# Louisiana State University School of Dentistry



# Pediatric Dentistry Clinic Manual 2022-2023

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LAGNAIPPE
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#### [DENT 3108 and DENT 4114 Pediatric Dentistry Clinic ]

Director:	[Jeffrey T. Johnson, DMD, MPH]
Minor Unit:	[Pediatric Dentistry]
Designation:	[Clinical Science]
Type:	[Required]
Starting year/semester:	[3]/[1]
Ending year/semester:	[4]/[2]
TOTAL CLOCK HOURS: Lecture Hours: Laboratory Hours: Clinic Hours: Examination Hours:	[104/32=136 total over 2 years] [0] [8] [96/32]] [0]

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#### 1.0 Entry Level Skills or Prerequisites

Successful completion of all first and second year dental courses; and third year courses (for 4114).

#### 2.0 Text and Materials

LSUSD Pediatric Dentistry Clinic Manual - accessed on Moodle

#### **Required reading:**

Dean, Avery, and McDonald. McDonald and Avery's Dentistry for the Child and Adolescent, 10th Ed., Mosby, Maryland Heights, 2015.

AAPD Policies and guidelines: http://www.aapd.org/policies

#### **Recommended reading:**

Nowak, Townsend, Wells. Pediatric Dentistry: Infancy Through Adolescence, 6th Ed. Elsevier Saunders Co., Philadelphia, 2019.

Moursi, da Fonseca, and Truesdale. Clinical Cases in Pediatric Dentistry, 1st Ed. Wiley-Blackwell, Ames, IA, 2012.

Soxman. Handbook of Clinical Techniques in Pediatric Dentistry Wiley 2015 (digital version available through LSUSD Library catalog)

Cameron, Widmer Handbook of Pediatric Dentistry 4<sup>th</sup> Edition, Mosby Elsevier 2013

Presentations from:	Dent 2117	Pediatric Dentistry Lecture I
	Dent 3102	Pediatric Dentistry Lecture II

Materials needed for LSUSD Pediatric Dentistry Rotation

LSUSD Pediatric Dentistry Clinic Manual – accessed on Moodle or LSUPedsDent.com High Speed Handpiece (sterilized) Low Speed Handpiece with latch attachments (sterilized) Protective Eyewear or Loupes if being used Isolite system if needed

#### 3.0 Introduction

#### 3.1 Purpose

The Pediatric Dentistry Clinic courses are designed to provide the junior and senior dental student with basic clinical experience in the diagnosis and treatment of children. Dentistry for children requires not only the mastering of specific diagnostic skills and techniques in restorative and surgical care, but also the development of behavior guidance skills to direct the child into remaining or becoming a patient with positive feelings toward dentistry and oral hygiene education. Few areas in dentistry demand such attention to the total patient. Students will be scheduled a total of 100 hours for participation in the clinic components of these courses in the third year, and 32 hours in the fourth year.

3.2 Rationale

[A competent general practitioner must understand the diagnostic and restorative skills necessary to provide basic oral health care to children and must exhibit the clinical skills to complete necessary pediatric restorative and surgical procedures. The treatment of children necessitates the student's knowledge in diagnosis, patient communication, local anesthesia, operative and surgical dentistry, trauma, and pulpal therapies that can be applied to both primary and immature permanent teeth.]

#### 4.0 Competencies/Educational Objectives

- **4.1 Competencies competency statements ratified by LSUSD Curriculum Committee 2013** Two Competencies will be assessed during the continuum of DENT 3108 and DENT 4114 addressing the following LSUSD Competency Statement:
  - LSUSDCS-11 Graduates must be competent in providing oral health care within the scope of general dentistry to patients in all stages of life. (CODA 2-22)
  - LSUSDCS-12 At a minimum, graduates must be competent in providing oral health care within the scope of general dentistry, as defined by the school, including (CODA 2-23):
    - a. patient assessment, diagnosis, comprehensive treatment planning, prognosis, and informed consent;
    - b. screening and risk assessment for head and neck cancer
    - c. recognizing the complexity of treatment and identifying when referral is indicated;
    - e. health promotion and disease prevention;
    - *f.* anesthesia, pain and anxiety control;
    - g. restoration of teeth;
    - i. periodontal therapy;
    - j. pulpal therapy;
    - k. evaluation of the outcomes of treatment, recall strategies, and prognosis

#### 4.2 Educational Objectives

- 16.0 Provision of Care. The general dentist must be able to diagnose, treat and manage routine dental care for the child, adolescent, adult, geriatric, and medically compromised patient.
  - 16.01 The Minimum Standard for Professional Behavior when performing clinical procedures at LSUSD each student <u>must always</u>:
    - a. demonstrate compliance with OSHA Guidelines;
    - b. exhibit caring patient management, including obtaining informed consent;
    - c. exhibit professional conduct;
    - d. review and update the Medical History at each appointment;
    - e. correctly complete the prescription for laboratory work, if indicated;
    - f. correctly prescribe medication, if indicated:
    - g. appropriately manage medical emergencies, if they arise;
    - h. appropriately manage dental emergencies, if they arise; and
    - i. recognize and appropriately refer the patient to medical and/or dental specialist(s), if necessary.

17.0 Examination of the Patient. The general dentist must be able to collect biomedical, psychological, and social information needed to evaluate the oral condition.

- 17.01 Identify the patient's chief complaint or reason for the visit.
- 17.02 Obtain a comprehensive medical, dental, psychological and social history
- 17.03 Obtain the patient's vital signs: blood pressure, temperature, pulse, respiration, height and weight.
- 17.04 Perform a complete head, neck, intraoral and radiographic examination.
- 17.05 Assess occlusion in the primary, mixed and/or permanent dentitions to identify conditions requiring treatment and management.
- 17.07 Assess the risk or radiation exposure and diagnostic benefits of radiographic procedures and select, make or evaluate the appropriate radiographs.
- 17.08 Take diagnostic radiographs
- 17.09 Understand appropriate laboratory tests, and their diagnostic reliability and validity.
- 17.10 Accurately record and chart all symptomatic and observed data.
- 18.0 Diagnosis. The general dentist must be able to reorganize a diseased condition and by examination, determine its etiology.
  - 18.01 Interpret findings from the medical and dental history, clinical and radiographic examination and other appropriate diagnostic procedures and tests to identify the pathogenesis and etiology of existing disorders.
  - 18.02 Recognize and understand the pathological physiology of systemic disease and its relationship with oral health and treatment.
  - 18.03 Clinically and radiographically identify the location and extent of caries and other diseases in tooth structure.
- 19.0 Treatment Planning. The general dentist must be able to develop, present, and discuss individual treatment plans that address all aspects of the patient's condition, interest and capabilities.
  - 19.01 Develop an appropriate, comprehensive, properly sequenced, individualized, therapeutic treatment plan based on the evaluation of all diagnostic data.
  - 19.02 Discuss findings, diagnosis, and treatment options with the patient and obtain written informed consent for delivery of the accepted treatment.

- 20.0 Prevention of Disease and Maintenance of Health. The general dentist must be able to provide care for each patient (child, adolescent, adult, geriatric, and medically compromised) that emphasizes prevention of oral disease (including caries, periodontal disease and diseases of the oral mucosa) and supports the establishment and maintenance of dental health.
  - 20.01 Recognize patient behavior contributing to orofacial problems to identify conditions requiring treatment, management or referral.
  - 20.02 Recognize oral health and the etiology and prevention of oral disease.
  - 20.03 Educate the patient concerning the etiology and prevention of oral disease.
  - 20.04 Provide oral hygiene instruction, prophylaxis, topical and supplemental fluorides.
  - 20.05 Provide sealants as indicated
  - 20.06 Provide dietary counseling and nutritional education relevant to oral health.
  - 20.07 Monitor and assess patient compliance in the prevention of dental disease including the recording of appropriate indices.
  - 20.08 Provide the patient with strategies to control adverse oral habits.
- 21.0 Legalities of Patient Care. The general dentist must know how to establish a practice operation that incorporates the concepts of informed consent, liability and risk management.
  - 21.03 Present diagnosis, treatment options, and potential complications to the patient and his/her legal representative and obtain informed consent.
- 22.0 Control of Pain and Anxiety. The general dentist must be able to employ techniques to manage orofacial discomfort and psychological distress.
  - 22.01 Recognize situations when discomfort and/or anxieties affect the patient's oral health or interfere with the delivery of care to identify conditions requiring treatment, management or referral.
  - 22.02 Use local anesthesia techniques for therapeutic and surgical procedures.
  - 22.03 Use nitrous oxide inhalation sedation techniques for dental procedures when indicated.
  - 22.04 Select and prescribe drugs for the management of pain and anxiety.
  - 22.05 Use behavioral techniques to reduce anxiety and pain.
  - 22.06 Recognize and understand the indications, contraindications, limitations, risks and benefits of the use of intravenous sedation, N20 analgesia, general anesthesia and local anesthesia.
- 23.0 Restoration of Form and Function. The general dentist must be able to diagnose and treat dental problems by restoring single or multiple teeth, to eliminate disease and pain and to restore normal form, function and esthetics.
  - 23.01 Understand acute and chronic dental occlusal, orofacial pain and temporomandibular disorders.
  - 23.02 Recognize internal and external morphology of normal, healthy teeth.
  - 23.03 Perform those procedures that are necessary to develop a restorative treatment plan, including medical history, patient management, impressions, records, diagnostic casts and radiographs.
  - 23.04 Perform appropriate procedures for the restoration of a single tooth that has been affected by dental caries, trauma or congenital malformation.
  - 23.06 Write an adequate laboratory work authorization and assess the quality and suitability of returned laboratory prosthesis.
  - 23.07 Understand the characteristics of restorative materials and use those materials appropriately.

- 23.08 Provide restorative procedures for primary teeth including preventive resins, composites, amalgam and stainless steel crowns.
- 24.0 Periodontal Therapy. The general dentist must be able to diagnose, treat and/or manage various forms of periodontal disease.
  - 24.01 Recognize normal gingival and periodontal anatomy
  - 24.02 Establish a proper diagnosis for a patient based on their periodontal status.
  - 24.03 Identify and understand the role of contributing etiologies for a patient's periodontal problems including the significance of microorganisms in the pathogenesis of periodontal diseases.
  - 24.04 Establish a reasonable prognosis for individual periodontally involved teeth and the patient's oral health as a whole.
  - 24.06 Appropriately prescribe, deliver, and monitor the use of chemotherapeutic agents as adjuncts in the treatment of periodontal diseases.
  - 24.08 Recognize the need for surgical procedures for the management of various types of periodontal diseases and indications and various types of periodontal diseases and indications and contraindications of these procedures.
- 25.0 Endodontic Therapy. The general dentist must be able to diagnose, treat and manage pulp and periapical disease of endodontic origin.
  - 25.01 Perform and interpret subjective and objective test to aid in the diagnosis of pulpal and periapical disease.
  - 25.03 Understand how to treat pulpal disorders through the performance of indirect and transdentinal pulp therapy, direct pulp capping, pulpotomy and pulpectomy procedures.
  - 25.05 Understand how to manage pulpal and periapical disorders of traumatic origin including apexification.
  - 25.07 Recognize and understand the indications for: non-surgical endodontic therapy in complicated permanent teeth; surgical endodontic therapy; intentional implantation, and reimplantation of avulsed teeth.
  - 25.08 Understand the need for vital and non-vital pulp therapy in primary and developing permanent teeth.
- 26.0 Oral Pathology. The general dentist must be able to diagnose and manage common non-life-threatening oral diseases or disorders and recognize and diagnose life-threatening oral diseases or disorders.
  - 26.01 Recognize normal healthy mucosa
  - 26.02 Understand use of pharmacological agents in the treatment of oral diseases
- 27.0 Surgical Therapy. The general dentist must be able to treat and manage conditions utilizing uncomplicated surgical procedures.
  - 27.01 Identify orofacial conditions requiring surgical treatment, management or referral.
  - 27.02 Be familiar with the anatomical detail of structures that may be involved in treatment.
  - 27.03 Perform uncomplicated tooth extractions.
  - 27.07 Know how to manage uncomplicated infections of dental origin.
  - 27.08 Know how to manage uncomplicated intraoperative and postoperative surgical complications.

