Operational Guide for School Oral Health Program

Appendices

Pediatric Vital Signs*

Age	Normal Heart Rate (Per Minute)	Normal Blood Pressure		Normal Respiratory Rate (Per Minute)
		Systolic (mm Hg)	Diastolic (mm Hg)	
Infant, 6 months	100 -160	87 – 105	53 – 66	24 – 40
Toddler, 2 years	80 – 110	95 – 105	53 – 66	22 – 34
School age, 7 years	65 – 110	97 – 112	57 – 71	18 – 30
Adolescent, 15 years	60 - 90	112 – 128	66 – 80	12 – 16

* *Cummins RO, et al, Advanced cardiac life support, Dallas, TX: American heart association,1997.*

Appendix: B

Average Dates of Calcification and Eruption of Primary and Permanent Dentition

Primary Dentition

Tooth	First Evidence of Calcification	Crown Completed	Tooth Erupts	Root Completed
A B	3 Months I.U (Intra uterine)	1 Year later	6 Months	1 1/2 Years later
D	4 Months I.U (Intra uterine)		12 Months	
C	5 Months I.U (Intra uterine)		18 Months	
E	6 Months I.U (Intra uterine)		24 Months	

Permanent Dentition

Tooth	First Evidence of Calcification	Crown Completed	Tooth Erupts	Root Completed
1 2 3	2 – 3 Months	4 Years later	Incisors: 6 – 9 Years Canines & Premolars 9 – 12 Years	3 Years later
4 5	2 – 3 Years			
6	At Birth		6 Years	
7	3 Years		12 Years	
8	9 Years		18 Years	

Appendix: C

Classification of Children's Cooperative Behavior*

The child's behavior should be noted at each appointment. Doing so will provide the dentist how the child behaved in the past & might give a future expectation of his behavior.

The scale used in school oral health program is the Frankl Classification .The scale divides observed behavior into four categories, ranging from definitely positive to definitely negative.

Frankl Behavioral Rating Scale

This scale will allow observing, coding & recording the child's behavior.

F1 – (Definitely negative): Refusal of treatment, crying forcefully, fearful or any other overt evidence of extreme negativism. (=)

F2 – (Relatively negative): Reluctant to accept treatment, uncooperative, some evidence of negative attitude such as sullen or withdrawn but not pronounced. (-)

F3 – (Relatively positive): Acceptance of treatment; at times cautious; willingness to comply, at times with reservation but patient follows the dentist's directions cooperatively. (+)

F4 – (Definitely positive): Good rapport with the dentist, interested in procedures, enjoys situation. (++)

These codes should be entered in the patient's records at every appointment, as the child's behavior may change during each visit. So that is necessary to use codes to illustrate the dynamics of changes.

**MacDonald RE, Avery DR. Dentistry for the Child and Adolescent,7th Edition, 2000.38-39*

Appendix: D

Root Resorption*			
Diagnosis	**Description**	**Treatment**	**Prognosis**
Internal Root Resorption			
Nonperforating	• A defect that occurs within the canal causing obliteration of the dentin. • Cause is unknown.	RCT	Good
Perforating	• A defect that occurs within the canal causing obliteration of dentin and the cementum or enamel. • Communication occurs with periodontium.	RCT and possibly surgery	Poor to guarded
External Root Resorption			
Surface Root Resorption	• Starts on the root surface. • Obliteration of cementum and sometimes dentin. • Cannot be detected on routine radiographs.	RCT with placement of calcium hydroxide (usually self-limiting)	Poor to guarded
Inflammatory Root Resorption	• Starts on the root surface. • Tremendously fast process. • Broad destruction of cementum. • Can be caused by bacteria, trauma to the periodontium or necrotic pulp tissue.	Immediate RCT	Prognosis depends on when the condition is recognized and how soon treatment is implemented
Replacement Root Resorption	• Starts on the root surface. • Chronic process. • Extensive destruction of cementum and dentin can occur; replaced by bone. • Ankylosis will occur.	Possible RCT	Prognosis usually good

