PEDIATRIC DENTISTRY: THE NEW, THE TRIED, AND THE TRUE

Kecia Leary, DDS, MS
Associate Professor Pediatric Dentistry (Clinical)
Director of Pediatric Dental Outreach
I have no conflict of interest with any organization!
Understand current treatment planning guidelines in pediatric dentistry.

Know the restorations that are available to pediatric patients;

- Current philosophies on stainless steel crowns
- Current philosophies on pulpal therapies in primary teeth.

Understand the resources that are available to providers seeing pediatric dental patients.
PREVENTION TOPICS

- Age 1 dental visit—Why is it Important
- Common Conversations
  - Bedsharing/family bed
  - Using fluoride toothpaste
  - Homeopathic medications and teething
What is the Concern

- Children with early preventive visits from dentists
  - More likely to have subsequent dental care
  - Greater expenditures than children without preventive care
- No relation to increased treatment cost when same information was delivered from a PCP
- Secondary data analysis from Alabama Medicaid
Shift from private to public insurance from 1997-2014.

- Decrease in level of unmet dental needs only for public insurance.
- Dental needs have the potential to be addressed earlier in a preventive manner
  - lower unmet dental needs in the future.
- Role of public insurance is more clear than private
FOR IMMEDIATE RELEASE

Contact:
Erika Hoett
erika@aapd.org
312.337.2169

Natalie Matthews
matthewsnp@ada.org
312.440.2806

AAPD and ADA Reaffirm Importance of Early Childhood Dental Visits

CHICAGO, March 1, 2017 – In light of a recent study published in the Journal of the American Medical Association Pediatrics, the American Academy of Pediatric Dentistry (AAPD) and the American Dental Association (ADA) today reaffirmed their strong support for early dental visits to prevent childhood tooth decay.

The study examined Medicaid-covered children in Alabama, comparing cavity-related treatment among children who were provided preventive dental services by a dentist, primary care provider and those receiving none at all. While the authors “observed little evidence of the benefits” of preventive care, the results must be scrutinized carefully. The authors noted the study’s limitations, including the lack of information about oral health behaviors.

“As the authors state, this study design did not allow for evaluation of factors such as a genetic predisposition, previous disease and environmental considerations such as diet, frequency of brushing and flossing, the use of fluoride toothpaste and drinking fluoridated water, all of which are crucial in reducing the risk of cavities,” said Mia L. Geisiger, D.D.S., M.S.
Use of administrative data to examine dentists’ practice patterns

Less than 1 in 5 dentists actually submitted a claim for treating a child <2 years old

Proportion of dentists treating children <2 years old has risen significantly
  - Women
  - In metropolitan areas
  - U of I graduates

Inability for pediatric dentists to see all the children

Who Is Seeing Pediatric Patients—Even with Private Insurance

Why Do We See Children at Age 1

- What is done at an Age 1 visit
  - Counseling on infant oral hygiene
  - Fluoride therapies
  - Dietary counseling
  - Information about habits and injury prevention

- Age 1 visit
  - More preventive visits

- Later visit
  - Subsequent preventive, restorative, and emergency visits

Bedsharing is significantly associated with children who are nonwhite racial background, older, healthy, and live with a single mother.

Bedsharing is associated with increased nighttime breastfeeding and bottle-feeding habits.

Breastmilk

- HBM did not cause a drop in plaque pH
- HBM supported moderate bacterial growth
- Buffer capacity of HBM is very poor
- HBM alone did not cause enamel decalcification

HBM is not cariogenic in an in vitro model, unless another carbohydrate source is available for bacterial fermentation

Ped Dent 21(2): 86-90, 1999
What We Advocate About Toothpaste

- Tooth brushing with fluoridated toothpaste prevents caries
- Decay reducing benefits of fluoride have been extensively documented
- Critical time period for fluorosis of the permanent incisors appears to be 22-26 months
- Risks of fluorosis must be weighed against the risk for caries

JADA 140(6): 628-631, 2009
Fluoride Toothpaste Recommendations

- Smear layer of fluoride toothpaste
- No more than a grain of rice
  - Enough for taste
  - Cheaper than training toothpaste
- Benefits are topical
Teething

The U.S. Food and Drug Administration (FDA) is warning consumers that homeopathic teething tablets and gels may pose a risk to infants and children. The FDA recommends that consumers stop using these products and dispose of any in their possession.

Homeopathic teething tablets and gels are distributed by CVS, Hyland’s, and possibly others, and are sold in retail stores and online. Consumers should seek medical care immediately if their child experiences seizures, difficulty breathing, lethargy, excessive sleepiness, muscle weakness, skin flushing, convulsion, difficulty swallowing, or agitation after using homeopathic teething tablets or gels.

"Teething can be managed without prescription or over-the-counter remedies," said Janet Woodcock, M.D., director of the FDA’s Center for Drug Evaluation and Research. "We recommend parents and caregivers not give homeopathic teething tablets and gels to children and seek advice from their health care professional for safe alternatives.

The FDA is working to promote public health by making sure that all products intended for human use are safe and effective, and that patients have a good understanding of their use and risk. We urge all parents and caregivers to choose to use these products only if they are informed about the potential risks and benefits, and if they are comfortable with the product being used.

Homeopathic teething tablets and gels have not been evaluated or approved by the FDA for safety or efficacy. The agency is also not aware of any proven health benefit of the products, which are labeled to relieve teething symptoms in children.
Bedsharing and how we discuss the topic

Age 1 Dental Visit

Homeopathic Medications
Basic Behavior Guidance

- Tell-Show-Do
- Nonverbal Behavior Guidance
- Positive Reinforcement
- Distraction
- Voice Control
- Escape
- Parental Presence/Parental Absence
- Nitrous Oxide
- Techniques ranked by parental acceptance in four similar studies.
- However, the acceptance of oral sedation and general anesthesia was related to the out-of-pocket cost; as this increased, acceptance decreased.
- Parental acceptance also changes with severity of pain.
- Parental experience with a technique increased acceptance.
- Parental acceptance continues to change with time.

