

# Local Anesthesia Didactic & Clinical Examinations 2024 CANDIDATE MANUAL



**Please read all pertinent manuals in detail prior to attending the examination**

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# PREPARING FOR THE LOCAL ANESTHESIA EXAMINATION

## Anonymity of the Examination

The Local Anesthesia clinical examination is administered by examiners and is not an anonymous examination. However, your name or school identification must not appear on any of the examination materials, equipment, instruments or clothing.

## General Information

The Local Anesthesia Examination has separate computer-based **Didactic** and **Clinical** components. In those jurisdictions that require completion of a clinical exam for local anesthesia licensure or certification, the Local Anesthesia Examination is comprised of two components: a Computer-based Didactic Exam and a Patient-based Clinical Exam. Both components must be successfully completed (passing score of 75.00 or above) in order to achieve an overall passing score. Contact the individual state licensing agency from which you are seeking licensure for their local anesthesia licensure requirements.

**Official Resources.** Candidates are responsible for reading and understanding the Candidate Manual in conjunction with the Candidate Guide and noted materials published by the CDCAWREB-CITA. Candidates bear all risk of any misunderstanding resulting from the use of or reliance on unofficial information or materials.

- **Candidate Guide.** Refer to the Candidate Guide for information regarding **exam eligibility and education requirements, identification requirements**, candidate conduct/misconduct policies, computer-based testing accommodations, and more available at [ADEXtesting.org](http://ADEXtesting.org).
- **Candidate Manual.** Patient criteria, performance expectations, and clinical examination forms are available at [ADEXtesting.org](http://ADEXtesting.org).
- **Test Prep.** Local Anesthesia Clinical examination review video is accessible via the [Test Prep](#) page or the [CDCA-WREB-CITA Media YouTube](#) page.
- **Site Info Sheet.** Site-specific information pertaining to the exam site host, such as school-provided supplies, rental equipment, infection control protocols, etc. can be found in the *Site Info Sheet* for the respective exam site host on the [ADEXtesting.org](http://ADEXtesting.org) website.
- Submit any **exam-related questions** via [Contact Us](#) prior to the exam or onsite to CDCA-WREB-CITA personnel.

**Clinical Scheduling Requests.** Scheduling requests may be submitted via the “My Registration” button of your [Candidates.ADEXtesting.org](http://Candidates.ADEXtesting.org) profile or via [Contact Us](#) prior to the **Registration Deadline** for a given exam for consideration. Scheduling requests are **not guaranteed**.

Scheduling request options may include:

- Specific clinical examination day/date
- Using a **fellow candidate (name)** as a patient; both candidate names required

Candidates using a fellow candidate as a patient are scheduled an hour or more apart to accommodate both injections—yours and theirs. Once released, exam schedules are not changed.

## **Didactic Examination (computer-based)**

The purpose of the computer-based CDCA-WREB-CITA Local Anesthesia Didactic Examination is to evaluate your knowledge, application, and problem-solving skills regarding the safe and appropriate use of local anesthesia.

**Exam Appointment Scheduling.** Once your registration has been processed, it may take up to 24 hours or more for the green “Schedule My Computer-based Exam Appointment” ribbon to display in your online [Candidates.ADEXtesting.org](https://Candidates.ADEXtesting.org) portal. All the information necessary to schedule your computer-based Didactic examination appointment at a **Prometric Test Center** location is contained within the ProScheduler application of your online profile.

The timed examination is 60 minutes. Multiple choice items are both discipline and case-based and have only one correct response. Up to five (5) field test questions are included, but not calculated in your final score.

Multiple test forms are used to ensure the integrity and security of the examination. To address any possible variation in difficulty level among the various examination forms, equating procedures are used to ensure candidates of comparable competency will be equally likely to pass the examination.

A maximum of 100 points is possible and final score of 75.00 or higher is required to pass the Local Anesthesia Didactic examination.