- 28.0 Dental Emergencies. The general dentist must be able to manage the dental emergencies encountered in the general practice of dentistry.
  - 28.01 Manage dental emergencies related to pulpal conditions.
  - 28.02 Manage dental emergencies related to periodontal conditions.
  - 28.03 Manage dental emergencies related to restorative or prosthodontic conditions.
  - 28.04 Manage dental emergencies related to traumatic injuries.
- 29.0 Orthodontic Therapy. The general dentist must be able to recognize and diagnose limited occlusal abnormalities.

29.01 Distinguish between dental and skeletal orthodontic problems to identify conditions requiring treatment, management or referral.

30.0 Space Management. The general dentist must be able to recognize the need for space maintainers.

30.01 Recognize how to manage oral habits and provide space maintenance.

- 31.0 Evaluation of the Outcomes of Treatment. The general dentist must be able to evaluate treatment results and provide or recommend additional action and maintenance.
  - 31.01 Evaluate treatment results and provide recommendations for additional action.
- 32.0 Medical Emergencies. The general dentist must be able to provide effective life support measures for medical emergencies that may be encountered in the practice of dentistry.
  - 32.01 Know how to organize and establish prevention strategies for managing medical emergencies within a dental office.
  - 32.02 Know how to provide effective life support for medical emergencies, including the ability to establish a patent airway and implement cardiopulmonary resuscitation when indicated.
  - 32.03 Know how to recognize and manage medical emergencies with administration of appropriate pharmacotherapeutic agents when indicated.

#### ]

#### 5.0 Educational Sessions (Content Outline, Course Calendar, and Course Activities)

All students are assigned 3 non-concurrent week-long rotations in the Pediatric Dental Clinic at LSU School of Dentistry (two weeks in DENT 3108 and one week in DENT 4114 totaling 3 weeks of rotation through the pediatric clinic components over the third and fourth years.]

#### 6.0 Evaluation

Students will receive grades for SIM lab procedures and quiz, daily clinic attendance and participation, professionalism and competencies.

The overall grade for DENT 3108 will be a compilation of: Professionalism 30% (valued highly as professionalism is a key character trait for a dental professional, criteria found on page 14 of the clinic manual), Daily Grades 60%, and SIM quiz 10%.

Students will take a quiz during the first SIM session based on information in the Clinic Manual pertaining to procedures learned in SIM and/or clinic function. The quiz will comprise 10% of the student's grade. The SIM procedure grade will be Pass/Fail.

Students will be assessed on two competencies over the continuum of DENT 3108 and DENT 4114: Comprehensive Examination and Treatment Planning or recall of a patient  $\leq$  18 years of age, and Restorative Competency for a patient  $\leq$  18 years of age. Each competency will be weighted at 20% of the course grade for DENT 4114. Criteria for the assessment of each competency can be found on pages 46-48 of the clinic manual.

Competencies and exercises must be successfully completed to pass the courses regardless of overall course grade. If a student fails a competency one retake is offered. If a second failure occurs a third retake will only be possible after remedial exercises as determined by the course director. The average of the attempts at each of the two competencies will comprise 40% of the students' final grade for DENT 4114.

The student must observe a minimum of one knee-to-knee or 'lap' exam and document self-assessment portion in the axiUm evaluation form. Completion of the self-assessment must be authorized by faculty in **axiUm**.

The student's final grade for DENT 3108 will be determined as follows:

Professionalism	40%
Daily Clinic Grades	40%
Simulation Lab Quizzes	20%

The student's final grade for DENT 4114 will be determined as follows:

Professionalism	40%
Daily Clinic Grade	30%
Competencies	30%

The following scale will be used to determine the final grade for each course:

#### 7.0 Attendance

[Attendance is mandatory for all courses in the dental, dental hygiene and dental laboratory technology programs at LSU School of Dentistry. The LSU School of Dentistry attendance policies for didactic, pre-clinical and clinical courses are included in the LSUSD STUDENT HANDBOOK OF POLICIES AND PROCEDURES.]

#### **Pediatric Dentistry Faculty**

**Department Chair:** 

Dr. Jeffery Johnson Office Phone: 504-941-8250 Email: jjoh63@lsuhsc.edu

Postgraduate Program Director:

Dr. Jeffrey Johnson

**Course Faculty:** 

Dr. Kellie Axelrad Dr. Linda Cao Dr. Teresa Perkins Dr. Nicole Boxberger Dr. Claudia Cavallino Dr. Tyler Mesa Dr. Rick Olinde Dr. Stuart Bonin Dr. Jill Donaldson Dr. Johnnie Hunt Dr. Kris Norbo

#### **Second Year Residents**

Dr. Joshua Allen Dr. Allyn LaCombe Dr. Thurston Nash Dr. Dean Phan

#### **First Year Residents**

Dr. Clay Adams Dr. Chris Schmidt Dr. Kirby Moore Dr. Sydney Smith

#### **Pediatric Dentistry Staff**

Program Coordinator:	Ms. Dana Williams	Rm. 4327	941-8462
LSU Schedulers:	Ms. Johari Neason	Rm. 4317	941-8201
LSU Dental Assistants:	Ms. Trinise Butler Ms. Trimeca Lewis	Ms. Chanda Hawkins Ms. Francesca Mata	

\*\*\* Our chairside assistants have many years of practice in treating the child patient. Should you be able to work with a chairside assistant during your rotation, please heed all direction the chairside assistants provide regarding both behavior guidance and treatment protocol \*\*\*

#### **Review of Procedures Commonly Used in Pediatric Dentistry**

#### **Positioning:**

The best positioning for a pediatric dental exam is the child completely supine, with dentist operator directly behind the child (12 O'Clock Position) or slightly to operator's dominant side (11 O'Clock for right handed operator or 1 O'Clock Positions (left handed operator).



#### **Patient Safety:**

Patient identity **must** be verified prior to seating the patient in the dental chair. Medical history of a patient under 18 years of age **must** be updated/verified with a parent/legal guardian. Presence of parent/guardian **must** be verified prior to any operative or surgical procedure. Protective eyewear must ALWAYS be used for pediatric patients, the practitioner and the assistants.

#### Local Anesthesia:

Students in pediatric dentistry clinic **must** calculate the maximum permissible local anesthetic for their patient. Student **must** inform faculty if profound anesthesia is not achieved with one cartridge of local anesthetic injection.



#### Lighting:

Limit use of Loupes Lights during operative appointments only, not during exam or prophy. Be cognizant of Loupes Light in patient or faculty eyes.

Keep operatory light out of your patient's eyes as well. If you are not seated rendering patient care or using the operatory light for any reason, adjust light so it is shining down (on patient's belly) or turn it off.

#### **Rubber Dam**

Indications:

• All operative dentistry procedures

Contraindications:

• Partially erupted tooth unable to retain clamp

Procedure:

- 1. Obtain adequate local anesthesia of buccal and lingual mucosa. For sealants occasionally topical anesthetic may suffice. Alternate isolation methods such as Isolite are available to use in the department and can be requested after faculty approval.
- 2. Punch the necessary holes. Consult with the attending to determine if a "slit dam" or traditional rubber dam technique is appropriate.



Casamassimo, Fields, McTigue, Nowak. <u>Pediatric Dentistry Infancy Through Adolescence</u>, 5th Ed. Elsevier Saunders Co., Philadelphia, 2013. Page 308.

- 3. Select the appropriate retainer. Commonly used retainers:
  - First primary molar (2, 2A)
  - Second primary molar (26, 27, 3)
  - First permanent molar (14 for erupted, 14A for partially erupted)
  - Second permanent molar (14, 8A)
  - Primary incisors and canines (0)

Make sure floss (at least 18 inches in length) is tied to the bow



Ligate rubber dam clamp with long length of floss.

4. **Ligated Mouth Prop** (bite block, 18 inches of floss) comfortably in place on opposite side of mouth. Mesial edge of Prop should be distal to canines.

#### Three sizes of Bite Blocks:

small - for primary dentition only.
medium - after 6s erupt, but no 12s
large - full permanent dentition, or as the patient tolerates



An appropriate size bite block **MUST** always be utilized for pediatric patients receiving operative or surgical procedures.

- 5. Seat lingual aspect of clamp first, then buccal.
- 6. Assess stability of clamp using finger pressure.
- 7. Seat rubber dam material over clamp, floss between adjacent teeth.
- 8. Place rubber dam frame
- 9. Assess that patient's nose is not covered by rubber dam material and that rubber dam material or frame is not close to patient's eyes.



critique their placement... what's missing?!?!?



Primary teeth: Thinner enamel Larger pulp chamber Pulp horns more superior –especially <u>Mesial</u> Shorter crowns Narrower <u>occlusal</u> table



Figure 14.4. Comparison of proximal surfaces of primary and permanent crowns. Primary molars have a flat surface with a contact line; permanent molars have a contact point.

Primary teeth:

- Thinner enamel
- Wide contact (no slot preps!)
- Larger pulp chamber
- Pulp horns superior
- Enamel rods in gingival 1/3 slope <u>occlusally</u> (\*\*Cl V preps difficult)
- Shorter crowns
- Narrower occlusal table

#### Sealant

Indications:

• Tooth with high caries risk, susceptible tooth morphology (deep grooves, fissures, pits), caries history, fluoride history, and oral hygiene

Contraindications:

- Tooth that cannot be adequately isolated
- Tooth with decay into dentin
- Uncooperative Patient

#### Procedure

- 1. Clean tooth well with pumice or toothbrush. Get start check.
- 2. Mouth prop placed. Isolate with rubber dam. Cotton Roll isolation can be used only with the Attending's permission. Alternate option such as Isolite system is available.
- 3. Etch for 20 Seconds
- 4. Rinse well, dry to chalky white
- 5. Apply bonding agent
- 6. Cure for 15 seconds
- 7. Apply sealant only in grooves, not onto cusp tips or walls. Seal all grooves, including buccal and lingual grooves, and the groove associated with a prominent Cusp of Carabelli on permanent maxillary first molars (and some primary maxillary second molars)
  - a. Application of sealant materials can be facilitated by using:
    - i. Microbush
    - ii. Sealant application tip
    - iii. Dycal instrument
    - iv. Dental probe
- 8. Cure for minimum 40 seconds, wipe cured surface with gauze/ cotton roll, evaluate for full cure and retention with explorer
- 9. Remove rubber dam, mouth prop, any gauze or cotton rolls and check occlusion adjust as needed with a medium round bur



Chewing surface of a molar before sealant is applied.



The tooth surface is etched with a mild solution to help the sealant adhere.



Chewing surface of a molar protected by a shaded sealant.