PED DENT 38(1): 30-36, 2016

### Table 8: Techniques Ranked by Parental Acceptance in Four Similar Studies

<table>
<thead>
<tr>
<th>Ranking</th>
<th>Murphy et al. (1984)*</th>
<th>Lawrence et al. (1991)*</th>
<th>Etan et al. (2003)**</th>
<th>Present study†</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tell-show-do</td>
<td>Tell-show-do</td>
<td>Tell-show-do</td>
<td>Sedation</td>
</tr>
<tr>
<td>2</td>
<td>Positive reinforcement</td>
<td>N₂O</td>
<td>N₂O</td>
<td>GA</td>
</tr>
<tr>
<td>3</td>
<td>Mouth prop</td>
<td>Voice control</td>
<td>GA</td>
<td>Active restraint</td>
</tr>
<tr>
<td>4</td>
<td>Voice control</td>
<td>Active restraint</td>
<td>Active restraint</td>
<td>Passive restraint</td>
</tr>
<tr>
<td>5</td>
<td>Physical restraint, dentist</td>
<td>Hand-over-mouths</td>
<td>Oral pre-medication</td>
<td>Voice control</td>
</tr>
<tr>
<td>6</td>
<td>Physical restraint, assistant</td>
<td>Papoose Board</td>
<td>GA</td>
<td>Hand-over-mouth</td>
</tr>
<tr>
<td>7</td>
<td>Hand-over-mouth</td>
<td>Oral pre-medication</td>
<td>Passive restraint</td>
<td>Sedation</td>
</tr>
<tr>
<td>8</td>
<td>Sedation</td>
<td>GA</td>
<td>Hand-over-mouth</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>General anesthesia (GA)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Papoose Board</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Vertical lines (1) indicate mean values that were not significantly different between techniques (analysis of variance and Tukey test).
† Vertical lines (1) indicate mean values that were not significantly different between techniques (Wilcoxon two-sample test).
Basic Behavior Guidance

- Communication and Communicative Guidance
  - Request and Promises
  - Never ask a question you don’t want the answer to
  - Give choices, but......
  - Short and direct communication
  - Reframe the question
  - Kids are like pets
Set the Expectations

- My Rules, My House
- 3 Rules for My House (Just Like School)
  1. Hands on your belly or next to your side
  2. Open your mouth when I ask you to
  3. Listen with your ears
- I am going to
  1. Tell you what I’m going to do
  2. Show you what I’m going to do
  3. Then do it
- How is this appointment going to end
<table>
<thead>
<tr>
<th>What Words We Use</th>
<th>What Words We Use with Children</th>
</tr>
</thead>
<tbody>
<tr>
<td>Needle or shot</td>
<td>Sleepy juice</td>
</tr>
<tr>
<td>Drill</td>
<td>Whistle, water gun</td>
</tr>
<tr>
<td>Drill on a tooth</td>
<td>Clean a tooth, chase the sugar bugs</td>
</tr>
<tr>
<td>Pull a tooth</td>
<td>Wiggle a tooth</td>
</tr>
<tr>
<td>Decay, cavity</td>
<td>Sugar bug</td>
</tr>
<tr>
<td>Examination</td>
<td>Count teeth</td>
</tr>
<tr>
<td>Tooth cleaning</td>
<td>Tickle teeth</td>
</tr>
<tr>
<td>Explorer</td>
<td>Tooth counter</td>
</tr>
<tr>
<td>Rubber dam</td>
<td>Rain coat</td>
</tr>
<tr>
<td>Rubber dam clamp</td>
<td>Ring, Hugs your tooth</td>
</tr>
<tr>
<td>Nitrous Oxide</td>
<td>Magic air, Your going to float on a cloud</td>
</tr>
<tr>
<td>Stainless Steel Crown</td>
<td>Princess hat, Bling</td>
</tr>
<tr>
<td>Saliva Ejector</td>
<td>Straw</td>
</tr>
<tr>
<td>Behavior Score</td>
<td>Classification</td>
</tr>
<tr>
<td>----------------</td>
<td>--------------------</td>
</tr>
</tbody>
</table>
| Frankl 4       | Definitely positive | ++               | • Good rapport with the dentist  
• Interested in the dental procedures  
• Laughing and enjoying the situation |
| Frankl 3       | Positive           | +                | • Accepting of treatment but at times cautious  
• Willing to comply with the dentist, at times with reservation, but patient follows the dentist’s directions  
• Cooperative |
| Frankl 2       | Negative           | -                | • Reluctant to accept treatment  
• Uncooperative  
• Sullen, withdrawn |
| Frankl 1       | Definitely negative | - -              | • Refusal of treatment  
• Crying forcefully  
• Fearful |
What You Can Expect

▶ Under Age 3
  ▶ Parent is an active participant
  ▶ Limited expectations
  ▶ Knee-to-Knee examination
  ▶ Working to being a great patient

▶ Age 3 to School-Aged
  ▶ Are they in school
  ▶ Are they toilet trained
  ▶ Do they separate from the parent (in preschool)
  ▶ May need parent in the operatory

▶ Adolescent Patient
  ▶ Not small adults
  ▶ Behaviors in the chair are guided by events on the outside
Nitrous Oxide

- Can reduce mild to moderate anxious children
- Is only effective if used with communication too.
- Cannot use nitrous oxide alone
  - Patient must be able to follow directions
  - Patient must be able to breathe
  - Patient must not have any underlying lung problems
Guideline on Use of Nitrous Oxide for Pediatric Dental Patients

Originating Council
Council on Clinical Affairs

Review Council
Council on Clinical Affairs

Adopted
2005

Revised
2005, 2013

Purpose
The American Academy of Pediatric Dentistry (AAPD) recognizes nitrous oxide/oxygen inhalation as a safe and effective technique to reduce anxiety, produce analgesia, and enhance effective communication between a patient and health care provider. The need to diagnose and treat, as well as the safety of the patient and practitioner, should be considered before using nitrous oxide. By producing this guideline, the AAPD intends to assist the dental profession in developing appropriate practices in the use of nitrous oxide/oxygen analgesia/anxiolysis for pediatric patients.

Methods
This document is an update of the previous guideline revised in 2009. The revision is based on a review of the current dental and medical literature related to nitrous oxide use. An electronic search was conducted using PubMed® with the following parameters: Terms “nitrous oxide”, “analgesia”, “anxiolysis”, able, but require that the patient not move. It also may allow the patient to tolerate unpleasant procedures by reducing or relieving anxiety, discomfort, or pain. The outcome of pharmacological approaches is variable and depends upon each patient's response to various drugs. The clinical effect of nitrous oxide/oxygen inhalation, however, is more predictable among the majority of the population.