### **Subject matter includes:**

- Anatomy (head and neck) and physiology.
- Pharmacology of anesthetic agents and vasoconstrictors, clinical actions and maximum recommended doses of specific agents. Basic knowledge of nitrous oxide-oxygen.
- Method of delivery of local anesthesia, including armamentarium, selection of injection type, and administration technique.
- Medical history interpretation; prevention, recognition, and management of possible complications, and life support.

Candidates are notified via email once official examination results are available, generally within 2 business days of exam completion. Official results are posted to your online candidate portal and accessed using your secure username and password.

**NOTE:** Successful completion of the Didactic (computer-based) exam (passing score of 75.00 and above) is required up to 12 months, but no less than 15 days, prior to attempting the Clinical exam.

**Didactic Examination Retakes.** Eligible candidates may apply online for a retake of the Local Anesthesia Didactic Examination via their candidate portal at [Candidates.ADEXtesting.org](https://Candidates.ADEXtesting.org).

**NOTE.** In those jurisdictions that require completion of a clinical exam for local anesthesia licensure or certification, the Local Anesthesia Examination is comprised of two components: a Computer-based Didactic Exam and a Patient-based Clinical Exam. Both components must be successfully completed (passing scores) to achieve an overall passing score. Refer to the [Local Anesthesia Clinical Examination Candidate Manual](#) for more information.

## Clinical Examination

The purpose of the CDCA-WREB-CITA Local Anesthesia Clinical Examination is to evaluate a candidate's ability to utilize professional judgment and knowledge to competently administer both an Inferior Alveolar (IA) and a Posterior Superior Alveolar (PSA) nerve block injection on a Patient.

**Clinical Examination Schedules.** Approximately one (1) month prior to the clinical exam, individual examination schedule will be posted to the [Candidates.ADEXtesting.org](http://Candidates.ADEXtesting.org) online portal.

## Equipment and Materials

**Armamentarium.** You must provide the following:

- Aspirating syringes only
- Hemostat or locking pliers.
- Blood pressure measuring device.
- Candidate and Patient appropriate protective eyewear with side shields (over-glasses or side shields, if wearing personal eyewear).

**Site-Provided Equipment and Supplies.** The exam site host (school) provides expendable materials for candidate use during the examination. The school is responsible for any deviation from this list. Materials provided are the brands used by the school. If you wish to use a specific brand, you must bring it with you.

Do not assume that exam sites (schools) have extra instruments or equipment available for rent. Site-specific information can be found in the **Site Info Sheet** for the respective exam site host at [ADEXtesting.org](http://ADEXtesting.org). Contact the exam site host directly with any site-specific questions regarding equipment, rental availability, etc.

**Equipment Malfunctions.** School personnel are available throughout the examination to resolve malfunctions of operatories and school equipment. Candidates should familiarize themselves with available school equipment during the clinic tour. Neither CDCA-WREB-CITA nor school personnel will be responsible for time lost due to the malfunction of any personal equipment.

Notify the Chief Examiner immediately of any malfunction of school equipment. An appeal cannot be based on loss of clinic time if the incident is not reported to the onsite Chief Examiner.

Expendable Local Anesthesia Materials provided by Exam Site Host (School)		
2x2 gauze squares	Barrier covers/tape	Patient napkins/bibs
Air/water syringe tips	Cotton-tip applicators	Sanitizing materials
Antimicrobial mouthwash	Drinking cups	Soap
Anesthetic(s) <ul style="list-style-type: none"><li>• Local anesthetic(s) with and without vasoconstrictor</li><li>• Topical anesthetic(s)</li></ul>	Face Masks	Standard saliva ejectors
	Facial Tissue	Surface disinfectant
	Gloves, nonlatex (S,M,L,XL)	Syringe Needles (long/short)
	Headrest covers	Tray covers
Autoclave bags, small	Instrument trays, disposable	Trash bags
Autoclave bags, medium	Paper towels	
Autoclave tape	Patient bib clips, disposable	

## Patient Criteria

It is your responsibility to submit a Patient that meets the examination criteria.

All medical clearances must be written on the health care provider's letterhead, indicate clearance for the examination date range, and reflect any necessary alterations in treatment.