**Lehman RA. Handbook of Clinical Dentistry. Lexi- Comps Dental Reference Library, 2005 Page 52.*

Appendix: E

Management of Postoperative Complications*		
Complications	**Description**	**Treatment**
Bleeding	It is normal for the socket to ooze for several hours after the procedure and to have red tinge in sputum for 24 hours after extraction.	Have patient bite on damp gauze and instruct them to replace the gauze every 15-20 minutes until the bleeding stops. Suturing may assist in pressure and maintaining blood clot.
Pain	Patient can expect to experience mild discomfort following a routine extraction. In more complex surgical extraction, moderate to severe pain is expected.	Often Panadol or Ibuprofen is adequate. See prescription medications for listing of commonly used analgesics.
Ecchymosis	Warn patients that this is a possibility and that they should not be alarmed.	The presence of ecchymosis does not increase pain or risk of infection.
Edema	For most simple extractions, little to no swelling will occur. For more complex surgical cases, swelling can be expected to reach its maximum in 48-72 hours.	On day of the surgery, apply ice on and off at 20-minute intervals to prevent swelling. On third day after surgery apply heat to reduce swelling.
Trismus	Make sure to inform the patient of this possibility, as it may be alarming if it arises unexpectedly.	May also be due to inflammation of the muscles of mastication, or inadvertent penetration of the medial pterygoid muscle during an inferior alveolar nerve block. Most often resolves without treatment.
Alveolar Osteitis (Dry Socket)	Patients experience moderate to severe pain with no other signs of infection beginning 3-4 days after extraction. Exam reveals an empty socket, with no blood clot, and the bone exposed. Patient may also experience a bad taste in mouth.	Gently irrigate the socket. Insert a medicated dressing into the socket containing eugenol (obtunds the pain). If a portion of the blood clot remains in the socket, it should not be removed. The dressing should be changed every 1-2 days for the next 3-6 days. The socket should be irrigated at each changing.

**Lehman RA. Handbook of Clinical Dentistry. Lexi- Comps Dental Reference Library, 2005 Page 92.*

Appendix: F

Color Coding of Local Anesthetic Cartridges*

Newly mandated uniform system for local anesthesia cartridges bearing the ADA Seal of Acceptance

Color Code Format		
Product	**Color**	
Lidocaine 2% with Epinephrine 1:100,000	Red	Red 185
Lidocaine 2% with Epinephrine 1:50,000	Green	Green 347
Lidocaine Plain	Light Blue	L. Blue 279
Mepivacaine 2% with Levonordefrin 1:20,000	Brown	Brown 471
Mepivacaine 3%	Plain Tan	Tan 466
Prilocaine 4% with Epinephrine 1:200,000	Yellow	Yellow 108
Prilocaine 4%	Plain Black	Black
Bupivacaine 0.5% with Epinephrine1:200,000	Blue	Blue 300
Articaine 4% with Epinephrine 1:100,00	Gold	Gold 871

- Recommended color coding system for local anesthetic cartridges from the council on Scientific Affairs of the American Dental Association.
- Dental cartridges are suggested to have Color band, specific for each local anesthetic/ vasoconstrictor, with the name in large black letters. This labeling conforms to FDA labeling guidelines.