Nitrous oxide is a colorless and virtually odorless gas with a faint, sweet smell. It is an effective analgesic/anxiolytic agent causing central nervous system (CNS) depression and euphoria with little effect on the respiratory system. Nitrous oxide has a multiple mechanism of action. The analgesic effect of nitrous oxide appears to be initiated by neuronal release of endogenous opioid peptides with subsequent activation of opioid receptors and descending Gamma-aminobutyric acid type A (GABA_A) receptors and noradrenergic pathways that modulate nociceptive processing at the spinal level. The anxiolytic effect involves activation of the GABA_A receptor either directly or indirectly.
Who is a bad nitrous patient

- COPD, Congestive heart failure, sickle cell, acute otitis media, tympanic membrane graft, acute severe head injury
- Emotional disturbances or drug-related dependencies
- First trimester of pregnancy
- Treatment with bleomycin sulfate
- Methylenetetrahydrofolate reductase deficiency
- Cobalamin deficiency
Flow rate of 5-6 L/min
Start with 100% oxygen for a minute
Titrate to not more than 50% nitrous

How to Provide Treatment
Assistants must be trained

Clinical observation of patient’s:
- responsiveness, color, and respiratory rate
How to document nitrous

- Informed consent from the parent
- Chart should include
  - Indications for nitrous oxide
  - Nitrous oxide dosage (%N20/%Oxygen)
  - Duration of the procedure
  - Post Treatment Oxygen
What are We Talking About?

6 to 12 million children annually
Estimated costs $367 million-$1 billion
  - Consumer costs
  - Lost wages
  - School system expenses
Not a health hazard
Do not hop or jump—Can only crawl
Does not mean unclean
Person with active head lice has had an infestation for more than 1 month prior to diagnosis
School policies not to send children home

What is Your Practice

- Are you stigmatizing patients
- How many have you not caught with headlice
- What is your office protocol—is it a barrier to care
- Universal precautions
- Expensive to treat
New

• Parents are more a part of the visit.

Tried

• Behavior guidance techniques work. Go back to the basics, try nitrous, try T-S-D

True

• Parents attitudes are changing about what they want in their child’s visit.
TRAUMA and CVEK PULPOTOMY
IADT treatment guidelines for intrusion

Clinical findings
- The tooth is usually displaced through the labial bone plate or can be impinging upon the succedaneous tooth bud.

Radiographic findings
- When the apex is displaced toward or through the labial bone plate, the apical tip can be visualized and appears shorter than its contra lateral. When the apex is displaced towards the permanent tooth germ, the apical tip cannot be visualized and the tooth appears elongated.

Treatment
- If the apex is displaced toward or through the labial bone plate, the tooth is left for spontaneous repositioning.
- If the apex is displaced into the developing tooth germ, extract.

Follow-up
- 1 week – Clinical examination.
- 3-4 weeks – Clinical and radiographic examination.
- 6-8 weeks – Clinical examination.
- 6 months – Clinical and radiographic examination.
- 1 year – Clinical and radiographic examination, clinical and radiographic monitoring until eruption of the permanent successor.
Enamel-dentin-pulp fracture

IADT treatment guidelines for enamel-dentin-pulp fracture

Clinical findings
- Fracture involves enamel and dentin and the pulp is exposed

Radiographic findings
- The stage of root development can be determined from one exposure.

Treatment
- If possible, preserve pulp vitality by partial pulpotomy. Calcium hydroxide is a suitable material for such procedures. A well condensed layer of pure calcium hydroxide paste can be applied over the pulp, covered with a lining such as reinforced glass ionomer. Restore the tooth with composite.
- The treatment is depending on the child’s maturity and ability to cope. Extraction is usually the alternative option.

Follow-up
- 1 week – Clinical examination.
- 6-8 weeks – Clinical and radiographic examination.
- 1 year – Clinical and radiographic examination.
Patient & Parent Characteristics

- Child frightened
- 1st invasive dental treatment if child < 3 years
- Parent: upset and distressed
- Dentist: confidence and calmness are critical to success
  - defuses parent apprehension
Reference Manual Trauma Assessment

http://www.aapd.org/media/Policies_Guidelines/R_AcuteTrauma.pdf
Emergency Call

- Patient’s name, age, gender, address and telephone #
- When did injury occur?
  - Period between injury and treatment
- Where did injury occur?
  - Dirty location ➔ tetanus booster, antibiotics
- How did injury occur?
  - Gives clues to other injuries not readily apparent
- History of previous dental injuries?
General Health Information

- Cardiac and bleeding disorders, seizures
- Allergies and current medications
- Did the trauma cause:
  - Amnesia, unconsciousness, vomiting or headache—**ED REFERRAL**
  - What are some questions to ask to determine injury to Central Nervous System:
    - Can child walk a straight line?
    - Do both eyes focus on and follow objects?
    - Can child respond to commands?
    - Can child move head, neck, tongue, lips?
Dental History

- Rule out child abuse:
  - Check out story from child and adult separately if suspicious
  - Does the trauma seem plausible
- Spontaneous pain from the teeth?
- Teeth sore to touch or during eating?
- Disturbance in the bite?
- Thermal changes (air/temperature sensitivity)?
Examination and Diagnosis

- Clinical examination
  - Extraoral and Intraoral Soft Tissues
  - Hard Tissues—Alveolar Ridge and Dentition
    - Displacement, Fractures, Mobility, Missing Teeth, Pulp Exposures, Occlusion
- Radiographic examination
- Record documentation
Radiographic Exam

- Must to document baseline of tooth status
- Can be difficult due to the child’s ability to cope with the procedure
Radiographic Exam

- Verify presence/absence of tooth & tooth parts
- Evaluate proximity of crown fracture to pulp
- Diagnosis of periodontal injury
- Assess for root fracture
- Assess apical maturity
- Locate intruded teeth
Radiographic Exam

- For both primary and permanent teeth, several angles are recommended:
  - Occlusal exposure (size 2 film) gives excellent view of most lateral luxations, apical and mid-root fractures and alveolar fractures
Lateral Anterior View Radiograph for Intruded Primary Tooth

- Look for precise location of intruded tooth
- Extraoral film next to child’s cheek
  - perpendicular to radiographic beam
- Exposure time is doubled
Radiographs for Tooth Fragments

- Look for lacerations
- Take lip/cheek radiograph
- \( \frac{1}{4} \) the exposure time
Timing for Follow-Up Radiographs

- 3 weeks
  - Pulpal necrosis due to periapical radiolucencies
  - Inflammatory root resorption
- 6-7 weeks
  - Replacement resorption or ankyloses
Short Term Goals of Treatment