A Patient must meet all of the following criteria:

1. 18 years of age or older.
2. **Cannot** be a dentist, dental hygienist, or dental hygiene educator.
3. a) **Mandibular dentition.** At least one mandibular premolar present on the contralateral side of the submitted quadrant.  
b) **Maxillary dentition.** Maxillary second molar present in the submitted quadrant.
4. Medical clearance if a Patient is pregnant.
5. Medical clearance and/or antibiotic coverage if the Patient has had a heart attack, stroke, or cardiac surgery within the past six (6) months.
6. Preoperative blood pressure and pulse must be recorded on the *Medical History/Patient Consent* form and taken on the Patient no more than one hour prior to the scheduled clinical examination time.  

Systolic blood pressure of 159 or below and a diastolic blood pressure reading of 99 or below are acceptable. \*\*A Patient with a systolic blood pressure reading of 160-180 or a diastolic blood pressure reading of 100-110 will only be accepted with written medical clearance.

A Patient with a systolic reading greater than 180 or a diastolic reading greater than 110 is not allowed.
7. No orofacial herpes at the vesicle, ulcerated vesicle, or prodrome stage.  
No intraoral sore or puncture mark in the two (2) potential penetration sites.
8. ASA I or II. ASA III status that does not alter dental hygiene care or pose a risk to the Candidate or Patient in a testing environment.

### The Patient must not have:

1. Active tuberculosis.
2. Previous Intravenous bisphosphonates therapy.
3. Used cocaine or methamphetamine drugs within the past 24 hours.
4. Any condition, medication or drug history that might be adversely aggravated by the length or nature of the examination procedures.
5. An Absolute contraindication to anesthetic/vasoconstrictor

Failure of the examination will result if the patient is rejected for any of the above reasons.

If your first patient has a puncture mark or an intraoral sore or at the injection site, you must submit the other side.

If your patient has active oral herpes or high blood pressure you must submit a different Patient. Subsequent Patient submissions are subject to all Patient criteria for acceptance. If you are unable to submit a back-up patient, you will be registered as a "No Show" Candidate. Refer to the "No Show" Candidate section of this manual for more information.

## Grading Criteria

You will be expected to perform both injections within 20 minutes. If you are unprepared, or taking a considerable amount of time, the examiners will remind you of the time restraints.

## Critical Aspects and Less Critical Aspects of Injection

Each aspect of the injection is classified as **critical** or **less critical**. Eight (8) critical aspects of the injection have an asterisk (\*). One (1) critical aspect error validated by both examiners, results in failure of the examination. Three (3) less critical aspect errors in Category 2 (validated by both Examiners) results in failure of the examination.

You may change your submission, without penalty, at any time prior to an examiner checking landmark teeth and penetration sites.

### \*1. Medical History, Oral Conditions, Anesthetic and Syringe Selection

#### Medical History

##### Errors:

- See *Patient Criteria*

#### Oral Conditions

##### IA Injection Errors:

- Missing both mandibular premolars on the contralateral side
- Intraoral sore or puncture mark at the injection site
- Orofacial herpes is failure of both injections

##### PSA Injection Errors:

- Missing maxillary second molar in the submitted quadrant.
- Intraoral sore or puncture mark at the injection site
- Orofacial herpes is failure of both injections

#### Anesthetic & Syringe Selection

##### Errors:

- Long-acting anesthetic
- High concentration vasoconstrictor
- Self-aspirating or non-threading syringe

### 2. Syringe Preparation and Handling

#### Armamentarium

##### Errors:

- Appropriate protective eyewear is not worn by the candidate and/or patient
- Locking pliers or hemostat not present
- Expired local anesthetic
- Anesthetic selection (the needle length does not match *Local Anesthesia Information Sheet*)

#### Syringe Properly Prepared

##### Errors:

- Harpoon is not securely engaged
- Large bubbles not expelled from cartridge prior to injection
- Expelled solution is more than stopper width
- Needle not securely attached to the syringe

## **Syringe Handling**

### **Error:**

- Syringe in patient's field of vision prior to injection

## **\*3. Penetration Site**

### **Needle Contamination**

#### **Error:**

- Needle touches any surface, facial anatomy or intraoral object (gauze, glove) prior to penetration. Proceeding with a contaminated needle results in failure of the injection.