From <u>www.ada.org</u> Also see page 316 in Dean textbook

#### **Class I Amalgam Preparation.**

Indications:

- Decay confined to one of the following surfaces: occlusal, buccal or lingual
- No pulpal therapy indicated

Contraindications:

- Grossly decayed primary tooth with unsupported walls
- Tooth requiring pulp therapy
- Interproximal decay
- Multisurface decay on primary molar

Procedure:

- 1. Adequate local anesthesia
- 2. Mouth Prop and Rubber Dam in place
- 3. Commonly used burs:
  - 329 or 330 high speed bur
  - 2, 4 slow speed round burs
- 4. Prepare the tooth keeping the following parameters in mind:
  - Penetrate to the depth of 0.5mm into dentin (typical depth from enamel cavosurface is 1.5mm)
  - Prepare all affected pits and fissures
  - Isthmus width should not exceed 1/3 of the intercuspal width
  - Buccolingual walls should converge
  - Do not cross oblique or transverse ridges unless undermined by caries
  - Keep in mind primary tooth anatomy and location of pulp horns



Casamassimo, Fields, McTigue, Nowak. <u>Pediatric Dentistry Infancy Through Adolescence</u>, 5th Ed. Elsevier Saunders Co., Philadelphia, 2013. Page 309.

- 5. Restore the tooth with amalgam. Condense amalgam thoroughly and completely into prep. Remember not to overcarve using the round end of a Walls Carver prevents overcarving.
- 6. Can etch, place adhesive, and sealant into unaffected pits and fissures following amalgam placement as a preventive measure. Cure completely.
- 7. Remove Rubber Dam, Mouth Prop, and check occlusion.

#### **Class II Amalgam Preparation**

Indications:

- Interproximal decay not extending past buccal or lingual line angles
- No pulpal therapy

Contraindications:

- Grossly decayed primary tooth with unsupported walls
- Tooth requiring pulp therapy
- Preparation that extends beyond the line angles
- MOD restoration on primary teeth is generally not recommended; exceptions can be made for older children.

Procedure:

- 1. Adequate local anesthesia
- 2. Mouth Prop and Rubber Dam in place
- 3. Commonly used burs:
  - 329 or 330 high speed bur
  - 2, 4 slow speed round burs
- 4. Prepare the tooth keeping the following parameters in mind:
  - Penetrate to the depth of 0.5mm into dentin (typical depth from enamel cavosurface is 1.5mm)
  - Prepare all affected pits and fissures
  - Isthmus with should not exceed 1/3 of the intercuspal width
  - Buccolingual walls should converge
  - Do not cross oblique or transverse ridges unless completely undermined by caries
  - Keep in mind primary tooth anatomy and location of pulp horns
  - Proximal box should be wider at the gingival portion than the occlusal portion
  - <u>Round proximal box line angle with pulpal floor</u> reduce internal stress
  - Axial wall should be 0.5 mm into dentin and gingival seat should be 1 mm wide
  - Break contact area to allow tine of explorer to pass through.
  - Placing a toothpick between the teeth while prepping has a few advantages:
    - Helps depress gingival papilla
    - Prevents cutting the rubber dam
    - Easier to assess proximal contact



- 5. Place matrix band/T-band and wedge assuring proper adaptation. Check with explorer. Segmental matrix may be used (as in below photo).

6. Restore the tooth with amalgam. Incrementally pack amalgam between two adjacent preps to maintain contour. Remember not to overcarve – using the round end of a Walls Carver prevents overcarving. Use the explorer horizontally to approximate the height of the marginal ridge.



\*\*\* note wedge and pretend there is a matrix in place!!!

Casamassimo, Fields, McTigue, Nowak. <u>Pediatric Dentistry Infancy Through Adolescence</u>, 5th Ed. Elsevier Saunders Co., Philadelphia, 2013. Page 313.

- 7. Can etch, place adhesive, and sealant into unaffected pits and fissures following amalgam placement as a preventive measure. Cure completely.
- 8. Remove rubber dam, bite block, and check occlusion. Make sure marginal ridges are out of occlusion prior to occlusion check or they will fracture.

#### **Common Mistakes with Amalgam Restorations:**

(Dashed line is optimal prep design)



(Modified from Forrester DJ, Wagner M, Fleming J: Pediatric dental medicine, Philadelphia, 1981, Lea & Febiger.)

- A. Failure to extend occlusal outline into all susceptible pits and fissures
- B. Failure to follow the outline of the cusps.
- C. Isthmus cut too wide.
- D. Flare of proximal walls too great.
- E. Angle formed by the axial, buccal, and lingual walls too great.
- F. Gingival contact with adjacent tooth not broken.

G. Axial wall not conforming to the proximal contour of the tooth, and the mesiodistal width of the gingival floor is greater than 1 mm.

Casamassimo, Fields, McTigue, Nowak. <u>Pediatric Dentistry Infancy Through Adolescence</u>, 5th Ed. Elsevier Saunders Co., Philadelphia, 2013. Page 313.

#### How To Use a T-Band



#### **Stainless Steel Crown**

Indications:

- Grossly decayed primary teeth
- Pulpal therapy
- Hypoplastic or hereditary anomalies (Amelogenesis Imperfecta, etc.)
- High caries risk especially very young children
- Multisurface decay on primary molar
- Special needs children, adolescents, and adults
- Stainless Steel Crowns may be used on permanent teeth in cases of
  - Hypoplastic or hereditary anomalies (Amelogenesis Imperfecta, etc.)
  - o Special Needs adults
  - Prior to stabilization of occlusion (used as a 'long-term temporary' in cases of need for full coverage prior to cessation of growth and stabilization of occlusion)

Contraindications:

- Non-restorable tooth
- Tooth expected to exfoliate within 1 year
- Tooth with occlusal interferences precluding Stainless Steel Crown placement

Procedure:

- 1. Adequate local anesthesia
- 2. Rubber Dam in place
- 3. Commonly used burs:
  - 6 round or wheel rounded diamond high speed burs: occlusal reduction
  - 169 high speed bur
  - 4, 6 slow speed round burs: residual caries removal
- 4. Preparation
  - Occlusal reduction 1-1.5 (in dentin) with a high speed 6 or wheel rounded diamond (donut) bur or 169 bur. During occlusal reduction preserve anatomy and round off all line angles.
  - Excavate decay with slow speed round bur. Excavate to clean periphery first, then proceed pulpally.
    - If pulp exposure perform pulpotomy at this time.
  - Reduce proximal contacts with a tapered diamond or 169 high speed bur to a feather edge. Do NOT cut adjacent tooth! Keep bur parallel to interproximal surface. In primary teeth proximal contacts often extend subgingivally. Take care not to leave ledges behind. You should be able to pass an explorer between the teeth in a buccolingual direction, and occluso-apically in the vertical plane without coming into contact with a ledge.
  - Round all sharp corners of the occlusal table/axial surfaces.
  - Rarely will you need to prep the buccal or lingual surfaces.
  - Remember, the retention for a stainless steel crown comes from the buccal bulge of the primary tooth and do not reduce this bulge.



5. Selecting a crown

Casamassimo, Fields, McTigue, Nowak.

<u>Pediatric Dentistry Infancy Through Adolescence</u>, 5th Ed. Elsevier Saunders Co., Philadelphia, 2013. Page 319.

- "D" primary first molars
- "E" primary second molars

Most common size is a size 4

- Select the crown that is the smallest that will fit on the tooth and still has adequate contacts.
- Score the crown at the gingival margin. Trim to 1mm beyond this line with scissors if necessary. Trimming the crown will make it "bigger". Too long is better than too short.
- Once the proper length is established check for marginal adaptation.
- Use box crimpers to adapt margins.
- Remove rubber dam and check occlusion. Have gauze screen in place to prevent aspiration
- If the crown was cut it must be polished prior to cementation. Smooth margins gently with a heatless stone. Polish with a green rubber wheel. Polish and finish with a Robinson Wheel and metal polishing compound (grayish white).



Casamassimo, Fields, McTigue, Nowak. <u>Pediatric Dentistry Infancy Through Adolescence</u>, 5th Ed. Elsevier Saunders Co., Philadelphia, 2013. Page 322.

- 6. Cement the crown with a GI Luting Cement.
  - a. Use bite stick if necessary for complete seating.
    - i. Evaluate occlusal plane of seated crown
    - ii. Evaluate mesial/distal rotation of seated crown
  - b. Remove excess cement with wet gauze.
  - c. Use floss with a knot to remove excess interproximal cement.
  - d. Wash with air and water and high suction.
- 7. Remove rubber dam clamp, rubber dam, and bite block to evaluate occlusion.

#### **Vital Pulpotomy**

Indications:

- Carious or mechanical pulp exposure of primary tooth
- No signs of soft tissue abscess.
- Radiographically no furcal bone loss or pathological root resorption (internal or external)
- Clinically pulp is red and hemostasis is easy to achieve with dry cotton pellet
- Asymptomatic tooth or history of mild provoked pain

Contraindications:

- Non-restorable tooth
- Soft tissue abscess
- Radiographically evident furcal bone loss or pathologic root resorption
- Inability to obtain hemostasis without use of fixative or hemostatic agent
- History of spontaneous pain.
- Immunocompromised patient where pulp therapy is contraindicated
  - 1. Adequate local anesthesia.
  - 2. Mouth prop comfortably in place.
  - 3. Rubber Dam Isolation: this is necessary
  - 4. Choose size of SSC for unprepared tooth to begin seating once prepped.
  - 5. Excavate decay excavate peripheral decay first and area of anticipated exposure last to prevent contamination of the pulp.
  - 6. Probe area of pulp exposure first with explorer to check pulpal anesthesia. If anesthesia is inadequate, can administer supplemental PDL injection(s) or inject into the pulp under pressure before de-roofing chamber while staying within maximum anesthetic dose level.
  - 7. De-roof chamber with a 6 round bur on high speed.
  - 8. Remove pulp tissue with low speed 6 round bur. Do not push bur apically to avoid perforation. Use an upward motion of slowly turning bur to remove tissue. Use adequately sharpened spoon excavator as needed.
  - 9. Achieve hemostasis with moist cotton pellet with pressure. The chamber should be empty with visible pulp stumps that are not oozing blood.
  - 10. Place a blotted (almost dry) formocresol cotton pellet over pulp stumps in the chamber taking care to avoid contact with all peripheral soft tissue. Can rub the pellets against the pulp stumps and allow pellet to remain for 5 minutes.
  - 11. Remove formocresol pellet and reassess pulp stumps for hemostasis.
    - a. If unable to achieve hemostasis, consider partial/full pulpectomy or extraction.
  - 12. Place firming IRM pellet in pulp chamber and condense to cavosurface. Remove excess.
  - 13. Restore with stainless steel crown. If pulpotomy is for emergency only and cannot be restored the same day place glass ionomer temporary over the IRM to seal the chamber.



Casamassimo, Fields, McTigue, Nowak. <u>Pediatric Dentistry Infancy Through Adolescence</u>, 5th Ed. Elsevier Saunders Co., Philadelphia, 2013. Page 341.

#### **Anterior Strip Crowns**

Indications:

- Indicated for multi-surface decay on primary incisors
- Can be used after pulp therapy
- Good application for only restoring one tooth

Contraindications:

- Non-restorable tooth
- Unable to control gingival heme
- End-on anterior occlusion or negative vertical overjet



- 1. Adequate local anesthesia.
- 2. Mouth prop comfortably in place.
- 3. Rubber Dam Isolation.
  - i. Choose proper size of strip crown measure against incisal edge.



- 4. Choose proper composite color evaluate a dollop on existing non-etched tooth structure.
- 5. Incisal Reduction: 1-1.5mm, donut diamond or tapered diamond on high speed.
- 6. Excavate decay round bur on slow speed.
- 7. Interproximal Reduction: feather edge or 'non' margin, tapered diamond on high speed.



'retention groove' - lingual on cingulum, divergent grooves on lingual.