1. Elimination of pain
2. Protection of pulp
3. Suturing of soft tissue laceration
<table>
<thead>
<tr>
<th>Basic Post-Operative Trauma Instructions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good Oral Hygiene</td>
</tr>
<tr>
<td>Chlorhexidine</td>
</tr>
<tr>
<td>Soft Diet</td>
</tr>
<tr>
<td>Contact sports</td>
</tr>
<tr>
<td>Pacifier</td>
</tr>
<tr>
<td>Bottle/Sippy Cup</td>
</tr>
<tr>
<td>Lips</td>
</tr>
<tr>
<td>Follow-up</td>
</tr>
<tr>
<td>Pain</td>
</tr>
<tr>
<td>Antibiotics</td>
</tr>
</tbody>
</table>
Types of Fractures

Uncomplicated

Complicated
Uncomplicated Crown Fracture Primary Teeth

- Occlusal Radiograph (negative findings)
- No treatment
- Smooth Sharp Edges
- GI or Composite (not often)
- Tx is behavior dependent
- Follow-up 3-4 weeks
Discoloration

- Capillaries in the pulp occasionally hemorrhage
  - Leaves blood pigments in the dentinal tubules
- Does not mean tooth is nonvital
  - Especially if discoloration occurs within days after trauma
- No treatment unless esthetics is a concern and/or presence of clinical and radiographic pathology
- Monitor radiographically.

**Mild cases**: little discoloration occurs, blood is resorbed and tooth becomes lighter

**Severe cases**: discoloration persists for the life of the tooth
Metamorphosis and Necrosis

- Calcific Metamorphosis: no treatment needed
- Pulpal necrosis & abscess: extraction or pulpectomy
  - Signs and symptoms of necrosis:
    - mobility, pain, fistula or radiographic radiolucency
Complicated Crown Fracture Primary Teeth

- See a red point if pulp horn exposure
- Radiograph to determine
  - Extent of fracture
  - Stage of root development
- Extraction \( \Rightarrow \) in most cases
  - Extent of injury and child’s uncooperative behavior
- Pulp capping, partial pulpotomy, pulpectomy are alternatives
Root Fractures
Primary Teeth

- Radiograph: Apical 1/3
  - Most teeth maintain vitality and are minimally mobile
  - Tooth and apical fragment should resorb normally
- Follow-up:
  - Clinical exam in 1 week
  - Clinical and radiographic exams in 2-3 weeks, 6-8 weeks and in 1-year
Root Fractures Primary Teeth

- Radiograph: Middle or Cervical Third
  - Most teeth are mobile
  - Extraction is indicated if concerns with aspiration
  - Apical fragment should be left to be resorbed
  - Don’t disrupt permanent tooth bud
- Follow-up: Radiographic control after 1 year and every year until eruption of permanent successor
Crown-Root Fractures
Primary Teeth

- Clinical findings:
  - Fracture involves enamel, dentin, root and pulp may or may not be exposed
- Radiographic findings:
  - To determine the extent of fracture and stage of root development
- Treatment:
  - Extraction is recommended
- Follow-up:
  - Clinical and radiographic control in 1 month and 1 year
Classification
Injuries to the Periodontal Tissues of Primary Dentition
Concussion and Subluxation

**Concussion**
An injury to the tooth-supporting structures without increased mobility or displacement of the tooth, but with pain to percussion and without gingival bleeding.

**Subluxation**
An injury to the tooth supporting structures resulting in increased mobility and pain to percussion, but without displacement of the tooth. Bleeding from the gingival sulcus is evident if the child is seen shortly after the accident.
Concussion and Subluxation

- Occlusal radiograph: negative findings

- Palliative treatment only:
  - Avoid eating with involved teeth
  - Soft diet and analgesics
Intrusion

- Tooth driven into its socket
  - it is not loose
  - compression of the PDL and fracture of alveolar socket may occur
- More common in maxillary primary incisors
- Dangerous to the developing tooth bud
- Abscess is most likely adverse sequelae
Intrusion

No collision with permanent tooth bud

Collision with permanent tooth bud
Intrusion
No Contact to Permanent

- Radiographs: occlusal & lateral ant
- Intruded incisor does not contact the permanent tooth bud: apex displaced toward or through labial bone plate
- Allow to re-erupt (2 to 6 months)

Note slightly forshortened appearance of intruded right primary incisor compared to the non injured left primary incisor. The permanent tooth germ has identical position to the left, i.e. not tilted.
Intrusive Luxation
Contact with Permanent

- Extraction of primary intruded incisor
- Follow-up: yearly, radiographic monitoring until eruption of permanent successor
Extrusion

- Clinically elongated relative to adjacent tooth
- PDL is widened and gingival bleeding
- Alveolar socket bone remains intact
- Tenderness to percussion, excessively mobile
  - More mobility, more the blood flow is affected
- Radiograph: Occlusal exposure, increased PDL space
Extrusion

- Treatment based on:
  - Degree of displacement, mobility, root formation
  - Ability of child to cooperate
- Extraction recommended due to aspiration risk and damage of permanent tooth bud
- Follow-up after 1 year to monitor development of succedaneous tooth
Lateral Luxation

- Palatal/lingual, facial or lateral tooth displacement
  - Tooth is frequently non-mobile, PDL is torn
- Lateral luxations are complicated by fracture of either labial or palatal/lingual alveolar bone
  - If both sides of the alveolar socket have been fractured, the injury should be classified as an alveolar fracture.
Lateral Luxation

- Percussion test: usually high metallic (ankylosis) sound
- Radiograph: Occlusal exposure, increased PDL space
Lateral Luxation Treatment

- **Spontaneous repositioning:** no occlusal interference, allow the tooth to reposition spontaneously
- **Repositioning:** occlusal interference, apply local anesthesia where the tooth should be repositioned by gentle combined labial and palatal pressure
- **Extraction:** for teeth with severe displacement
Avulsion
Primary Teeth

- Radiograph: to ensure missing tooth is not intruded
- **Do not re-implant!**
- No concern with space loss if primary canines are present
- If primary tooth is lost prematurely, permanent teeth may delay eruption by 1 to 2 years due to fibrotic scar tissue in eruption path
Injury group: Permanent teeth

- Concussion
- Subluxation
- Extrusion
- Lateral luxation
- Intrusion
- Avulsion
- Infraction
- Enamel fracture
- Enamel-dentin fracture
- Enamel-dentin-pulp fracture
- Crown-root fracture without pulp involvement
- Crown-root fracture with pulp involvement
- Root fracture
- Alveolar fracture
Enamel-dentin-pulp fracture

IADT treatment guidelines for enamel-dentin-pulp fracture

Clinical findings
- A fracture involving enamel and dentin with loss of tooth structure and exposure of the pulp.
- Normal mobility.
- Percussion test: not tender. If tenderness is observed, evaluate for possible luxation or root fracture injury.
- Exposed pulp sensitive to stimuli.