### **Three Penetrations Allowed**

Penetration of the tissue is considered an attempt. Three (3) penetrations are allowed to obtain the optimum angle and depth. If the third penetration results in a first positive aspiration, a fourth penetration is permitted.

#### **Error:**

- Optimum depth and angle is not obtained in three (3) penetrations

### **Optimum IA Nerve Block Penetration Site**

The penetration site is at the area bordered medially by the pterygomandibular raphe, laterally by the internal oblique ridge, and at the height of the coronoid notch.

#### **Errors:**

- Too superior
- Too inferior
- Too medial
- Too lateral

### **Optimum PSA Nerve Block Penetration Site**

The penetration site is at the height of the vestibule in the mucobuccal fold, posterior to the zygomatic process of the maxilla (visually, this approximates the distal facial root of the 2nd molar).

#### **Errors:**

- Too anterior
- Too posterior
- Not in the mucobuccal fold

## **\*4. Angle and Depth**

### **Optimum IA Angle and Depth**

When you have reached the optimum depth, the barrel of the syringe should be positioned over the premolars on the contralateral side and the needle parallel to the occlusal plane of the mandibular teeth.

The depth of insertion is 20 mm - 25 mm (**approximately 2/3 the length of long needle or 4/5 the length of short needle**).

#### **Errors:**

- Barrel too distal
- Barrel too mesial
- Angle too high
- Angle too low
- Too shallow
- Too deep



### **Optimum PSA Angle and Depth**

When you have reached the optimum depth, the barrel of the syringe must be positioned 45 degrees to the occlusal plane and 45 degrees to the midline.

The depth of insertion is approximately 16 mm (**about 1/2 the length of a long needle or 3/4 the length of a short needle**).

#### **Errors:**

- Barrel of the syringe not at 45-degree angle toward midline and/or barrel of the syringe not at 45-degree angle to occlusal plane
- Too shallow
- Too deep

### **\*5. Aspiration**

#### **Large Window Visible**

Upon aspirating, the large window must be toward the Candidate.

#### **Error:**

- Small window toward the candidate

#### **Aspiration Observed**

#### **Errors:**

- No visible movement of the stopper upon aspiration
- Harpoon is not engaged after aspiration is declared to be negative

#### **Proper Handling of Positive Aspiration**

A positive aspiration is observed and handled correctly.

#### **Errors:**

- Proceeding after aspiration when a significant amount of blood is present in the cartridge
- Failing to recognize a positive aspiration

### **\*6. Amount and Rate**

#### **Deposition of Anesthetic Prior to Aspiration**

#### **Error:**

- More than 1/4 of the anesthetic is deposited in the tissue, prior to reaching the optimum depth and before aspiration.

#### **Rate of Administration is Acceptable**

Acceptable rate of depositing anesthetic is approximately fifteen (15) seconds for two (2) stopper widths.

#### **Error:**

- Rate of deposition is approximately 12 seconds or less for two (2) stopper widths of anesthetic.

### **\*7. Tissue Management**

Tissue Management is observed throughout the administration of the injection.

#### **Errors:**

- Needle is visibly bent upon removal from tissue
- Degree of the bowing would likely result in excessive submucosal soft tissue injury
- Visible laceration of tissue upon approach or withdrawal of the needle with or without bleeding
- Safety and well-being of the patient is compromised

## \*8. Recapping

Recapping is observed throughout the examination.

### **Proper Recapping Technique**

A one-handed recapping technique is required. Once the needle is safely inside the needle cap (protected), the cap must be secured.

### **Errors:**

- A two-handed recapping technique is observed during recapping
- Holding the needle cap with a hemostat or locking pliers

## \*9. Sharps Disposal

All needles and cartridges must be disposed of properly and according to exam site host (school) policy. Sharps Disposal is evaluated after the completion of both injections.