**From color coding for local anesthesia, ADA News. 34[8]:28, April 21, 2003.*

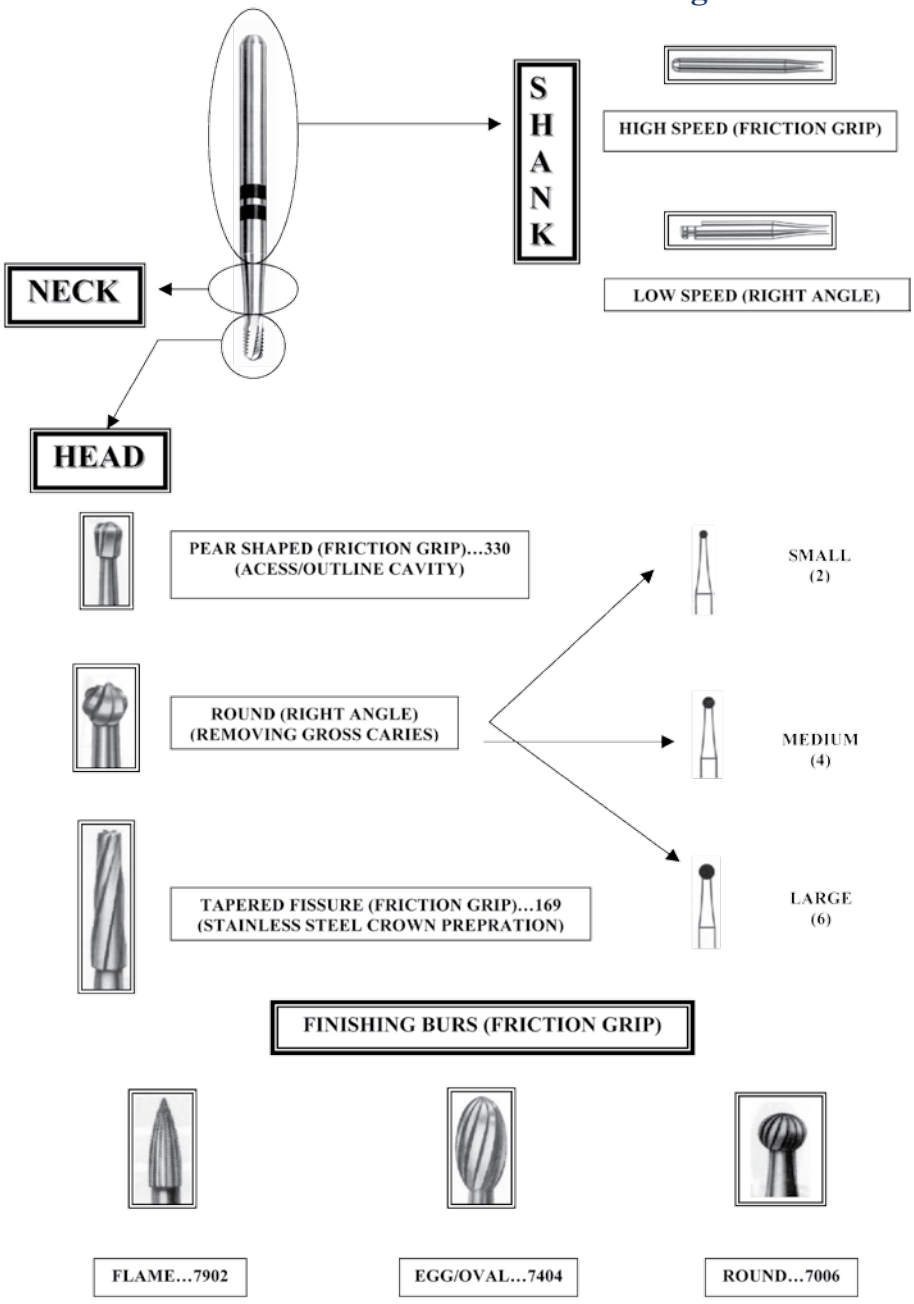
Appendix: G

Standard Bur Shapes & Sizes*								
Head Size	Round	Inverted Cone	Pear	Straight fissure	Tapered fissure	Wheel	Oval	Flame
0.5mm	1/4							
0.6mm	1/2	33 ½		55 ½		11½		
0.7mm			329					
0.8mm	1	34	330 (L) or 245	56		12		
0.9mm					169(L)			
1.0mm	2	35		57				242
1.2mm	3	36		58	171(271)	14		243
1.4mm	4	37		59				244
1.6mm	5	38		60	172(272)	16		245
1.9mm	6	39		61				246
2.1mm	7	40	230	62			218	
2.3mm	8							
2.5mm	9		231				219	
2.8mm	10							
3.0mm	11		232				220	
Add #500 for crosscut burs – Add #900 for end cutting burs								