Radiographic findings
- Enamel-dentin loss visible.
- Radiographs recommended: periapical, occlusal and eccentric exposures, to rule out tooth displacement or possible presence of root fracture.
- Radiograph of lip or cheek lacerations to search for tooth fragments or foreign materials.

Treatment
- In young patients with immature, still developing teeth, it is advantageous to preserve pulp vitality by pulp capping or partial pulpotomy. Also, this treatment is the choice in young patients with completely formed teeth.
- Calcium hydroxide is a suitable material to be placed on the pulp wound in such procedures.
- In patients with mature apical development, root canal treatment is usually the treatment of choice, although pulp capping or partial pulpotomy also may be selected.
- If tooth fragment is available, it can be bonded to the tooth.
- Future treatment for the fractured crown may be restoration with other accepted dental restorative materials.

Follow-up
- 6-8 weeks – Clinical and radiographic examination.
- 1 year – Clinical and radiographic examination.
- Cvek Pulpotomy
  - Anesthetic
  - Rubber Dam Isolation
  - Sterile 330 bur with copious amounts of water
  - NaOCl on a cotton ball for 5 minutes
  - Heme Controlled
- CaOH
- Vitrebond

Treatment Provided
New
• Dentaltraumaguide.org

Tried
• Cvek Pulpotomy

True
• Emergencies Will Always Happen
Advantages of Isolation

- Better access and visualization
- Moisture control
- Safety of the child
  - prevents aspiration and swallowing foreign bodies
  - protects soft tissue
- Decreases operating time
- Acts as a separating barrier
- Child may become more of a nasal breather
- Standard of care
- Pediatric dentists are more likely than general dentists to use a rubber dam in removal of deep carious lesions.
- Students are taught to use RD’s, but don’t use them out of practice.
- PD’s are more likely to use RD’s, especially if they are seeing a high proportion of government insurance.
- Isolites and Isovacs.

JADA 148(2): 64-74, 2017
In a study of patients getting sealants

- 74% of patients would prefer cotton roll isolation if we do it again
- 88% of the operators would prefer Isolite if we did it again
- Cotton roll isolation took an average of .8 minutes per side longer

Patient Acceptability (Statistically Significant)

- Stretched mouth, cheeks and lips the most—I
- More comfortable—CR
- Allowed you to breathe more easily—CR
- More Pressure in the mouth—I
- Gave greater peace of mind—CR

AAPD Abstract 2016

Isolite® Vs Cotton Roll Isolation In the Placement of Dental Sealants: A Clinical Trial
W-3 Clamp

Young’s Frame and Rubber Dam
Remember When You Were a Dental Student
Those Days Are Over
What Do I need to Remember?

- Tie floss on clamp
- Rubber Dam goes under the bridge
- Use the split technique
- Clamp on the most posterior tooth possible
  - Can even use this on the permanent tooth, just adjust the slit
DO WE STILL REMOVE ALL THE DECAY

- IPC versus traditional pulpotomy
- Stepwise caries excavation
- IRT
- Hall Crown
- Formocresol
  - Success rates 70% to 97% (Radiographic & Clinical)
  - Toxic, need to dilute
  - Amount used in pediatric dentistry is below the FDA recommended doses
  - Longest history
- Ferric Sulfate
  - Success rates 84% (However this was only clinical success not radiographic success)
- Sodium Hypochlorite
  - Success rates (80-92%). (Vostek study, 2011)
  - Retrospective studies
  - Currently being used in several places
- MTA
  - Success rates of 93%
  - Very expensive
Rubber dam isolation
Access coronal pulp in decay removal
De-Room Chamber
Amputate pulp using a slow speed handpiece with a #6 round bur in reverse (or a spoon)
Blot the hemorrhage with a cotton ball (should not be shooting out blood)
Place hemostatic agent for 5 minutes
Remove the cotton ball
Place IRM
Place a stainless steel crown

Technique
Carious Exposure

- Note splayed orifices and widely spaced pulp horns
Primary Molar Access Openings

- Bad
- Better
- Good
Access Opening Typical of Adult Endo
Still Not Large Enough For Pedo

- Distal Canal Orifice Not Accessible with round bur
Inadequate Access
Incomplete Removal of Coronal Pulp
Large Access Opening

- Allows complete removal of coronal pulp
- Allows direct visualization and access to amputate radicular canals
Large Access Opening = Convenience Form for Canal Orifice Amputation
Adequate Access Opening

- All Canal Orifices Visible
Slow Speed Round Bur in Reverse

- Need direct access, non-flexible
- Reverse = Remove pulp tissue with less risk of perforation
Placement of Medicaments
Formocresol Pulpotomy
Complete Caries Removal?

- Survey between PD, ED, and GD about how they handle DCL
- PD more likely than GD to remove carious tissue partially
- Evidence to support conservative caries removal criteria
  - Preserves pulpal health and tooth structure

JADA 148(2): 64-74, 2017
At 3 years
IPP--96.2% survival rate
FCP--65.8% survival rate
FSP--62.9% survival rate
**Must have correct pulpal diagnosis**
Radiographic and clinical symptoms should be part of the original diagnosis
Only extracted teeth were considered a failure

- Pulpotomies (96.8%) survival rate
- IPC (94.4%) survival rate
- Statistically not different

**INDIRECT PULP CAP**

Primary Tooth

- No pulpitis or reversible pulpitis
- Pulp is clinically and radiographically vital
  - No internal/external root resorption
- Do not always recommend two steps
- Place a liner
  - GI cement or GI
  - ZOE*
  - ITR
  - CaOH*
- Liner must be well sealed

Permanent Tooth

- No pulpitis or reversible pulpitis
- Pulp is clinically and radiographically vital
  - No internal/external root resorption
- Can be done in one or two-steps
- Place a liner
  - CaOH*
  - Dentin bonding agent
  - Glass ionomer
- Liner must be well-sealed
Restoration of Anterior Teeth
ITR (Interim Therapeutic Restorations)
- Young patients
- Uncooperative patients
- Special health care needs patients
- Reduces cariogenic bacteria
- High caries, limited resources
- Step-wise excavation in children with multiple lesions

New Terminology on an Old Procedure
Policy on Interim Therapeutic Restorations (ITR)

Originating Council
Council on Clinical Affairs

Review Council
Council on Clinical Affairs

Adopted
2001

Revised

Purpose
The American Academy of Pediatric Dentistry (AAPD) recognizes that unique clinical circumstances can result in challenges in restorative care for infants, children, adolescents, and persons with special health care needs. When circumstances do not permit traditional cavity preparation and/or placement of traditional dental restorations or when caries control is necessary prior to placement of definitive restorations, interim therapeutic restorations (ITR) may be beneficial and are best utilized as part of comprehensive care in the dental home. This policy will differentiate ITR from traumatic(alterative techniques (ART) and describe the circumstances for its use.