### **Errors:**

- Sharps and cartridges are not properly disposed of according to exam site host (school) policy
- Two-handed recapping is observed

**Improper Sharps Disposal will result in failure of both injections.**

## **Stop and Hold/Failure of the Injection**

When any procedure poses a health or safety risk to the Patient a Stop and Hold is announced. This signifies that a **critical error** has occurred and results in failure of that injection.

You must stop and hold your position. If the needle has penetrated the tissue, you will be instructed to withdraw.

The following are reasons for Stop and Hold:

- Absolute contraindication to anesthetic/vasoconstrictor
- Long-acting anesthetic
- High concentration vasoconstrictor
- Needle Contamination
- Three Unsuccessful Penetrations
- Small window toward candidate upon aspiration
- No visible movement of the stopper
- Harpoon is not engaged upon aspiration
- Improper handling of a positive aspiration
- More than  $\frac{1}{4}$  of the anesthetic is deposited prior to reaching deposition site (for depth and angle)
- Rate of deposition is too rapid
- Improper Tissue Management
- Improper Recapping
- Improper Sharps Disposal

## Onsite Question and Answer Session/Clinic Tour

An onsite Question and Answer (Q&A) Session is held prior to your scheduled examination. The Chief Examiner or Exam Technical Coordinator (ETC) will verify candidate identification and distribute exam materials.

The following forms are provided during the onsite Q&A Session:

- *Patient Medical History/Patient Consent* form
- *Local Anesthesia Injection Information Sheet*

The Clinic Tour is optional and will familiarize you with the exam site host (school) clinic layout, emergency protocols, infection control policies, proper disposal of biohazardous and pharmaceutical materials, and operation of the equipment.

To expedite the flow of the examination, complete the Patient Medical History/Patient Consent form prior to clinic entrance.

**“No Show” Candidate.** You may opt to withdraw from the exam and forfeit your examination attempt and registration fees for the following reasons:

- You do not have required items or are not dressed in proper clinic attire at your assigned clinic time.
- You are late for your assigned clinical examination.
- Your first patient has been rejected for active oral facial herpes or high blood pressure.

Withdrawal for any other reason constitutes failure of the examination.

## Day of the Exam

### Clinic Entrance and Exam Procedures

Arrive onsite and be prepared 30 minutes prior to your scheduled time. Candidates will be notified when to enter the clinic and directed to their operatory. After set-up, you will be instructed to bring your patient back.

If you did not attend the Q&A Session, the Chief Examiner will verify your identification and distribute your exam materials prior to clinic entrance.

An Examiner will check the following:

- *Patient Medical History/Patient Consent* form
- Two penetration sites
- Landmark teeth are present in each submitted quadrant
- Locking pliers or hemostat present
- Syringe selection correct
- Patient and Candidate eyewear present
- Anesthetic selection matches *Local Anesthesia Information Sheet*

No more than two prepared syringes may be present on your tray. Additional cartridges and needles can be set aside on a non-contaminated surface to load. Do not loosen the needle cap(s) until instructed by the Chief Examiner.

The anesthetic type and expiration date on the cartridge should be visible for Examiner review.

Examiners will instruct you when to apply topical; however, topical anesthetic use is at the discretion of the patient.

The inferior alveolar (IA) nerve block injection will be administered first. The inferior alveolar (IA) nerve block and posterior superior alveolar (PSA) nerve block may be performed on the same side or opposite side of the mouth.

Two (2) examiners will observe your technique. Both injections must be performed to criteria to pass the clinical examination. (You may describe your actions as the injection is being performed.)

**Pause and Announce.** There are four (4) times that you must pause and announce each critical phase of the injection.

1. **Initial Penetration.** After the needle has penetrated the tissue, stop and hold the position. Wait until instructed to proceed.
2. **Angle and Depth.** Advance to the deposition site. Inform the Examiners when you have reached the optimum depth and angle. Wait until instructed to proceed.
3. **Aspiration.** Announce that you are aspirating and whether the aspiration is positive or negative. If the aspiration is negative, wait until instructed to proceed.

