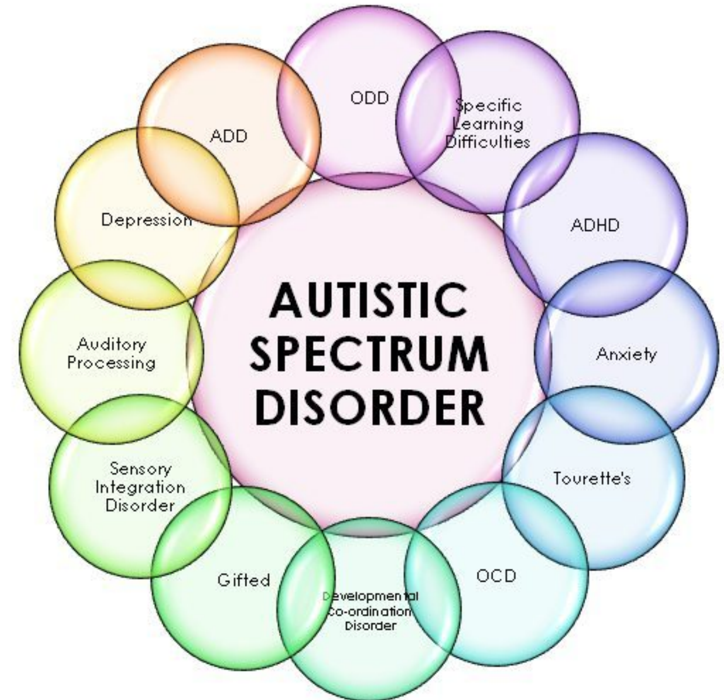
- Punish with the purpose of extinguishing or improving negative behavior
- Not for timid and tense-cooperative
- Voice control= speak in firm tones
- Hand-over-mouth (HOM)= gently place hand over patient’s mouth to gain attention of uncontrolled

ADHD

- Inattentive (AD) and hyperactive (HD)
- More common in boys
- Most commonly first appears age 3 to 6
- Three most common psychostimulant medications:
  - Methylphenidate (Ritalin)
  - Atomoxetine (Strattera)
  - Amphetamine (Adderall)

Autism

- Condition related to brain development that impacts how a person perceives and socializes with others
- Spectrum refers to wide range of symptoms
  - Repetitive behavior
  - Heightened sense of light and sound



Local Anesthesia in Children

- 4.4mg/kg is maximum recommended dose of anesthetic
- IAN innervates all lower teeth
- PSA innervates upper primary molars
- ASA innervates upper primary anteriors

Nitrous Sedation in Children

- Minimum alveolar concentration (MAC) is the concentration required to render 50% of patients immobile
- MAC of nitrous oxide is 105%
- Protocol
  - Fill bag with oxygen and place hood on patient's nose with flow rate of 4-6 L/min
  - Increase nitrous in 10% increments up to about 30% for operative procedures
  - Nausea is most common complication
  - Diffusion hypoxia= lungs fill with nitrous after stopping it, so always give patients 100% oxygen for 3-5 minutes after
- Contraindications
  - <2 years old
  - Uncooperative
  - Wheezing episode (mild to moderate asthma is okay)

Four Plateaus of Stage I Anesthesia

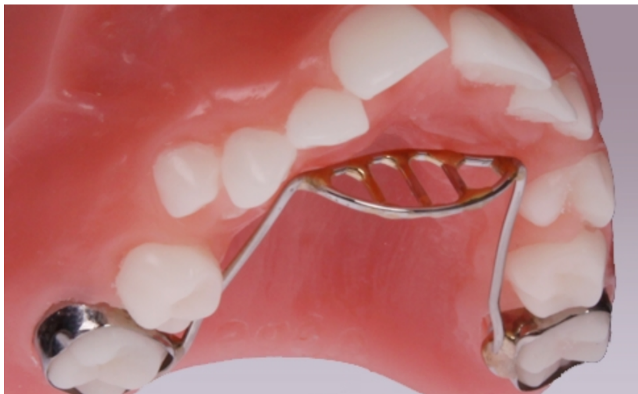
- Paresthesia= tingling
- Vasomotor= warm
- Drift= floating, target analgesia for nitrous sedation
- Dream= eyes closed, jaw sag

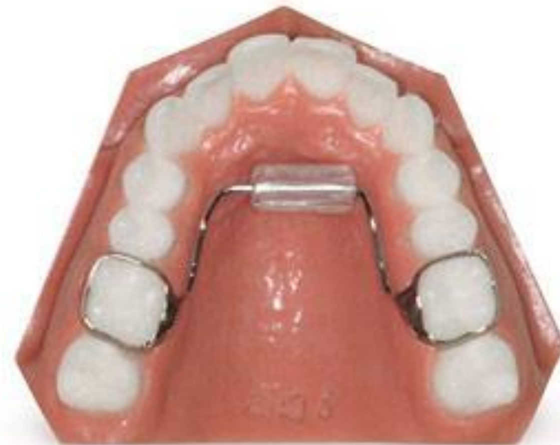
Fluoride for Children

- Prescription only
- For children at risk for caries who live in nonfluoridated areas
- ≤3 years old → fluoride drops, because children this young have difficulty chewing and swallowing tablets
- >3 years old → fluoride tablets and lozenges
- >6 years old → fluoride mouth rinse
  - 0.2% NaF solution weekly
  - 0.05% NaF solution daily

Thumbsucking

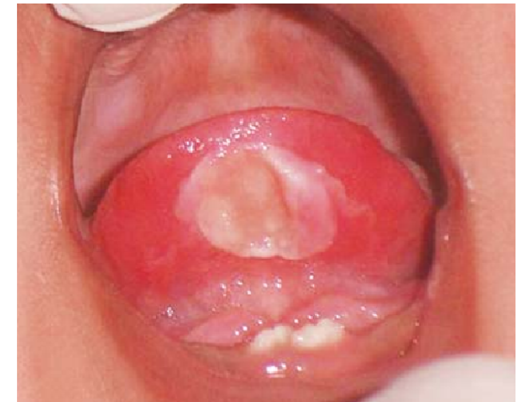
- Very common up to age 3
- Depends on time per day, duration, and intensity
- Effects are increased overjet, anterior open bite, maxillary constriction, and posterior crossbite
- Intervention with appliance therapy recommended by age 5 or 6
- Crib= stainless steel fixed reminder appliance in anterior palate region
- Bluegrass= fixed reminder appliance with roller in anterior palate region





Natal and Neonatal Teeth

- Natal teeth= present at birth
- Neonatal teeth= erupt within first 30 days
- Most common are primary mandibular incisors (first teeth to erupt anyway)
- Riga-Fede Disease= baby tooth causing ulceration on ventral tongue, smooth or extract it
- May cause nursing difficulties



Early Childhood Caries (ECC)

- Also called baby bottle syndrome because affected children often put to bed with bottle
- Any dmft on patient younger than age 6
- Breastfeeding before bed should be stopped after first primary tooth erupts
- Other causes
  - Constipation → fruit juice consumption → ECC
  - Ear infections → chronic antibiotic use with high sucrose content → ECC
- Recommendations
  - Infants should drink from a cup as they approach age 1
  - First dental visit by age 1
  - Smear of toothpaste before age 2
  - Pea of toothpaste between age 2 and 5