- 8. Use 329 or 330 bur to place 'vent hole' on mesio-incisal-lingual point angle on lingual surface of strip crown. This will serve as a guide during seating.
- 9. Trim strip crown form to CEJ and evaluate in all planes of space for esthetics. The strip crown becomes very fragile once trimmed use caution when handling.
- 10. Etch, prime, and bond the tooth.
- 11. Fill trimmed strip crown form with composite resin beginning at incisal edge of strip crown, keeping tip of resin carpule in contact with expressed resin to minimize air bubbles.
- 12. Seat strip crown, using 'vent hole' to guide seating in appropriate orientation.
- 13. Fully cure strip crown resin, placing curing light on lingual surface first to draw in facial resin surface to the tooth.
- 14. Use tapered diamond to cut a 'T' along the LINGUAL surface of the strip crown form, with the top of the 'T' along the lingual-incisal line angle and the vertical portion of the 'T' running down the center of the LINGUAL surface. Take care to not cut too deep into the cured composite resin.
- 15. Open the lingual 'flaps' created by cutting a 'T' into the strip crown form and pull the crown form off the tooth through the contacts from the facial aspect. G f
- 16. Finish and polish as necessary.





#### **Anterior Stainless Steel Crowns**

Indications

- See previous indications for Stainless Steel Crowns
- Re: 'grossly decayed': must have enough height of contour for adequate retention



Additional pliers for anterior stainless crowns:

Contouring Plier (ball-and-socket type, ball goes inside crown for contouring)





Howe Plier (long, tapered straight plier)

#### Space Maintainers – consult D3 lecture for further info

The following is a review of commonly used space maintainers and general guidelines for their use. Patients must be assessed individually before any space maintainer is placed and in the mixed dentition **a Mixed Dentition Analysis is strongly recommended**.

#### Band and Loop

Indications:

- Premature loss of primary first molar in primary dentition or primary maxillary first molar in mixed dentition where the unerupted premolar is more than 2 years from clinical eruption.
- Premature loss of primary second molar after eruption of permanent first molar.

Contraindications:

- Significant preexisting space loss
- Bilateral premature loss of primary tooth on the mandible with the eruption of the four permanent incisors
- Noncompliant patient poor cooperation, poor hygiene, poor attendance

#### Distal Shoe

Indications:

- Loss of a primary second molar prior to the eruption of the permanent first molar.
- ALWAYS take post-seat radiograph to verify position prior to cementation

Contraindications:

• Noncompliant patient – poor cooperation, poor hygiene, poor attendance Pediatric Dentistry Clinic 2022-2023 • Immunocompromised patient

#### Lower Lingual Holding Arch

Indications:

• Bilateral premature loss of primary tooth on the mandibular arch after the eruption of the four permanent incisors

Contraindications:

- Significant preexisting space loss
- Mandibular lateral incisors not erupted
- Noncompliant patient poor cooperation, poor hygiene, poor attendance

Nance Holding Arch

Indications:

• Bilateral premature loss of primary tooth on the maxilla in the transitional dentition involving second primary molars

Contraindication:

- Significant preexisting space loss
- Noncompliant patient poor cooperation, poor hygiene, poor attendance

\*\*\* refer to lecture materials or LSUpedsdent.com for description and photos

#### **LSUSD Pediatric Clinic Procedures**

#### **Clinic Hours**:

- Clinic hours are 8am-12pm (all clinical procedures must be completed by 11:30 a.m.) clinic hours are 1pm-4:30pm (all clinical procedures must be completed by 4:15 p.m.)
- Leaving the pediatric clinic early is **not an option** there is still plenty to learn after patient care is completed. Assist a colleague, observe and/or assist with resident procedures, or review the Case Studies located in the Resident Room.
- Documentation in AxiUm: all notes, forms and charges **must be** entered for the morning patients before leaving for lunch break and for the afternoon patients before leaving clinic for the day.

#### Equipment Required for LSU Pediatric Dentistry Clinic Rotation

- High speed Handpiece (sterilized)
- Low speed Handpiece with latch (sterilized)
- Protective Eyewear/ Loupes
- Isolite system if needed
- Curing light

Please have all of your items labeled and preferably engraved with your names.

#### **Infection Control Notices**

- Follow LSU School of Dentistry Policies on Infection Control
- Only required items should be in the cubicle all purses, book bags, and coats should be stored in the student's locker. NO items to be stored in resident room or clinic.
- NO FOOD AND DRINK IN THE CLINIC! The **RED LINE** is the limit!! This includes children and parents ask them to finish snacks in waiting area.
- Do not go to waiting room to talk to parents in gown, masks, or gloves. Don't cross the **RED LINE** wearing any form of PPE!
- Do not "dig" through drawers with gloves on ask a dental assistant, colleague, or attending if you need something. Otherwise remove gloves to obtain an item.
- Do not "dig" through crown or band boxes with gloves have an assistant or attending pass supplies with clean cotton forceps.
- Disinfect any impressions.
- The student pair is responsible for cleaning the cubicle after completion of a patient visit. Wipe down the chair, take cassettes to instrument cart, set up for next appointment, raise chair at end of day. MAKE SURE TO TURN YOUR HANDPIECES INTO STERILIZATION with your name/PEDO on bag. Students are responsible for keeping up with their equipment.

Failure to follow asepsis guidelines will <u>absolutely</u> result in the loss of daily professionalism points! Take care of the kids! And our STAFF!! Please thank our great staff at the end of each day!!

#### **Examination Procedure and Progress Note Format**

#### **Pediatric Dentistry Progress Note Format**

The following accepted format must be used for all **axiUm** Entries. Notes should be detailed but in an easy to read format. Bullets with lines between are easier to understand than long paragraphs.

- **Dx: Diagnosis:** Describe the purpose/reason for the visit and any information provided by the patient upon arrival such as medical history, dental history, and pain.
- **Tx: Treatment**: Describe in detail the treatment and services provided. Include any caries found (during new patient or recare examinations, all drugs and medications, the site of administration and the dose in milligrams of local anesthetics. (2% Lidocaine with 1:100,000 epi has 34mg Lidocaine per 1.7mL cartridge)
- **Bx: Behavior**: Objectively describe the patient's behavior at each visit using the Frankl scale. (F4-1, with F4 excellent, F1 no cooperation)
- Ed: Education: Record the information given to the patient and parent. (OHI, numb lip precautions)
- Pv: Preventive: outline a preventive plan for the patient and suggest follow up
- **Rx:** Next Visit: State the treatment to be completed at the next visit. Include findings that should be re-evaluated. Simply saying "op" is NOT acceptable.

Treatment for Visit 2: State the treatment for the visit after the next visit

Treatment for Visit 3: State the treatment for visit 3 if needed

#### **Comprehensive Patient Examination Procedure**

- 1. Patients will check in with Scheduler. Once parent/caregiver has signed consent, Scheduler will bring Medical History forms to clinic and the patient will be accessible in **axiUm**.
- 2. Go to the lobby and call for the patient. Go to the patient cubicle review written medical history with parent/caregiver. Remember to review past dental history with parent/caregiver: you should inquire about oral hygiene, diet, trauma, and habits. Enter into **axiUm** under <u>Pediatric Medical</u> <u>History 2013</u> form and make sure you record a summary of medical and dental history, height, and weight (your student assistant can do this for you while you proceed with the appointment scales are located in Pedo Clinic.
- 3. If patients have Medicaid (MED will be printed on the posted schedule) payment will be automatic following the appointment. If patients are private pay or insurance, inform parents/caregivers of cost (print treatment plan estimate) prior to starting the procedure. (Remember, inform before you perform)

- 4. Briefly examine patient to determine which radiographs are necessary and confirm with faculty member. You must confirm radiographs with a faculty or a resident prior to taking failure to do so will result in loss of professionalism points. Make sure you follow the department's policy on radiographic technique on page 54. Obtain necessary radiographs.
- 5. Complete the <u>Pediatric Comprehensive Exam</u> form in axiUm.
- 6. Complete a hard tissue exam. Enter existing and planned treatment in **axiUm**. You can use a paper form if you are unsure of the findings and enter into **axiUm** after faculty check. All findings must be correctly entered and approved by faculty before the patient is dismissed.
- 7. Have faculty member examine patient and assist with treatment planning.
- 8. Disclose and determine plaque score. A 100% has no surfaces covered with plaque and 0% has all surfaces covered with plaque. Estimate percent of plaque remaining on teeth. If hygiene is poor, bring parent/caregiver back to be present for Oral Hygiene Instructions. Goal is 100% clean
- 9. Review oral hygiene instructions with brushing and flossing demonstrations and dietary counseling. Tooth-brush prophy (provides time for patient instruction regarding brushing... children remember simple instructions... "teeth have three sides, outside (buccal), inside (lingual), and topside (occlusal). Make circles on the outside and inside, scrub the topside." Rubber cup polish and hand scale as needed to remove stain and/or calculus and polish teeth following calculus removal and as tolerated by the patient.
- 10. Use fluoride varnish per Caries Risk Assessment. Use this time to complete yellow appointment form. Have faculty approve yellow appointment form.
- 11. Provide toothbrush and prizes to patient following fluoride treatment.
- 12. Enter all procedures performed during this visit, treatment plan, and complete an informed consent if treatment is warranted at next visit (ie. other than recare exam). Have instructor approve all entries and check informed consent for thoroughness. Informed consent should include all future planned treatment.
- 13. Escort patient to parent/caregiver, and inform parents of findings and treatment plan. Inform them of oral hygiene recommendations and dietary counseling. Inform them of expected fees at next visit (if any) and document in **axiUm** that you have informed parent/caregiver if fees will be due at next appointment. Please be cognizant of HIPAA and be discrete.
- 14. Student assistant to write up progress notes (under treating students' log-in), clean chair, place used instruments on Dirty Cart located next to Red Bin in clinic, and set up chair for next appointment.
- 15. Escort parents to 1)payment window if payment is due for today's visit, then to 2) Scheduler's window to schedule next appointment. Give scheduler paper medical history and yellow appointment form. Stay with patient and family until all questions are answers.

#### Thank them for coming to LSU School of Dentistry today!

#### Pediatric Comprehensive Exam for axiUm

- 1. General Appearance
  - a. Health Problems?
  - b. Medications?
  - c. History of Trauma?
  - d. Habits affecting dentition?
- 2. Extra-oral Findings Abnormal/Within Normal Limits
  - a. Head (ex. asymmetry, ringworm)
  - b. Lymph Nodes (ex. firm immovable nodes, give location of abnormal nodes)
  - c. Face (ex. scars, remarkable moles, cleft lip)
  - d. Lips *(ex. lesions, macules, incompetent)*
  - e. Hands (ex. evidence of nail-biting, thumbsucking, callouses, clubbing)
- 3. Intra-oral Findings

c.

- a. Palate and oropharynx (ex. erythema, bruising, lesions)
- b. Tonsils Abnormalities found?
  - Tonsils Size and Appearance (ex. erythema, exudate)
    - Tongue and Floor of Mouth (ex. fissured, lesions, ankyloglossia)
- d. Buccal Mucosa (ex. lesions, cheek biting)
- e. Frena (ex. prominent frenum contributing to diastema, ulceration)
- f. Gingiva and Periodontium (ex. recession, ulceration, erythema/edema)
- 4. Occlusion Review
  - a. Facial Profile
  - b. Molar Relationship
    - Primary Terminal Plane Right Primary Terminal Plane Left Permanent Molar Class Right Permanent Molar Class Left
  - c. Canine Relationship Right Canine Relationship Left
  - d. Incisor Relationship Overjet (in mm) Overbite (in percentage) Openbite (in mm)
  - e. Midine deviation? Maxilla right – mm of deviation Maxilla left – mm of deviation Mandibular Shift? Right, Left, or Anterior Mandibular Shift?
  - f. Primary Tooth Spacing Generalized Spacing? Primate Space Present? Crowding?
  - g. Permanent Tooth Spacing Maxilla Inadequate? Mandible Inadequate?
  - h. Eruption Sequence & Timing Problems
  - i. TMJ dysfunction?