If the aspiration is positive, an Examiner will ask, "How you would like to proceed?" Use your professional judgment in determining how to handle the situation. A positive aspiration on two (2) attempts does not automatically result in failure.

**NOTE:** Aspiration is required on only one (1) plane. There is no penalty if an aspiration is completed on two (2) planes.

4. **Deposition Rate.** Inform the examiners prior to depositing anesthetic. You will be instructed when to withdraw.

Your technique is evaluated at each critical aspect. After observing each critical aspect, one examiner will say "I see" and the other examiner will state, "Proceed."

Upon completion of the IA nerve block, secure the cap or proceed to the PSA nerve block.

## Completion of Examination

After completion of both injections, perform the following:

1. Properly dispose of contaminated sharps and cartridges. Refer to exam site host (school) policy regarding unused anesthetic cartridges.
2. Record on the *Anesthesia Information Sheet*, the total volume of local anesthetic (in milliliters or milligrams) administered.
3. Dismiss your patient, remove barriers, disinfect operatory and exit the clinic.
4. Return any unused Candidate ID Labels and any applicable *ITCs* to the designated location.

## Preliminary Results Reporting

Candidates are notified of their preliminary examination **results via text** (844). If not received, login at [Candidates.ADEXtesting.org](https://Candidates.ADEXtesting.org) to verify or edit the phone number displayed in the "My Account – Personal Info" section of your online profile. If necessary, contact the onsite ETC to resend the preliminary results text.

If unsuccessful, any applicable criterion (reason for failure) will be displayed. Discussion with examiners or staff regarding performance or reasons for failure is prohibited.

To register for a same-day onsite retake exam, utilize the “**Schedule Retake - Today**” link provided in your preliminary examination results text. Complete payment using a valid credit or debit card—Visa or Mastercard. Once complete, contact the onsite ETC to receive your assigned retake time and examination forms.

### **Optional Onsite Retake Examination**

An onsite fee-based retake is available during the examination for eligible candidates. A retake is considered a separate examination and included in your total number of examination attempts.

Candidates are permitted up to four (4) unsuccessful attempts of the Clinical Examination at two (2) separate exam locations prior to remediation (Clinical + Retake = two attempts).

If you elect to retake the exam at the same location, you will perform only the failed injection(s). If you re-attempt the examination at another location, you will be required to perform both IA and PSA nerve block injections, and pay both the registration fee and facility fee.

**Performance Evaluation.** Exam criteria and scoring are the same.

**Patient Criteria Options.** Your same patient or a new patient may be submitted. When submitting a previous patient, the injection(s) must be performed on the opposite side.

If an unsuccessful examination attempt occurred prior to penetrating the tissue (i.e., needle contamination) the retake may be performed on the initial side.

**Notification of Results.** Candidates will be notified via email once official examination results are available, generally within 72 hours of the last date of the scheduled clinical examination. Candidate portal can be accessed via [Candidates.ADEXtesting.org](http://Candidates.ADEXtesting.org).

CDCA-WREB-CITA is a testing agency, not a licensing authority. Successful completion of an examination does not constitute licensure in any state or jurisdiction. It is illegal to render patient treatment until a license or certificate is issued by the state or jurisdiction. Contact the respective licensing authority directly for information regarding licensure or certification. See [Candidate Guide](#) and [Scores](#) page of [ADEXtesting.org](http://ADEXtesting.org) website for results reporting information.

### **REFERENCES**

Bassett, K.B., DiMarco, A.C., Naughton, D.K. (2015) *Local Anesthesia for Dental Professionals (2nd ed.)*. Upper Saddle River: Pearson Education.

Logothetis, D.D. (2017). *Local Anesthesia for the Dental Hygienist (2<sup>nd</sup> ed.)*. St. Louis: Elsevier.

Malamed, S.F. (2015). *Medical Emergencies in the Dental Office (7th ed.)*. St. Louis: Elsevier Mosby.

Malamed, S.F. (2013). *Handbook of Local Anesthesia (6th ed.)*. St. Louis: Elsevier Mosby.