** American Dental Association," Council on dental research adopts standards for shapes and dimensions of excavating burs and diamond instruments" J Am Assoc, 1963.67.943.*

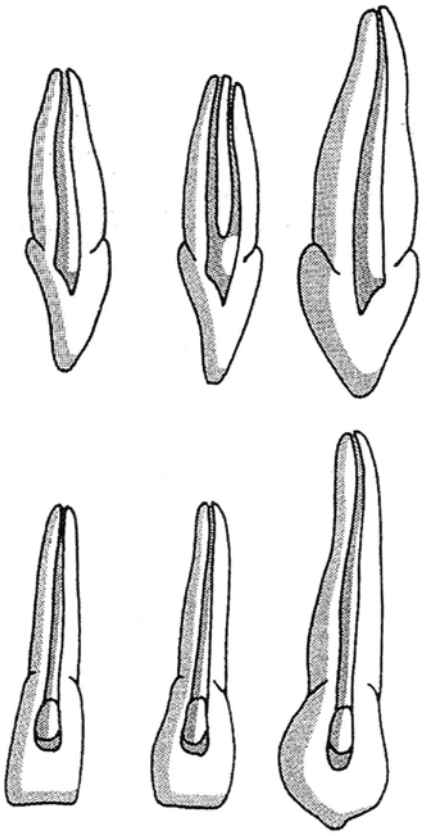
Appendix: H

Burs Used in School Oral Health Program



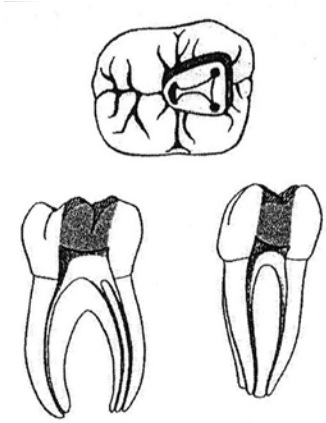
Appendix: I

Access Openings of Permanent Teeth

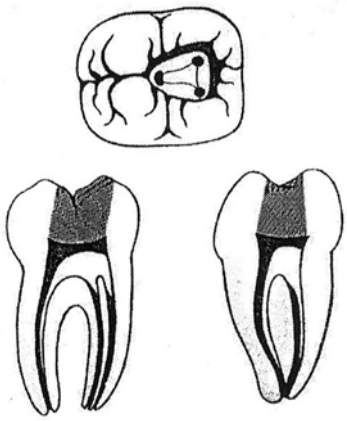


A B C

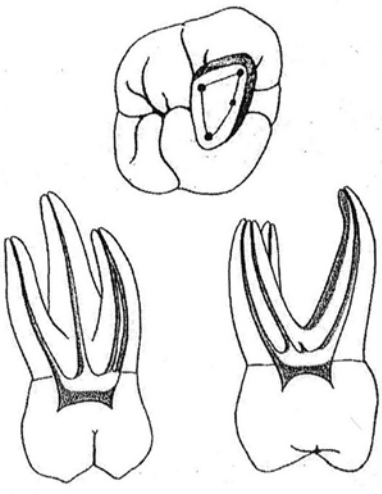
Maxillary anterior teeth, proximal and lingual views.
A, Central incisor. B, Lateral incisor, C, Canine