- j. Crossbites
  - Anterior crossbite? Posterior crossbite?
  - Posterior crossbite?
- k. Tooth number anomalies
  - Supernumerary (add 50 + tooth #, or S behind tooth designation- ES) Missing Teeth?
- I. Congenital abnormalities
- m. Ectopic Eruption
- 5. Plaque Score % (in percent....100% is no surfaces with plaque, 0% is all surfaces with plaque, estimate and document, goal is 100% clean)
- Caries Risk Assessment Reference AAPD Guidelines <u>http://www.aapd.org/media/Policies\_Guidelines/G\_CariesRiskAssessment.pdf</u> Charts on pages 57-58 of this manual
- 7. Height (inches) Note: use chart on clinic wall
- 8. Weight (lbs) Note: use scales in Pedo or OMFS clinic
- 9. Maximum Anesthetic Dose of 2% lidocaine with 1:100.000 epi note in mg of Lido
- 10. Behavior Guidance Recommendations
- 11. Anticipatory Guidance Recommendations
- 12. Consults Requested

Faculty is available to discuss any of the above.

#### **Example Note for New Patient Visit:**

- Dx: 6yo female presents with mother for "checkup". RMH-No systemic illness, penicillin allergy, no meds.
- Tx: Comprehensive ExamRubber cup Prophy with fluoridated prophy paste2 bw, 1 pa upper left to evaluate decayed tooth #I2.7% APF Fl treatment in tray x 4min

Caries risk: Caries noted tooth I involving pulp, draining sinus tract noted on buccal. No other decay noted clinically or radiographically.

- Bx: Frankl 4. Nervous about explorer but follows instructions and responds to TSD
- Ed: Informed mom tooth #I requires extraction due to decay into pulp and associated periapical pathoses. OHI-start brushing at night before bed. Dietary Counseling limit juices to mealtime only, preferably diluted with water.
- Pv: Prescribed Denta Plus 5000 (generic form of Prevident) with both written and verbal POI.
- Rx: NV: Extract #I, re-assess oral hygiene. Informed mom sealant on J will not be covered by Medicaid must pay \$20 day of procedure if parent opts for recommended sealant placement.

Treatment for Visit 2 – 6 month recare, assess OH, assess space for #12

#### **Recall Appointment Procedure**

The recall appointment procedure is similar to the New Patient Appointment with the following changes:

- 1. You will not have a new Medical History sheet. You should review the previous medical history in the computer before speaking to parent/caregiver. You need to verbally update medical history with the parent and enter any changes into **axiUm**. Confirm no new illnesses, medications, and medication allergies. Update dental history with inquiries about pain, brushing habits, diet habits, and trauma. If patient had a history of oral habits inquire about progress with habit cessation.
- 2. Add a new <u>Pediatric Medical History 2013</u> form and update the findings. Kids are growing and things change often! Be cognizant of what is being monitored via charting notes.
- Review previous radiographs with attending and determine if new radiographs are indicated, reference the AAPD Guidelines: <u>http://www.aapd.org/media/Policies\_Guidelines/E\_Radiographs.pdf</u>

#### **Example Note for Recall Patient Visit:**

- Dx: 9yo female presents with mother for "cleaning". RMH-No systemic illness, sulfa allergy, no meds.
- Tx: Recall Exam

Rubber cup Prophy with fluoridated prophy paste, select hand scaling lingual lower anteriors 2 bw,

2.7% APF Fl treatment in tray x 4min

Caries Risk: No decay noted clinically or radiographically.

- Bx: Frankl 4.
- Ed: Informed mom slightly crowding, rec: ortho consult OHI-start brushing at night before bed. Dietary Counseling limit juices to mealtime only, preferably diluted with water.
- Rx: NV: ortho consult, eval OH

Treatment for Visit 2 – 6 month recall, assess OH, follow up with ortho consult

#### LSU Pediatric Dentistry Clinic Radiographic Guidelines

- 1. General Guidelines
  - a. All radiographs must be prescribed by a licensed dentist. Check with the attending faculty prior to exposing any radiographs in the pediatric clinic.
  - b. Lead apron MUST be used with pediatric patients when exposing radiographs.
  - c. The attending faculty and/or resident doctor must evaluate all films to determine if retakes are necessary do not retake a film without prior approval
  - d. Watch the child while taking the radiographs and verbally queue to minimize movement.
  - e. Use film holders to improve diagnostic quality of films.
  - f. Properly clean the radiograph chair and equipment after each use.
- 2. Patient Chart in Schick
  - a. Verify correct **axiUm** number is entered in the Schick patient ID tab.
  - b. Use correct spelling of patient's name.
  - c. Use a full mouth series template for each radiographic examination.
  - d. Start a new tab with the current date for each examination
  - e. Ensure the box selected corresponds to the appropriate side of which the radiograph being taken i.e. make sure the right side films are in the appropriate area on the computer screen.
  - f. Do not "flip films". If you believe your film placement in the template is inaccurate consult with the attending faculty and/or resident doctor.
  - g. Do not delete any radiographs which have been obtained, even if they are not the "ideal" image.
- 3. Panoramic films
  - a. Pediatric assistant MUST accompany student and patient.
  - b. Remove all metallic items such as earrings, glasses, piercings and hair accessories
  - c. Properly position the patient for diagnostic films if you are unsure how to do this consult with an attending faculty.

- 1) Review all information in **axiUm** including progress notes, comprehensive exam and medical history. Examine radiographs. Review case with attending.
- 2) Set up cubicle fully for procedure. If you are unsure of what procedure you are doing, set up as much as possible and confer with the attending, a resident or a pediatric assistant.
- 3) Write patient's name, age and procedure to be competed on patient napkin.
- 4) Call patient from waiting room. Confirm first and last name and birthdate. Discuss with parent/caregiver procedures to be performed and **any fees they will be responsible for** prior to beginning treatment.
- 5) Seat patient. Reexamine to confirm the treatment plan. Obtain start check from faculty.
- 6) Perform procedure according to faculty supervision. Checks are typically obtained following preparation and restoration but may be necessary more often according to procedure.
- 7) Enter all procedures performed during this visit in **axiUm**. Write up progress notes and have instructor **approve** all entries before dismissing the patient.
- 8) Inform patient and parent/caregiver of postoperative instructions (numb lip precautions, soft diet).
- 9) Inform the parent of next procedure (operative, recall, etc.) needed. Fill out yellow appointment slip.
- 10) Escort patient to parent/caregiver, and family to payment office if necessary.
- 11) Escort to Pediatric Dentistry scheduler and give her yellow appointment slip.

#### **Example Note for Operative:**

- Dx: 7yo male presents with mother for L-SSC w/ N2O. RMH mild asthma, no hospitalizations, inhaler 1 x month. Meds-albuterol inhaler. NKDA. Mom reports light lunch
- Tx: Obtained informed consent for SSC with N2O N20/02 x 4L x 25min @ 30%; 5 min O2 flush Anesthetized with 1 carp (34 mg) 2% Lidocaine w/ 1:100,000 epi – IA injection and long buccal.
  RDI and mouthprop utilized.
  Prepped tooth L for SSC removing all decay. No pulpal exposure. L-SSC Size D5, cemented with Ketac Cement, removed excess cement 3 min O2 postop – patient left alert and ambulatory with mother.
- Bx: Frankl 3. Initially nervous, calmed with N2O, tears for LA but recovered well, left appt happy
- Ed: Numb lip precaution, brush area well, OTC pain meds if necessary

NV: tooth #I-SSC with N2O Treatment for visit #2: Recare exam, assess homecare, monitor mesial tooth #S.

#### **Orthodontic Consults**

Orthodontic consults are indicated if a patient has a malocclusion that could benefit from orthodontics or a parent/caregiver specifically requests the consult. Consults are available at the discretion of the orthodontic attending and are not always available the day of the new patient examination or recall. The Orthodontic department is in seminar each day from 11AM until Noon. If you are unable to obtain an orthodontic consult at an appointment and would like to reschedule for a consult, an 8:30 am or afternoon appointment is best. Let the pediatric scheduler know this information (write on yellow appointment form and verbally confirm with scheduler).

The orthodontic consult is an opportunity to learn about orthodontic analysis. Student participation is required. Before requesting a consult the following information should be gathered and made available to the orthodontist:

- 1) Molar and Canine Class including appropriate division if indicated (ex. Class II, Div II)
- 2) Facial Profile
- 3) Overbite
- 4) Overjet
- 5) Midline
- 6) Crowding
- 7) Relevant radiographs on screen (a panoramic radiograph is <u>not</u> mandatory for an ortho consult!)

Make a short problem list and propose a possible treatment to the orthodontist. After your presentation discuss the orthodontist's assessment and proposed plan of treatment.

Document in axiUm :

- the name of the orthodontist providing the consult
- orthodontic assessment
- proposed plan of treatment
- any details such as recommended time to seek orthodontic care or reevaluation interval

Discuss any findings and recommendations with the parents. The ortho department screening/appointment number is 504-619-8572.

#### Knee-to-Knee (or Lap) Exam

Dental caries-risk assessment should be a routine component of any dental exam. Caries risk assessment in infancy, including the ability to detect caries in its earliest stages (ie, white spot lesions), is a key aspect of dental preventive care, and is best managed by a knee-to-knee (or "lap") exam. Caries Risk Assessment and Management guidelines are on pages 57-58 of the clinic manual.

The knee-to-knee exam grade form should be added to the child's **axiUm** form, and should include: Date:

Findings:

Parental Anticipatory Guidance Provided:

Faculty authorization in the axiUm grade form is necessary to secure credit for this exercise. A minimum of one observation of a knee-to-knee exam is required prior to graduation.

#### **Resident Observation**

If you do not have a patient you may observe resident patient treatment according to the following guidelines:

- Ask attending and resident if it is okay to observe
- Limit number of students observing a patient
- Introduce yourself to the patient and parent/caregiver and tell them what you are doing there
- Stay out of the resident's field of work do NOT step on the foot-pedal!
- Talk as little as possible to the patient and the parent/caregiver information from too many sources can be confusing to both. Do NOT distract patient from dentist.
- Feel free to ask questions to learn more about the procedure at appropriate times this one of the best learning opportunities you will have!

#### **Reminders for Patients with Medicaid Coverage**

Remember Medicaid will not cover:

- Sealants on Permanent **First** Molars on or after **10<sup>th</sup>** birthday
- Sealants on Permanent Second Molars on or after 16<sup>th</sup> birthday
- Sealants on Premolars at any age
- Sealants on Primary Teeth at any age

Medicaid also only covers bitewing radiographs once a year.

You <u>should</u> recommend any procedures you feel would benefit the patient regardless of coverage after verifying with Attending. Parents can make the decision concerning the child's care. However, **you must also inform the parents of their financial responsibility to pay for the procedures the day of completion**. Document this conversation in the progress notes.

#### INFORMED CONSENT:

In order to provide the best care for our patients we will be documenting informed consent for patients treated in the Pediatric Dentistry Clinic in the following manner:

Complete all treatment planning with faculty supervision

Enter complete treatment plan into axiUm as planned treatment

Fill out Informed Consent with anticipated procedures and behavior guidance recommendations

Enter this information in computer under Forms, Post-Grad Informed Consent

Review the Informed Consent Sheet with the Parent/Caregiver

Escort the parent and patient to Scheduler who will print out the estimate sheet and obtain the electronic signature from the Parent/Guardian

LSU School of Dentistry Pediatric Dental Consent Information

#### Possible Risks with Dental Treatment

We make our best effort to provide safe care to every patient but the risk for complications exist.