To assist Candidates in preparing for the Local Anesthesia Didactic (computer-based) examination, the following chart was referenced when constructing MRDs and local anesthesia dosage items.

## Adult MRDs and Local Anesthesia Drug Information

Local Anesthetic Drugs	Vasoconstrictor	MRD (mg/lb)	MRD (mg/kg)	MRD ** Absolute (mg)	Duration Category	Pulpal Anesthesia (approximate minutes)	Soft Tissue Anesthesia (approximate minutes)
4% articaine * (w/ vaso)	epinephrine 1:100,000	3.2	7.0	weight dependent	Intermediate	60-75	180-300
4% articaine * (w/ vaso)	epinephrine 1:200,000	3.2	7.0	weight dependent	Intermediate	45-60	120-300
0.5% bupivacaine *	epinephrine 1:200,000	0.9	2.0	90	Long	90-180	240-540
2% lidocaine (w/vaso)	epinephrine 1:50,000	3.2	7.0	500	Intermediate	60	180-300
2% lidocaine (w/vaso)	epinephrine 1:100,000	3.2	7.0	500	Intermediate	60	180-300
3% mepivacaine (plain)	None	3.0	6.6	400	Short	20-40	120-180
2% mepivacaine (w/ vaso)	levonordefrin 1:20,000	3.0	6.6	400	Intermediate	60	180-300
4% prilocaine (plain)	None	4.0	8.8	600	Short (I) Intermediate (B)	10-15 (I) 40-60 (B)	90-120 (I) 120 - 240 (B)
4% prilocaine (w/ vaso)	epinephrine 1:200,000	4.0	8.8	600	Intermediate	60-90	180-480

Infiltration/supraperiosteal = (I)

Block = (B)

\* No FDA weight-based recommendation, MRD= 90 mg. Health Canada weight-based recommendation 0.9 mg/lb or 2.0 mg/kg.

\*\* Dosages reflect specific local anesthetic drugs, individual absolute MRDs may also be adjusted for vasoconstrictor limits.

Source: Adapted from Bassett, K.B. DiMarco A.C, Naughton D.K (2015) Local Anesthesia for Dental Professionals (2nd ed.) Upper Saddle River: Pearson Education

## AAPD Pediatric MRDs and Local Anesthesia Drug Information

Local Anesthetic Drugs Color Coded Box	Vasoconstrictor	MRD (mg/lb)	MRD (mg/kg)	MRD Absolute (mg)	Duration Category	Pulpal Anesthesia (approximate minutes)	Soft Tissue Anesthesia (approximate)
4% articaine (w/ vaso)	epinephrine 1:100,000	3.2	7.0	500	Intermediate	60	180-300
4% articaine (w/ vaso)	epinephrine 1:200,000	3.2	7.0	500	Intermediate	45	120-300
0.5% bupivacaine	epinephrine 1:200,000	0.6	1.3	90	Long	40	240-540
2% lidocaine (w/vaso)	epinephrine 1:50,000	2.0	4.4	300	Intermediate	60	190
2% lidocaine (w/vaso)	epinephrine 1:100,000	2.0	4.4	300	Intermediate	60	180-300
3% mepivacaine (plain)	None	2.0	4.4	300	Short	25 (I) 50 (B)	120-180
2% mepivacaine (w/ vaso)	levonordefrin 1:20,000	2.0	4.4	300	Intermediate	50	180-300
4% prilocaine (plain)	None	2.7	6.0	400	Short (I) Intermediate (B)	20 (I) 40-60 (B)	90-120 (I) 120 - 240 (B)
4% prilocaine (w/ vaso)	epinephrine 1:200,000	2.7	6.0	400	Intermediate	60-90	180-480

Infiltration/ supraperiosteal = (I)

Block = (B)

This chart is adapted from AAPD Guidelines: Use of Local Anesthetic (2015)

**SAMPLE FORM**

**PATIENT CONSENT AND ASSUMPTION OF RISK**

CDCA-WREB-CITA, a non-profit corporation is a national dental and dental hygiene testing agency required to test candidates' clinical skills for the states that accept the results of CDCA-WREB-CITA examinations. This involves doing certain types of dental procedures for volunteer patients.