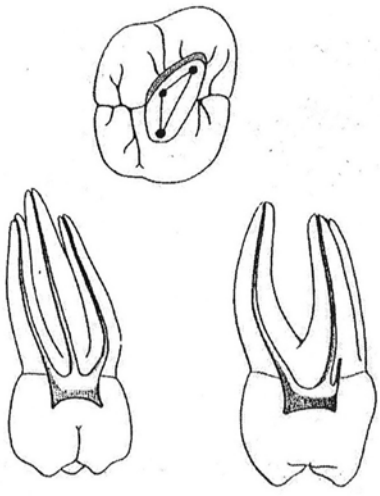
Mandibular first molar



Mandibular second molar

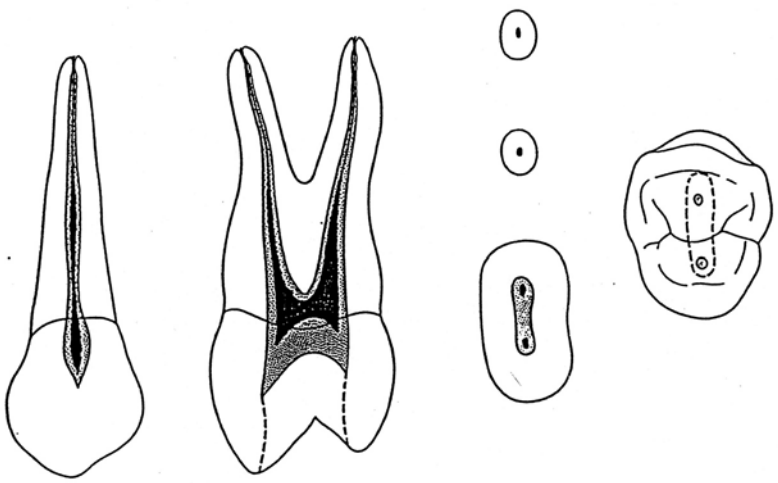


Maxillary first molar

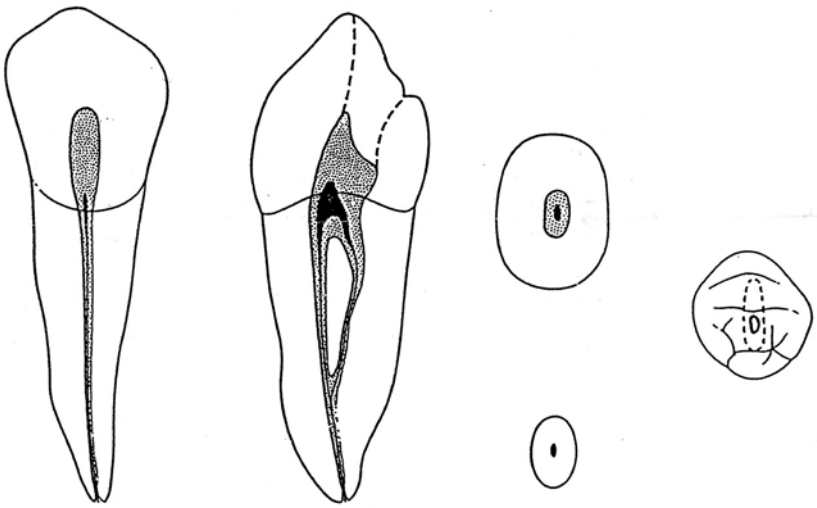


Maxillary second molar

Endodontic morphology and access cavities

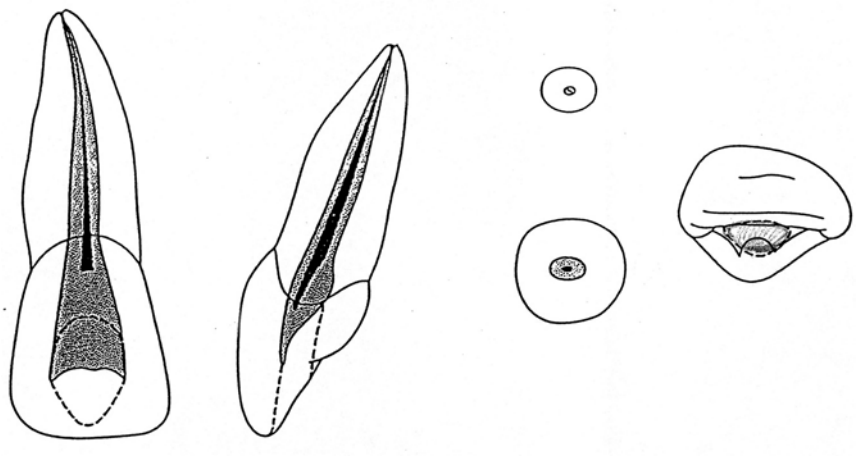


Maxillary first premolar with two roots

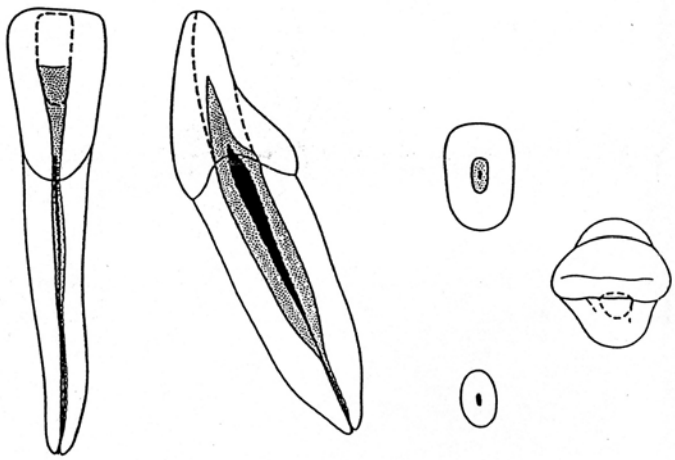


Mandibular first premolar

Endodontic morphology and access cavities



Maxillary central incisor with a Type I configuration



Mandibular central incisor with a Type I canal configuration

Appendix: J

Normal Ranges for Hematological Measurements in Males and Females*

Parameter	Normal Range(Males)	Normal Range(Females)
Red Cell Count	4.5-6.5x10^{12}/L	3.9-5.6x10^{12}/L
White Cell Count	4.0-11.0x10^{9}/L	4.0-11.0x10^{9}/L
Platelets	150.0-400.0x10^{9}/L	150.0-400.0x10^{9}/L
Reticulocytes	25-100x109/L	25-100x109/L
Erythrocyte Sedimentation Rate	Upper limit=age in years ÷ 2	Upper limit=(age in years+10) ÷2
Hematocrit	0.4-0.54	0.37-0.47
Hemoglobin	13.5-18.0g/dL	11.5-16.0g/dL
Mean Cell Volume	76-96 fl	76-96 fl
Mean Cell Hemoglobin	27-32 pg	27-32 pg