A partial listing of risks known to be associated with dental treatment and anesthetic are as follows:

- Infection
- Bleeding
- failure of wound to heal
- injuries to adjacent teeth and/or hard or soft tissues
- numbness of tongue, and/or mouth, and/or face
- biting of lips, or cheek in the area of numbness
- fracture of the mandible or maxilla
- opening between mouth and sinus or nose
- incomplete removal of tooth, dry socket
- fracture of tooth or root during extractions
- loss of teeth
- loss of bone
- sloughing (unanticipated loss of hard and/or soft tissue)
- instrument breakage
- swallowing and/or aspiration of objects
- allergic reaction to drugs
- failure of treatment to accomplish its purpose
- additional oral surgery, hospitalization and/or further treatment may be required in the event of any complication(s)

Although rarely occurring, dental treatment with local anesthetics may result in Death, Brain Damage, Quadriplegia, Paraplegia, loss of organ(s), loss of function of an organ, loss of function of face, arm(s), and disfiguring scars.

#### LSU School of Dentistry Pediatric Dental Consent Information

In order to provide the best dental care of your child we would like to inform you more about the practice of dentistry for children and risks associated with this practice.

#### Patient Management

It is our intent that all professional care provided in our dental clinic shall be of the best possible quality we can provide for each child. Providing high quality care in a safe manner can be difficult if the child lacks the ability to cooperate. All efforts will be made to obtain the cooperation of the children by the use of warmth, friendliness, kindness, and understanding. There are several behavior management techniques that are used by pediatric dentists to gain the cooperation of children to eliminate disruptive behavior or prevent patients from causing injury to themselves due to uncontrollable movements. This includes:

1. **Tell-Show-Do**: The dentist or assistant explains to the child what is to be done, shows an example on a tooth model or the child's finger and then the procedure is done to the child's tooth

2. **Positive Reinforcement**: rewards the child who displays cooperative behavior with complements, praise, a pat on the shoulder, or a small prize

3. **Voice Control**: the attention of the disruptive child is redirected by a change in the tone and volume of the dentist's voice

4. **Mouth props**: a device is placed in the child's mouth to prevent closure of the child's teeth on dental equipment

5. Hand and/or head holding by dentist, dental assistant, or parent: an adult keeps a child's body still so the child cannot grab the dentist's hand or sharp dental tools. This is to ensure patient safety.

6. **Medical Immobilization**: The child is placed in a restraining device made of cloth and Velcro. This is to ensure that the child does not hurt himself/herself by their movements.

7. **Nitrous Oxide Sedation**: nitrous oxide ("laughing gas") is a medication breathed through a nose mask to relax a nervous child and enable him/her to better tolerate dental treatment. The child will remain awake but is expected to be relaxed and calm. The nitrous oxide is breathed out of the child's body within a few minutes of being turned off. We Pediatric Dentistry Clinic 2022-2023 recommend an adult hold the child's hand as they leave the clinic.

8. **Oral Sedation**: sedative drugs may be recommended to help your child receive quality dentistry in a safe manner if other behavior management techniques do not work. *Your child will not be orally sedated without you being further informed and obtaining your specific consent for this procedure. Your child's doctor will discuss the specific instructions and consents should your child need to be sedated for dental treatment.* 

9. **General Anesthesia**: The dentist performs the dental treatment with the child anesthetized in the hospital operating room. *Your child will not be given general anesthesia without you being further informed and obtaining your specific consent for this procedure. Your child's doctor will discuss the specific instructions and consents should your child need to be sedated for dental treatment.* 

#### LSU School of Dentistry Pediatric Dentistry Department Informed Consent

State law requires us to obtain your informed consent to provide your child with recommended dental treatment or oral surgery. Please read this form carefully and ask about anything you do not understand.

#### **Recommended Treatment:**

After careful examination the following dental treatments are recommended for \_\_\_\_\_\_:

sealants – protective tooth colored coverings intended to prevent cavities on the biting surface(D1351) resin restorations – tooth colored fillings to treat decay (D2330, D2331. D2332, D2335) amalgam restorations – silver colored filling to treat decay(D2140, D2150, D2160, D22161) stainless steel crowns – silver colored crowns that cover the entire tooth (D2930, D2931) stainless steel crowns with a resin window – silver colored crowns with a white facing(D2933) Resin Crown – white crown made from tooth colored filling material (D2390, D2932) pulpotomy/pulpectomy – treatment to remove the inflamed or infected dental pulp or nerve to help keep the tooth (D3220, D3240) extraction – removal of a tooth (D7140) space maintainer-appliance made of band and wire to prevent drifting of teeth following extractions (D1510, D1515) fluoride varnish -a gel with a high fluoride content to prevent and arrest decay (D1206) Other :

Treatment is anticipated to require \_\_\_\_\_\_ visits.

In order to provide high quality dentistry in a safe manner the following behavior management methods are recommended:

Tell-Show-Do Positive Reinforcement Voice Control Mouth props Hand and/or head holding by dentist, dental assistant, or parent Medical Immobilization Nitrous Oxide Sedation. Oral Sedation General Anesthesia Other:

Alternatives to treatment are:

No treatment Other: I authorize the LSUSD Department of Pediatric Dentistry to use photographs, radiographs, other diagnostic materials, and treatment records for the purpose of teaching, research, and scientific publications.

I hereby state that I have read and understand this consent form, that I have been given an opportunity to ask questions I might have, and that all questions about the procedure or procedures have been answered in a satisfactory manner, and I understand further that I have the right to be provided with answers to questions which may arise during the course of my child's treatment. I further understand that I am free to withdraw my consent to treatment at any.

I have been given a copy of "LSU School of Dentistry Pediatric Dental Consent Information"

I have been given a copy of my treatment estimate

I understand that either the parent/guardian or an adult over the age 18 designated by the parent/guardian in writing must stay in the building with the minor patient for all treatment. Failure to comply will result in failure of the child to be seen or dismissal from the clinic.

Signature of Parent/Guardian

Relationship to Patient

Resident

#### Grading

#### Professionalism

Pediatric Dentistry is an age-defined specialty. Being aware of your verbiage and demeanor while child patients are in your presence is of utmost importance to the practicing dentist. See the list of Pedo-Friendly Terms in the Lagniappe Section on page 53 of the clinic manual.

The following qualities will be evaluated during each SIM and clinic session:

1. Attendance and Preparedness

On Time for Clinic (8am and 1pm) Prepared with: Handpieces Sterilized Lab Manual Curing Light Eyewear/Dental Loupes Isolite system if needed Personal items not in clinic (in student locker)

2. Infection Control

Infection Control Compliance

- 3. Communication Skills/Attitude Toward Patient Patient Well-being, Quality/Time of Care
  - Communicates professionally with parent/patient, faculty, staff, colleagues
- 4. Technical Competence Clinical Performance

Appropriate Radiographic Request, Technique, Interpretation

5. Record Keeping

All Findings Accurately Documented Appropriate Procedures Planned Procedures Completed Progress Note

# 6. Personal Conduct/Attitude Dress Code Professional Relationships Ethical Conduct Cooperation with Faculty Dismissal of patient promptly on conclusion of AM and PM work schedules

#### Running overtime or failure to dismiss patient on time will result in loss of professionalism points

Attentiveness to procedures when observing or assisting colleagues, residents, or faculty members is essential.

The Professionalism grade will be an average of daily professionalism grades and count as 20% of student's grade. Students may reference the attached Rubric the faculty will utilize to evaluate professionalism located on page 43 of the clinic manual.

Any incident that results in the loss of professionalism points may be reported to the student's group leader or the Office of Academic Affairs.

Grades will be entered in **axiUm** on a daily basis. Students are responsible for discussing grading discrepancies with faculty within 1 week of date of grading session.

#### **Competencies/Exercises**

Student competence will be assessed with the following:

- 1) Comprehensive Examination and Treatment Planning for the Pediatric Patient
  - must include radiographic examination obtained during same appointment
     appropriate treatment planning sequence
- 2) Restoration for a Pediatric Patient
  - restorative procedure for a pediatric patient
  - behavior guidance component

Completed competency grades will be entered into **axiUm**. To receive credit for a competency/procedure it must be entered in the student's **axiUm** chart by checking the 'competency' box and authorized by a faculty member or resident.

During a competency the student must complete a written self-assessment of the procedure **Student must** inform faculty or resident prior to starting the procedure that this is a competency procedure.

Grading of Sim Lab procedures / competencies takes place on a 4-1 scale as follows:

4	Excellent	-criteria achieved with no errors / no aid from instructor
3	Good	-criteria achieved with minor errors / no aid from instructor
2	Satisfactory	-criteria achieved requiring minor modification / no aid from instructor
1	Unsatisfactory	-criteria not achieved. Major error(s) that result(s) in incompetent
		clinical performance / required instructor intervention

The presence of a Grade 1- Unsatisfactory or a critical error will result in a failure. Competencies must be successfully completed to pass this course regardless of overall course grade. If a student fails a competency one retake is offered. If a second failure occurs a third attempt will only be possible after remedial exercises as determined by the course director. The final grade of a competency will be the average grade of the attempts.

#### Knee-to-knee / Lap Examination

Students are required to observe one knee-to-knee ("lap") exam during rotation to either LSUSD Pediatric Dentistry Clinic As general practitioners are often the primary source of information for new families, this experience is designed to establish a sense of comfort with conducting an infant oral exam from a diagnostic standpoint, ease of handling the infant alongside a parent/caregiver, as well as facilitating appropriate anticipatory guidance discussion.

#### **Simulation Lab Procedures and Quizzes**

The SIM Quizzes will be based on information contained in the course manual and practiced during that day's SIM session. Quizzes from each SIM session will be averaged to comprise 10% of the overall DENT 3108 final grade. The actual SIM procedures will be Pass/Fail and will comprise an additional 10% of the overall course grade.

# Simulation lab will be held on the first half day of each week of the DENT 3108 LSUSD Pediatric Dentistry rotation. All Sim Lab Sessions will be in Lab 7401.

Required Materials for both sessions: -Protective Eyewear -High Speed Handpiece -Low Speed Handpiece with Latch -Curing Light -Laptop Computer (access Clinic Manual on Moodle)

LSU Pediatric Dentistry	Student:
Evaluation Form	Date:
Comprehensive Examination and Tr	eatment Planning for the Pediatric Patient

Competency	l 1 <sup>st</sup> attempt ] 2 <sup>nd</sup> attempt					
Faculty Start Check:						
Information Gathering - review of medical and dental history (incomplete data gathering, - documentation of vitals (not obtained; not recorded)	/documentation)	4 4	3 3	2 2	1 1	
Accuracy of Examination and Dental Charting - extraoral examination (failure to diagnose pathosis) - soft tissue examination (failure to diagnose pathosis) - orthodontic evaluation (inaccurate assessment) - charting teeth present (inaccurate charting) - existing restorations (inaccurate charting) - clinical decay identified (inaccurate charting; white spot lesions i	not documented)	4 4 4 4 4	3 3 3 3 3 3 3	2 2 2 2 2 2	1 1 1 1 1	
<ul> <li><u>Radiographs</u></li> <li>accurate prescription of necessary radiographs (inappropriate null radiographic technique (undiagnostic images)</li> <li>radiographic assessment of decay (inaccurate charting of radiographic radiographic assessment of pathology (failed to diagnose and do</li> </ul>	imber/type) raphic decay) cument)	4 4 4 4	3 3 3 3	2 2 2 2	1 1 1 1	
<u>Treatment Planning</u> - caries risk assessment and preventive care planning (not assessed - accurate prescription of homecare adjuncts (failure to prescribe f - accurate sequence of treatment planning (inappropriate sequence)	d/documented) fluoride if indicated) ce)	4 4 4	3 3 3	2 2 2	1 1 1	N/A
<ul> <li>Behavior Guidance <ul> <li>assessment of temperament (improper Frankl category)</li> <li>informed consent (not obtained)</li> <li>verbal language (not: age appropriate, distracting; not actively l</li> <li>body language (unsuitable facial expression, cold demeanor)</li> </ul> </li> <li>Critical Errors in Parentheses</li> </ul>	istening)	4 4 4 4	3 3 3 3	2 2 2 2	1 1 1	
Student Assessment:						_
Faculty Assessment:						
Faculty agrees with Student Self-Assessment:						
Comments:						
Faculty Signature:	Date:					