Methods
This updated policy is based upon a review of current dental literature. Database searches were performed using key words "dental caries", "cavity", "primary teeth", "deciduous teeth", "traumatic restorative treatment", "interim therapeutic restoration", and "glass ionomer". Search limits used were "humans", "children <12 years", "clinical trial", "comparative study", "controlled clinical trial", "meta-analysis", "multicenter" or placement of traditional dental restorations are not feasible and need to be postponed. Additionally, ITR may be used for step-wise excavation in children with multiple open carious lesions prior to definitive restoration of the teeth, in erupting molars when isolation conditions are not optimal for a definitive restoration, or in patients with active lesions prior to treatment performed under general anesthesia. The use of ITR has been shown to reduce the levels of cariogenic oral bacteria (eg, Mutans Streptococci, lactobacilli) in the oral cavity immediately following its placement. However, this level may return to pretreatment counts over a period of six months after ITR placement if no other treatment is provided.

The ITR procedure involves removal of caries using hand or rotary instruments with caution not to expose the pulp. Leakage of the restoration can be minimized with maximum caries removal from the periphery of the lesion. Following preparation, the tooth is restored with an adhesive restorative material such as glass ionomer or resin-modified glass ionomer cement. ITR has the greatest success when applied to single surface or small two surface restorations. Inadequate cavity
Introduced by W.H.O. in 1994
Traditional A.R.T.

- Non-Traditional settings
- Circumstances do not allow for follow-up care
- May be interpreted as a definitive restoration
- May use nondental providers
▶ No need for handpieces
▶ No need for water and suction
▶ Can eliminate need for local anesthetic
▶ Treatment carried out in knee-to-knee position
▶ Use of GI helps prevent further decay
▶ Fluoride releasing
▶ Buys time
  ▶ Best success single surface, small lesions

ITR Advantages
Disadvantages of ITR

- Practitioners unfamiliar with the technique
- Inappropriate application/poor case selection
- Will insurance companies require ITR instead?
  - Lower cost
- Is this promoting “sloppy”/sub-standard dentistry?
  - Is this a developing nation’s care in the USA
- May need to be repeated
- DIAGNOSIS IS KEY
- DOCUMENT and INFORM
Place a Glass Ionomer
Established by a general dentist with little access to specialty care 30 years ago
Place a preformed SSC over a carious tooth
Must be a good band of dentin and no history of spontaneous pain
No anesthetic
No caries removal
No tooth preparation of any kind
Scotland Study

- Looked at 132 split mouth study after 60 months Major and Minor failures
  - Major—Irreversible pulpitis, pathology
  - Minor—New decay, lost restoration
- 3 Major failures for Hall crown
- 15 Major failures for conventional


American Study

- Study design has its flaws
- About the same success rate between groups
- Conclusion is that there needs to be more research

JADA 145(12): 1248-1253, 2014

Hall Crowns by the Research
Table 1 Indications and contra-indications for (teeth) using the Hall Technique for managing primary molars with caries lesions assessed as at risk of progressing and causing pain/sepsis before exfoliation

| Indications include teeth with: | Proximal lesions, cavitated or non-cavitated  
Occlusal lesions, non-cavitated if the child is unable to accept a fissure sealant  
Occlusal lesions, cavitated if the child is unable to accept selective caries removal |
|---------------------------------|-------------------------------------------------------------------|
| Contra-indications include teeth with: | Where no ‘clear band of dentine’ can be seen on a radiograph  
Signs or symptoms of irreversible pulpitis, or dental infection (sepsis)  
Clinical or radiographic signs of pulpal exposure, or periradicular pathology  
Crowns/teeth so broken down they would be unrestorable with conventional techniques  
Children where the airway cannot be managed safely |
Fig. 1 Series of three photographs showing a crown being fitted to tooth 84 (lower right 1st primary molar). a) Different crowns are tried over the tooth until the correct size is found (covering the cusps and giving a feeling of ‘spring back’. Note that gauze is being used for airway protection. b) The crown is filled with glass ionomer cement. c) The crown is seated over the tooth (there is no local anaesthetic, tooth preparation or caries removal) and, in this case, the child has used their bite force to seat the crown with cotton wool to help distribute the force. The gingiva is blanching as the crown is sitting slightly subgingivally, further improving the seal and preventing the lesion progressing. Same child as Fig. 3
If This is so Great--What is the Argument

- Against
  - Hiding bacteria rather than eliminating it
  - What about marginal ridges
  - Ethics of treatment versus non-treatment
  - Medico-legal consideration

- For
  - Been in use for 30+ years
  - New way of thinking
  - Failure rates are similar
16 out of 19 trials included primary teeth
14 out of 19 trials used SDF
Evidence with a limited meta-analysis demonstrated that SDF may be effective in arresting caries in primary teeth

Critical Summaries

What Does the Data Demonstrate?

Study results indicate the following:

- 2 times per year SDF application is a reasonable starting point
- Good for high-risk, high-need patients
- Should use a detailed consent
- No caries excavation is required—requires clean/food free surfaces
- Application time ranged from 10s-3min
- Posterior teeth have less chances of arrest with one-time application
- Anterior teeth have higher rate of arrest

PED DENT 38(7): 466-471 (2017)
Effect of SDF on Bonding Strength of Dentin in Primary Teeth

*Pretreating with SDF did not affect the bonding strength of composite resin

*In Vitro study

How is SDF Used, What are Some Tips

- D1354—Interim Caries Arresting Medicament Application
- Must document the use and why you are using it
- Many different protocols (Oregon and UCSF)
- Stains everything (including clothes, gingival tissues, and the counter)
- Great if not pulpally involved—buys time
- Place Fluoride varnish to set product
  - Be careful with your brush
- If large areas may need to place IRT
SDF Instructions
<table>
<thead>
<tr>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hall Crown</td>
</tr>
<tr>
<td>• SDF</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tried</th>
</tr>
</thead>
<tbody>
<tr>
<td>• IRT</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>True</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Various Options for Treatment</td>
</tr>
<tr>
<td>• No Direct Pulp Caps</td>
</tr>
</tbody>
</table>
RESTORATIVE MATERIALS
Communication and trust between the patient and dentist was the most determining value in decision-making concerning restorative dentistry.
Which Materials are Best

- Composite resins the most preferred restoration of Class I, II, and V restorations in primary and permanent teeth
  - Amalgam has longer survival rate
  - Composite resin has a higher failure rate

What About SSC’s?