Mean Cell Hemoglobin Concentration	30-36g/dL	30-36g/dL
Red Cell Folate	0.36-1.44 μmol/L	0.36-1.44 μmol/L
Vitamin B_{12}	0.13-0.68 nmol/L	0.13-0.68 nmol/L
Prothrombin Time	10-14 seconds	10-14 seconds
Activated Partial Throboplastin Time	35-45 seconds	35-45 seconds

**Meechan JG, Greenwood M. General medicine and surgery for dental practitioners, part 9: Hematology and patients with bleeding problems. BDJ, 2003; 195(6), September. 305-310.*

Appendix: K

Risk Categories for Patients with Diabetes Mellitus*

Patients at low risk: Metabolic control. No history of ketoacidosis or hyperglycemia. Fasting glucose level less than 200mg/dl (11.1mmol/L). HbA1c less than 7%.
Patients at moderate risk: Reasonable metabolic control. No recent history of ketoacidosis or hyperglycemia. Fasting glucose level less than 250mg/dl (13.8mmol/L). HbA1c 7-9 %.
Patients at high risk: Poor metabolic control Frequent ketoacidosis and hyperglycemia. Fasting glucose level greater than 250mg/ dl Hb A1c greater than 9 %.

**Sonic ST, Fazio RC, Fang L. Principles and practice of oral medicine, 2nd edition, 1995. W.B.Saunders. Page 134*