LSU Pediatric Dentistry
Evaluation Form

Student:		
Date:		

Treatment Competency	<b>/</b> :				
Competency	□ 1 <sup>st</sup> attempt □ 2 <sup>nd</sup> attempt				
Patient axiUm #	·				
Faculty Start Check: Tooth #	_ Procedure				
Behavior Guidance					
-assessment of temperament (improper Frankl category)	4	3	2	1	
-informed consent ( <b>not obtained</b> )	4	3	2	1	
- verbal language (not: age appropriate, distracting; not active	ely listening) 4	3	2	1	
-body language (unsuitable facial expression, cold demeanor)	4	3	2	1	
Local Anesthetic Delivery					
-directions to patient (inadequate preparation of patient)	4	3	2	1	
-appropriate use of topical anesthetic (moisture, amount)	4	3	2	1	
-injection technique (improper location, aspiration, amount, v	isible syringe) 4	3	2	1	
-patient assessment (lack of anesthesia not recognized)	4	3	2	1	
Rubber Dam Technique Evaluation					
-clamp selection and preparation (floss not attached to clamp)	4	3	2	1	
-proper tooth selection and clamp stabilization (wrong tooth cl	amped) 4	3	2	1	
Tooth Preparation					
-occlusal					
- outline form (grossly overextended/underextended)	4	3	2	1	N/A
-depth of occlusal preparation (<1.0mm: >2.0mm)	4	3	2	1	, N/A
-width of occlusal preparation/isthmus (grossly wide/n	arrow) 4	3	2	1	N/A
-[SSC]occlusal reduction (grossly over reduced/under r	reduced) 4	3	2	1	N/A
-proximal		Ũ	-	-	
- hox extension (grossly overextended/ underextended	d) 4	З	2	1	N/A
-denth of gingival floor (contact not broken/grossly ov	erevtended) A	2 2	2	1	Ν/Δ
depth of grighval hoor (contact not broken/grossly ov		ן כ	2	1	N/A
-depth of axial wall (pup exposure)	4 (ad)	с С	2	1	N/A
-[SSC] provinal sides (contacts not broken/over reduc	ed) 4	3 ว	2	1	N/A
-[SSC] proximal line angles (too sharp)	4	3	2	T	N/A
- adjacent tooth ( <b>damage</b> )	4	3	2	T	
-caries removal (incomplete, unnecessary pulp exposure)	4	3	2	1	
-soft tissue (grossly lacerated)	4	3	2	1	
- conditioning (inadequate etch; uncured or excessive bonding	g agent) 4	3	2	1	N/A

Restoration						
-condensation (voids)	4	3	2	1	N/A	
-occlusal contours/marginal adaptation (overfilled/overcarved)	4	3	2	1	N/A	
-proximal contour/contact (open contact; gingival overhang)	4	3	2	1	N/A	
SSC Adaptation						
-Size selection (grossly too large/small)	4	3	2	1	N/A	
-crown seating (crown incompletely seated/incorrectly seated)	4	3	2	1	N/A	
-marginal adaptation (open/long/short)	4	3	2	1	N/A	
SSC Cementation						
-removal of excess cement (cement remaining)	4	3	2	1	N/A	
-cementation (crown incompletely seated/incorrectly seated)	4	3	2	1	N/A	
Extraction						
-removal of tooth (incorrect tooth/partial removal/tissue trauma)	4	3	2	1	N/A	
- post-op instructions (none provided/inaccurate discussion of sequelae)	4	3	2	1	N/A	
<ul> <li>space maintenance (fails to recognize need/wrong appliance recommended)</li> </ul>	4	3	2	1	N/A	
<b>Critical Errors in Parentheses</b> Student Assessment:						
Faculty Assessment:						
Faculty agrees with Student Self-Assessment:						
Comments:						
Faculty Signature: Date:						-

#### **PEDO FRIENDLY TERMS**

Explorer	Tooth Counter
Fluoride	Tooth Vitamins
Rubber Dam Clamp	Tooth Ring
Rubber Dam	Rubber Raincoat, Tooth Trampoline
High Speed	Tooth Pencil, Electric Toothbrush, Tooth Whistle
Slow Speed	Mr. Bumpy, Bumpy Toothbrush, Motorcycle Toothbrush

#### **Review of Frankl Behavior Scale**

Frankl 4	Definitely Positive (++)	looks forward to dental visits
Frankl 3	Positive (+)	accepts treatment with some nervousness
Frankl 2	Negative (-)	reluctant to accept treatment, timid, negative
Frankl 1	Definitely Negative ()refuses	treatment, defiant, cries forcefully

#### **Review of Primary Terminal Plane**

Mesial Step	Mandibular second molar mesial (more forward)
Flush	Distal surfaces of primary second molars are coincident
Distal Step	Mandibular second molar distal (more retruded)



## **Dietary Fluoride Supplementation Schedule**

Age	<0.3 ppm F	0.3-0.6 ppm F	>0.6 ppm F
Birth-6 mo	0	0	0
6 mo – 3 y	0.25 mg	0	0
3-6y	0.5 mg	0.25 mg	0
6yr up to 16	1.00 mg	0.5 mg	0

Remember to investigate all sources of fluoride before prescribing supplements. Just because water is "well water" it still may have significant fluoride content. Determine the fluoride level of the water supply or supplies (either through contacting public health officials or water analysis), evaluate other dietary sources of fluoride, and assess the child's caries risk. To optimize the topical benefits of systemic fluoride supplements, the child should be encouraged to chew or suck fluoride tablets.

#### **FLUORIDE PRODUCTS**

Prevident	1.1% NaF	5000 PPM
GelKam	0.4% SnF2	1000 PPM
ACT rinse	0.05% NaF	220 PPM
Minute Foam	2.7% APF	12,500 PPM
Fluoride Varnish	5% NaF	25,000 PPM

#### LOCAL ANESTHETIC CALCULATIONS

- The local anesthetic max for 2% Lidocaine with 1:100K epi is 4.4mg/kg
- An easy way to remember this is: you can administer one (1.7mL) carpule for every 17 pounds
- Always dose for ideal weight. A 3 year old weighing 90 pounds cannot have 5 carpules!! Find the ideal weight of a 3 year old that is the same height as the patient and use this for your calculations. Height/weight growth charts for children can be found at:

http://www.aapd.org/media/Policies\_Guidelines/RS\_GrowthCharts.pdf

#### **AAPD/ADA Guidelines on Radiographic Examination**

	PATIENT AGE AND DENTAL DEVELOPMENTAL STAGE						
	Child with Primary	Child with	Adolescent with	Adult Dentate or	Adult Edentulous		
TYPE OF ENCOUNTER	Dentition (prior to eruption	<b>Transitional Dentition</b>	Permanent Dentition	Partially			
	of first permanent tooth)	(after eruption of first	(prior to eruption of	Edentulous			
		permanent tooth)	third molars)				
New patient*	Individualized radiographic	Individualized	Individualized radiograph	ic exam consisting	Individualized		
being evaluated for dental	exam consisting of selected	radiographic exam	of posterior bitewings wit	h panoramic exam	radiographic exam,		
diseases and dental	periapical/occlusal views	consisting of posterior	or posterior bitewings and	l selected periapical	based on clinical signs		
development	and/or posterior bitewings if	bitewings with	images. A full mouth intra	aoral radiographic	and symptoms.		
	proximal surfaces cannot be	panoramic exam or	exam is preferred when the	ne patient has			
	visualized or probed. Patients	posterior bitewings and	clinical evidence of gener	alized dental			
	without evidence of disease	selected periapical	disease or a history of ext	ensive dental			
	and with open proximal	images.	treatment.				
	contacts may not require a						
	radiographic exam at this						
	time.						
Recall patient* with	Posterior bitewing exam at 6-12	2 month intervals if proxima	al surfaces cannot be	Posterior bitewing	Not applicable		
clinical caries or increased	examined visually or with a pro	obe		exam at 6-18			
risk for caries**				month intervals			
Recall patient* with no	Posterior bitewing exam at 12-2	24 month intervals if	Posterior bitewing	Posterior bitewing	Not applicable		
clinical caries and no	proximal surfaces cannot be ex-	amined visually or with a	exam at 18-36 month	exam at 24-36			
increased risk for caries**	probe		intervals	month intervals			
Recall patient* with	Clinical judgment as to the need	d for and type of radiograph	ic images for the evaluation	n of periodontal	Not applicable		
periodontal disease	disease. Imaging may consist of	of, but is not limited to, sele	cted bitewing and/or periap	ical images of			
D (L ( C )) L ( C	areas where periodontal disease	e (other than nonspecific gin	givitis) can be identified cl	inically.			
Patient for monitoring of	Clinical judgment as to need to	r and type of	Clinical judgment as to	Usually not indicate	d		
growth and development	radiographic images for evaluat	tion and/or monitoring of	need for and type of				
	dentofacial growth and develop	oment	radiographic images for				
			evaluation and/or				
			facial arrowth and				
			davalanment				
			Beneromie er perionical				
			avam to assass				
			developing third molars				
Patient with other	Clinical judgment as to need for	r and type of radiographic i	mages for evaluation and/or	r monitoring in these c	onditions		
circumstances including	Chine a judginent as to need to	and type of radiographic r	inages for evaluation and of	i monitoring in these e	onditions		
but not limited to							
proposed or existing							
implants, pathology,							
restorative/endodontic							
needs, treated periodontal							
disease and caries							
remineralization							

#### \*Clinical situations for which radiographs may be indicated include but are not limited to:

#### **A.** Positive Historical Findings

- 1. Previous periodontal or endodontic treatment
- 2. History of pain or trauma
- 3. Familial history of dental anomalies
- 4. Postoperative evaluation of healing
- 5. Remineralization monitoring
- 6. Presence of implants or evaluation for implant placement

#### **B.** Positive Clinical Signs/Symptoms

- 1. Clinical evidence of periodontal disease
- 2. Large or deep restorations
- 3. Deep carious lesions
- 4. Malposed or clinically impacted teeth
- 5. Swelling
- 6. Evidence of dental/facial trauma
- 7. Mobility of teeth
- 8. Sinus tract ("fistula")

- 9. Clinically suspected sinus pathology
- 10. Growth abnormalities
- 11. Oral involvement in known or suspected systemic disease
- 12. Positive neurologic findings in the head and neck
- 13. Evidence of foreign objects
- 14. Pain and/or dysfunction of the
- temporomandibular joint
- 15. Facial asymmetry
- 16. Abutment teeth for fixed or removable partial prosthesis
- 17. Unexplained bleeding
- 18. Unexplained sensitivity of teeth
- 19. Unusual eruption, spacing or migration of teeth
- 20. Unusual tooth morphology, calcification or color
- 21. Unexplained absence of teeth
- 22. Clinical erosion