Ped Dent 38(7): 489-496, 2017

- SSC’s the most preferred posterior restorations for Class I, II, and V for DD populations. Influenced by OH, behavior, and need for pulp therapy.
Anterior Esthetic Crowns

- Zirconia crowns require more tooth reduction than SSC’s for both anterior and posterior teeth.
- Tooth reduction for anterior zirconia crowns was similar among brands

SSC’s and amalgam restorations were clinically more successful and had better survival times than composite restorations. LLHA had lower survival time than other space maintainers
Band and loop chairside--93.0% success rate
Band and loop lab-fabricated--84.9% success rate
### Table 3. Scientific, Tooth, and Patient-Related Factors That Contribute to Choosing Direct Restorative Material for Posterior Teeth by American and Canadian Pediatric Dentists

<table>
<thead>
<tr>
<th></th>
<th>Amalgam (%)</th>
<th>Composite (%)</th>
<th>Glass ionomer (%)</th>
<th>Resin-modified glass ionomer (%)</th>
<th>Stainless steel crown (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scientific factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supported by research/evidence-based</td>
<td>61.1</td>
<td>18.6</td>
<td>76.9</td>
<td>42.5</td>
<td>45.2</td>
</tr>
<tr>
<td>Historically safe and reliable</td>
<td>62.2</td>
<td>12.9</td>
<td>62.9</td>
<td>29.3</td>
<td>30.9</td>
</tr>
<tr>
<td>Primarily taught at school</td>
<td>60.2</td>
<td>7.5</td>
<td>57.2</td>
<td>19.3</td>
<td>19.9</td>
</tr>
<tr>
<td>Good mechanical properties</td>
<td>58.0</td>
<td>12.6</td>
<td>57.2</td>
<td>14.6</td>
<td>24.7</td>
</tr>
<tr>
<td>Fewer steps needed to restore</td>
<td>52.7</td>
<td>5.5</td>
<td>8.1</td>
<td>29.8</td>
<td>27.4</td>
</tr>
<tr>
<td>Allows for fluoride release</td>
<td>0.0</td>
<td>19.7</td>
<td>6.0</td>
<td>74.5</td>
<td>70.7</td>
</tr>
<tr>
<td>Lower toxicity than other materials</td>
<td>8.2</td>
<td>13.1</td>
<td>35.9</td>
<td>38.2</td>
<td>32.1</td>
</tr>
<tr>
<td>Less allergenic</td>
<td>22.3</td>
<td>14.6</td>
<td>48.1</td>
<td>41.8</td>
<td>35.2</td>
</tr>
<tr>
<td>Allows for a conservative preparation</td>
<td>3.7</td>
<td>25.0</td>
<td>91.2</td>
<td>42.1</td>
<td>45.3</td>
</tr>
<tr>
<td>Esthetically pleasing</td>
<td>0.4</td>
<td>26.8</td>
<td>95.8</td>
<td>27.7</td>
<td>37.9</td>
</tr>
<tr>
<td><strong>Tooth factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Expected lifespan</td>
<td>49.7</td>
<td>17.1</td>
<td>64.7</td>
<td>30.0</td>
<td>36.8</td>
</tr>
<tr>
<td>Subgingival preparation margins</td>
<td>44.0</td>
<td>2.7</td>
<td>5.8</td>
<td>23.3</td>
<td>22.4</td>
</tr>
<tr>
<td>Gross caries requiring a large preparation</td>
<td>21.9</td>
<td>2.3</td>
<td>12.4</td>
<td>8.8</td>
<td>9.7</td>
</tr>
<tr>
<td>Inability to obtain proper isolation</td>
<td>54.2</td>
<td>2.9</td>
<td>2.6</td>
<td>33.9</td>
<td>25.0</td>
</tr>
<tr>
<td>After pulp treatment</td>
<td>4.9</td>
<td>3.5</td>
<td>9.2</td>
<td>3.3</td>
<td>4.4</td>
</tr>
<tr>
<td>Bruxism</td>
<td>27.8</td>
<td>7.1</td>
<td>28.2</td>
<td>7.7</td>
<td>11.3</td>
</tr>
<tr>
<td><strong>Patient factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Patient’s age</td>
<td>45.7</td>
<td>14.4</td>
<td>69.3</td>
<td>35.1</td>
<td>39.5</td>
</tr>
<tr>
<td>Affordability</td>
<td>64.7</td>
<td>10.3</td>
<td>41.3</td>
<td>19.8</td>
<td>19.1</td>
</tr>
<tr>
<td>Based on caries risk assessment</td>
<td>42.9</td>
<td>13.2</td>
<td>45.5</td>
<td>36.2</td>
<td>37.9</td>
</tr>
<tr>
<td>Poor oral hygiene</td>
<td>45.9</td>
<td>5.6</td>
<td>14.3</td>
<td>27.8</td>
<td>27.7</td>
</tr>
<tr>
<td>Poor patient behavior</td>
<td>43.6</td>
<td>5.4</td>
<td>12.7</td>
<td>29.3</td>
<td>27.1</td>
</tr>
<tr>
<td>Caregiver’s insistence on treatment</td>
<td>16.0</td>
<td>12.9</td>
<td>91.4</td>
<td>14.9</td>
<td>19.0</td>
</tr>
</tbody>
</table>
Table 1. EVIDENCE OF EFFICACY OF VARIOUS DENTAL MATERIALS/TECHNIQUES IN PRIMARY TEETH WITH REGARD TO CAVITY PREPARATION CLASSIFICATIONS