#### \*\*Factors increasing risk for caries may

- include but are not limited to:
- 1. High level of caries experience or
- demineralization
- 2. History of recurrent caries
- 3. High titers of cariogenic bacteria
- 4. Existing restoration(s) of poor quality
- 5. Poor oral hygiene
- 6. Inadequate fluoride exposure
- 7. Prolonged nursing (bottle or breast)
- 8. Frequent high sucrose content in diet
- 9. Poor family dental health
- 10. Developmental or acquired enamel defects
- 11. Developmental or acquired disability
- 12. Xerostomia
- 13. Genetic abnormality of teeth
- 14. Many multisurface restorations
- 15. Chemo/radiation therapy
- 16. Eating disorders
- 17. Drug/alcohol abuse
- 18. Irregular dental care

From: http://www.aapd.org/media/Policies Guidelines/E Radiographs.pdf

#### AAPD Caries – Risk Assessment Forms

Factors	High Risk	Moderate Risk	Protective
Biological			
Mother/primary caregiver has active caries	Yes		
Parent/caregiver has low socioeconomic status	Yes		
Child has >3 between meal sugar-containing snacks or beverages per day	Yes		
Child is put to bed with a bottle containing natural or added sugar	Yes		
Child has special health care needs		Yes	
Child is a recent immigrant		Yes	
Protective			
Child receives optimally-fluoridated drinking water or fluoride supplements			Yes
Child has teeth brushed daily with fluoridated toothpaste			Yes
Child receives topical fluoride from health professional			Yes
Child has dental home/regular dental care			Yes
Clinical Findings			
Child has >1 decayed/missing/filled surfaces	Yes		
Child has active white spot lesions or enamel defects	Yes		
Child has elevated mutans streptococci levels	Yes		
Child has plaque on teeth		Yes	
Circling those conditions that apply to a specific patient helps the practitioner a or protect from caries. Risk assessment categorization of low, moderate, or high is However, clinical judgment may justify the use of one factor (eg, frequent exposur	nd parent understa based on preponder re to sugar-containin	nd the factors that co ance of factors for the g snacks or beverages,	ntribute to individual. more than

Factors	High Risk	Moderate Risk	Protective
Biological			
Patient is of low socioeconomic status	Yes		
Patient has >3 between meal sugar containing snacks or beverages per day	Yes		
Patient has special health care needs		Yes	
Patient is a recent immigrant		Yes	
Protective			
Patient receives optimally-fluoridated drinking water			Yes
Patient brushes teeth daily with fluoridated toothpaste			Yes
Patient receives topical fluoride from health professional			Yes
Additional home measures (eg, xylitol, MI paste, antimicrobial)			Yes
Patient has dental home/regular dental care			Yes
Clinical Findings			
Patient has $\geq 1$ interproximal lesions	Yes		
Patient has active white spot lesions or enamel defects	Yes		
Patient has low salivary flow	Yes		
Patient has defective restorations		Yes	
Patient wearing an intraoral appliance		Yes	
Circling those conditions that apply to a specific patient helps the practitioner and to or protect from caries. Risk assessment categorization of low, moderate, or high	d patient/parent unde is based on preponder	rstand the factors that rance of factors for the	contribute individual.

from www.aapd.org/guidelines

Risk Category	Diagnostics	Interventions Fluoride	Diet	Restorative
Low risk	<ul> <li>Recall every six to12 months</li> <li>Baseline MS<sup>®</sup></li> </ul>	<ul> <li>Twice daily brushing</li> </ul>	Counseling	– Surveillance <sup>x</sup>
Moderate risk parent engaged	– Recall every six months – Baseline MS®	<ul> <li>Twice daily brushing with fluoridated toothpaste<sup>\$</sup></li> <li>Fluoride supplements<sup>\$</sup></li> <li>Professional topical treatment every six months</li> </ul>	Counseling	<ul> <li>Active surveillance<sup>6</sup> of incipient lesions</li> </ul>
Moderate risk parent not engaged	– Recall every six months – Baseline MS <sup>®</sup>	<ul> <li>Twice daily brushing with fluoridated toothpaste<sup>8</sup></li> <li>Professional topical treatment every six months</li> </ul>	Counseling, with limited expectations	<ul> <li>Active surveillance<sup>1</sup> of incipient lesions</li> </ul>
High risk parent engaged	<ul> <li>Recall every three months</li> <li>Baseline and follow</li> <li>up MS<sup>o</sup></li> </ul>	<ul> <li>Twice daily brushing with fluoridated toothpaste<sup>\$</sup></li> <li>Fluoride supplements<sup>6</sup></li> <li>Professional topical treatment every three months</li> </ul>	Counseling	<ul> <li>Active surveillance<sup>6</sup> of incipient lesions</li> <li>Restore cavitated lesions with ITR<sup>®</sup> or definitive restorations</li> </ul>
High risk parent not engaged	<ul> <li>Recall every three months</li> <li>Baseline and follow</li> <li>up MS<sup>#</sup></li> </ul>	<ul> <li>Twice daily brushing with fluoridated toothpaste<sup>\$</sup></li> <li>Professional topical treatment every three months</li> </ul>	Counseling, with limited expectations	<ul> <li>Active surveillance<sup>6</sup> of incipient lesions</li> <li>Restore cavitated lesions with ITR<sup>®</sup> or definitive restorations</li> </ul>

Table 4. Example of a Caries Management Protocol for 1-2 Year Olds

#### Table 5. Example of a Caries Management Protocol for 3-5 Year Olds

Rich Catavar	Discontin	Intervent	Bestevitier		
Kisk Category	Diagnostics	Fluoride	Diet	$Sealants^{\lambda}$	Restorative
Low risk	<ul> <li>Recall every six to 12 months</li> <li>Radiographs every</li> <li>12 to 24 months</li> <li>Baseline MS<sup>®</sup></li> </ul>	<ul> <li>Twice daily brushing with fluoridated toothpaste<sup>Y</sup></li> </ul>	No	Yes	— Surveillance <sup>x</sup>
Moderate risk parent engaged	<ul> <li>Recall every six months</li> <li>Radiographs every six to 12 months</li> <li>Baseline MS<sup>o</sup></li> </ul>	<ul> <li>Twice daily brushing with fluoridated toothpaste?</li> <li>Fluoride supplements<sup>4</sup></li> <li>Professional topical treatment every six months</li> </ul>	Counseling	Yes	<ul> <li>Active surveillance<sup>4</sup> of incipient lesions</li> <li>Restoration of cavitated or enlarging lesions</li> </ul>
Moderate risk parent not engaged	<ul> <li>Recall every six months</li> <li>Radiographs every six to 12 months</li> <li>Baseline MS<sup>o</sup></li> </ul>	<ul> <li>Twice daily brushing with fluoridated toothpaste<sup>Y</sup></li> <li>Professional topical treatment every six months</li> </ul>	Counseling, with limited expectations	Yes	<ul> <li>Active surveillance<sup>5</sup> of incipient lesions</li> <li>Restoration of cavitated or enlarging lesions</li> </ul>
High risk parent engaged	<ul> <li>Recall every three months</li> <li>Radiographs every six months</li> <li>Baseline and follow up MS<sup>e</sup></li> </ul>	<ul> <li>Brushing with 0.5 percent fluoride (with caution)</li> <li>Fluoride supplements<sup>6</sup></li> <li>Professional topical treatment every three months</li> </ul>	Counseling	Yes	<ul> <li>Active surveillance<sup>£</sup> of incipient lesions</li> <li>Restoration of cavitated or enlarging lesions</li> </ul>
High risk parent not engaged	<ul> <li>Recall every three months</li> <li>Radiographs every six months</li> <li>Baseline and follow up MS<sup>o</sup></li> </ul>	<ul> <li>Brushing with 0.5 percent fluoride (with caution)</li> <li>Professional topical treatment every three months</li> </ul>	Counseling, with limited expectations	Yes	<ul> <li>Restore incipient, cavitated, or enlarging lesions</li> </ul>

from http://www.aapd.org/media/Policies\_Guidelines/G\_CariesRiskAssessment.pdf

# Dental Growth and Development

Primary Dentition									
	Calcification begins at	Formation	Eruption Maxillary Mandibular		Exfoliation Maxillary Mandibular				
	8		,		,				
Central incisors	4 <sup>th</sup> fetal mo	18-24 mo	6-10 mo	5-8 mo	7-8 y	6-7 y			
Lateral incisors Canines	4 <sup>th</sup> fetal mo	18-24 mo 30-39 mo	8-12 mo	7-10 mo 16-20 mo	8-9 y 11-12 y	7-8 y 9-11 v			
First molars	4 <sup>th</sup> fetal mo	24-30 mo	11-18 mo	11-18 mo	9-11 y	10-12 y			
Second molars	4 <sup>th</sup> fetal mo	36 mo	20-30 mo	20-30 mo	9-12 y	11-13 y			

Permanent Dentition								
	Calcification begins at	Crown (enamel) complete at	Roots complete at	Eruption* Maxillary Mandibular				
Central incisiors	3-4 mo	4-5 y	9-10 y	7-8 y (3)	6-7 y (2)			
Lateral incisors	Maxilla: 10-12 mo	4-5 y	11 y	8-9 y (5)	7-8 y (4)			
	Mandible: 3-4 mo	4-5 y	10 y					
Canines	4-5 y	6-7 y	12-15 y	11-12 y (11)	9-11 y (6)			
First premolars	18-24 mo	5-6 y	12-13 y	10-11 y (7)	10-12 y (8)			
Second premolars	24-30 mo	6-7 y	12-14 y	10-12 y (9)	11-13 y (10)			
First molars	Birth	30-36 mo	9-10 y	5.5-7 y (1)	5.5-7 y (1a)			
Second molars	30-36 mo	7-8 y	14-16 y	12-14 y (12)	12-14 y (12a)			
Third molars	Maxilla: 7-9 y	4-5 y		17-30 y (13)	17-30 y (13a)			
	Mandible: 8-10 y							

\* Figures in parentheses indicate order of eruption. Many otherwise normal infants do not conform strictly to the stated schedule.

Logan WHG, Kronfeld R. Development of the human jaws and surrounding structures from birth to the age of fifteen years. J Am Dent Assoc 1933;20(3):379-427. Copyright © 1933 American Dental Association. All rights reserved. Adapted 2003 by permission.

### **Commonly Prescribed Medications**

Rx: **Ibuprofen** (100, 200, 300, 400, 600, 800mg tabs, 50, 100mg chewable tabs, 100mg/5mL) [Dosage: Adult 200-800mg tid-qid Child (6mo-12y) = 5-10mg/kg q4-6h max 40-50mg/kg/day]Rx: Acetaminophen (325, 500mg caps; 80, 120 160mg chewable tabs; 120, 160, 325mg/5mL) [Dosage: Adult = 325-500mg q4-6h Child 1-2y = 120mg q4h Child 2-4y = 160mg q4h Child 4-6y = 240mg q4hChild 6-9y = 320mg q4hChild 9-11y = 320-400mg q4h Child 11-12y = 320-480 mg q4h MAX 1625mg/24h Rx: Tylenol with Codeine – do not prescribe for children. Rx: **Periogard** (Chlorhexidine 0.12% Oral Rinse) Disp: 1 bottle (480ml) Sig: Twice daily after brushing teeth, swish one capful (15mL) in mouth for 30 seconds; use 10 days Rx: **Penicillin V** (250, 500mg tabs; 125 or 250mg/5mL) [Dosage: Adult = 125-500mg q6-8h Child (<12y) = 20-50 mg/kg/day in 4 divided doses qid] Rx: Amoxicillin (125,200,250,400,500mg caps or tabs; 125, 200, 250, 400mg/5mL) [Dosage: Adult = 250-500mg q8h Child  $(\langle 20kg \rangle) = 20-40 \text{mg/kg/day}$  in divided doses gid] Rx: Clindamycin HCl (75, 150, 300mg caps; 75mg/5mL) [Dosage: Adult = 150-300mg q6h Child =8-20mg/kg/day in 3-4 equally divided doses]