<table>
<thead>
<tr>
<th>Material</th>
<th>Class I</th>
<th>Class II</th>
<th>Class III</th>
<th>Class IV</th>
<th>Class V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Amalgam</td>
<td>Strong evidence</td>
<td>Strong evidence</td>
<td>No data</td>
<td>No data</td>
<td>Expert opinion</td>
</tr>
<tr>
<td>Composite</td>
<td>Strong evidence</td>
<td>Expert opinion</td>
<td>Expert opinion</td>
<td>No data</td>
<td>Evidence in favor</td>
</tr>
<tr>
<td>Glass ionomer</td>
<td>Strong evidence</td>
<td>Evidence against</td>
<td>Evidence in favor</td>
<td>No data</td>
<td>Expert opinion</td>
</tr>
<tr>
<td>RMGIC</td>
<td>Strong evidence</td>
<td>Expert opinion</td>
<td>Expert opinion</td>
<td>No data</td>
<td>Expert opinion</td>
</tr>
<tr>
<td>Composers</td>
<td>Evidence in favor</td>
<td>Evidence in favor</td>
<td>No data</td>
<td>No data</td>
<td>Expert opinion</td>
</tr>
<tr>
<td>SSC</td>
<td>Evidence in favor</td>
<td>Evidence in favor</td>
<td>No data</td>
<td>No data</td>
<td>No data</td>
</tr>
<tr>
<td>Anterior crowns</td>
<td>N/A</td>
<td>N/A</td>
<td>Expert opinion</td>
<td>Expert opinion</td>
<td>Expert opinion</td>
</tr>
</tbody>
</table>

RMGIC = resin modified glass ionomer cement.
α Evidence from ART trials.
β Conflicting evidence for multisurface ART restorations.
γ Preference when moisture control is an issue.
φ Strip crowns, stainless steel crowns with/without facings.
δ Large lesions.

RESTORATIONS FOR PRIMARY TEETH
Stainless Steel Crowns
The Best Restoration Ever
• Extensive decay
• Large lesions
• Multiple surface lesions
• First primary molars
  ▶ tooth has inadequate support for mesial restorations

Indications for Crowns
More Indications for Crowns

- Hypoplastic primary or permanent teeth
- After a pulpotomy or pulpectomy
- Teeth with dentinogenesis imperfecta or amelogenesis imperfecta
- Persons with SHCN, poor oral hygiene, and failure of other materials is likely
- Abutment for space maintainers
- Children who require general anesthesia
1. Make depth cuts in the occlusal groove of 1.0 to 1.5mm, and reduce the occlusal table
2. Complete proximal reduction, contact must be broken gingivally
3. Remove decay with a large round bur
4. Round the line angles
5. Select a crown
6. Remove the rubber dam to check occlusion (should use a gauze square as a screen)
7. Dry out the crown and then cement

Steps for Preparing
Choose a crown that restores the preexisting contacts
Most common size is Size 4
Seat from lingual to buccal
  ▶ should have a little bit of friction or “snap”
If crowns are “in-between”
  ▶ reduce the buccal and lingual
If the crown doesn’t seat to the same height
  ▶ Is the contact broken
  ▶ Is the crown too long
Most common crown size?
What were the crown sizes based on for size?
Do you do decay removal first or last?
When do you place a crown?
Crowns will be too wide mesiodistally

- Larger crown which fits over the tooth’s convexity is selected
- Squeeze the marginal ridges with a howe plier
- Can recontour the crown
- Can always use maxillary D on lower D’s

Crowns for Space Loss
What’s New in Crowns

- Zirconia crowns
- Requires preparation that fits the crown
- Significant tooth reduction
- Esthetic result
- Technique sensitive
- Best education is on You-Tube
New
• Hall Crown
• SDF

Tried
• Stainless Steel Crowns
• IRT

True
• Various Options for Treatment
TREATMENT PLANNING
<table>
<thead>
<tr>
<th>S and T -- SSC/Pulp</th>
</tr>
</thead>
<tbody>
<tr>
<td>S and T -- SSC</td>
</tr>
<tr>
<td>S -- DOL and T -- SSC/Pulp</td>
</tr>
<tr>
<td>S -- SSC/Pulp and T -- Extraction</td>
</tr>
<tr>
<td>What Kind of Space Maintenance for T</td>
</tr>
<tr>
<td>------------------------------------</td>
</tr>
<tr>
<td>Band and Loop</td>
</tr>
<tr>
<td>Distal Shoe</td>
</tr>
<tr>
<td>Lower Lingual Holding Arch</td>
</tr>
<tr>
<td>No Space Maintenance</td>
</tr>
</tbody>
</table>

Start the presentation to activate live content.
If you see this message in presentation mode, install the add-in or get help at Poll Everywhere.
What Treatment for A and B

A and B -- SSC's
A -- Occlusal, B -- DO
A -- SSC, B -- DO

Start the presentation to activate live content
If you see this message in presentation mode, install the add-in or get help at Poll Everywhere.
Treatment for I and J

I and J--SSC

I--DO, J--SSC

I--SSC, J--MO

DO, J--MO
What should you do about the primary incisor

A. Remove decay and leave alone
B. SDF
C. Restore with composite/GI

Crown

Start the presentation to activate live content
If you see this message in presentation mode, install the add-in or get help at Poll Everywhere.
What is the Treatment Option for #3

A--Pulpotomy
B--Indirect Pulp Cap
C--Root Canal Therapy
What Are the Treatment Options for #3

A--Amalgam
B--Composite
C--Glass Ionomer
D--Stainless Steel Crown
What is the treatment for the Lower Right

- Sealant, S and T--SSC's
  30-Sealant, S---SSC and T-MO

30-Sealant, S-DO and T-MO

30-Sealant, S-DO and T-SSC
Treatment on the Upper Left

I--Extraction, J--SSC/Pulp

I--SSC/Pulp, J--MOD

Start the presentation to activate live content
If you see this message in presentation mode, install the add-in or get help at Poll Everywhere.

0%
Where Can You Get Information
Organizations That You Can Join
Resources

- [http://www.aap.org/oralhealth/](http://www.aap.org/oralhealth/)
- [http://www.mchoralhealth.org/OpenWide/index.htm](http://www.mchoralhealth.org/OpenWide/index.htm)
- [http://www.dentistry.uiowa.edu/pediatric-videos](http://www.dentistry.uiowa.edu/pediatric-videos)
- [http://www.aapd.org](http://www.aapd.org)
Healthy Smiles for Young Children
Questions?

Kecia Leary, DDS, MS
Associate Professor Pediatric Dentistry
University of Iowa, College of Dentistry

Kecia-Leary@uiowa.edu