**LOCAL ANESTHESIA  
PATIENT MEDICAL HISTORY**

CANDIDATE ID LABEL

PATIENT FIRST NAME \_\_\_\_\_  
DATE OF BIRTH \_\_\_\_\_

Circle "YES" or "NO" to all questions. "YES" responses must be circled in RED.



Do you have or have had any of the following?

- |                                   |            |           |                                |            |           |
|-----------------------------------|------------|-----------|--------------------------------|------------|-----------|
| <b>A</b> Heart Condition(s)       | <b>YES</b> | <b>NO</b> | <b>I</b> Tuberculosis          | <b>YES</b> | <b>NO</b> |
| <b>B</b> Heart Surgery            | <b>YES</b> | <b>NO</b> | <b>J</b> Kidney/Renal Disease  | <b>YES</b> | <b>NO</b> |
| <b>C</b> Valve Replacement        | <b>YES</b> | <b>NO</b> | <b>K</b> Hepatitis/Jaundice    | <b>YES</b> | <b>NO</b> |
| <b>D</b> Stroke                   | <b>YES</b> | <b>NO</b> | <b>L</b> HIV Positive          | <b>YES</b> | <b>NO</b> |
| <b>E</b> High Blood Pressure      | <b>YES</b> | <b>NO</b> | <b>M</b> Epilepsy/Seizures     | <b>YES</b> | <b>NO</b> |
| <b>F</b> Bleeding Disorder(s)     | <b>YES</b> | <b>NO</b> | <b>N</b> Joint Replacement     | <b>YES</b> | <b>NO</b> |
| <b>G</b> Respiratory Condition(s) | <b>YES</b> | <b>NO</b> | <b>O</b> Liver/Hepatic Disease | <b>YES</b> | <b>NO</b> |
| <b>H</b> Diabetes                 | <b>YES</b> | <b>NO</b> | <b>P</b> Latex Allergy         | <b>YES</b> | <b>NO</b> |

Answer the following questions regarding your health:

- Do you have any known allergies or sensitivities (food, medications, dental material)? **YES** **NO**
- Are you taking any prescribed medications? **YES** **NO**
- Are you taking any Over the Counter (OTC) supplements or medications? **YES** **NO**
- Are you currently receiving or have you previously received intravenous bisphosphonate therapy? **YES** **NO**
- Within the last six months, have you been seen by, or are you currently under the care of a physician or health care provider? **YES** **NO**
- Have you experienced local anesthetic complications with dental treatment in the past? **YES** **NO**



CANDIDATE ID LABEL

**LOCAL ANESTHESIA INFORMATION SHEET**

Patient First Name: \_\_\_\_\_

- Initial Exam Attempt    
  Onsite Retake Exam Attempt  
 New Patient    
  Existing Patient

Anesthetic Type and Expiration Date: \_\_\_\_\_

INJECTION	INJECTION SITE		NEEDLE LENGTH	
	LEFT	RIGHT	LONG	SHORT
IA				
PSA				

Complete this section after evaluation; form remains at operatory.

Total amount of anesthetic administered (ml or mg): \_\_\_\_\_

Visit [ADEXtesting.org](http://ADEXtesting.org) to download full-size examination forms.

## CANDIDATE EXAMINATION OVERVIEW

Be onsite (approximately 30 minutes prior to your assigned clinic time)

### Clinic Entrance

- *Patient Medical History/Patient Consent* form completed (vitals taken one-hour or less prior to exam)
- *Local Anesthesia Information Sheet* completed
- Set up operator
- Prepare syringe(s) with chosen local anesthetic and needles

An examiner will instruct you when to escort your patient into the clinic.

### Clinical Examination Preparation

One examiner will check:

- Penetration sites are acceptable and landmark teeth are present
- Syringes are properly prepared
- *Local Anesthesia Information Sheet* is accurate
- *Medical History* and patient vitals reviewed

### Examiners will inform you when to:

- Apply topical
- Loosen needle cap(s)
- Proceed with Sharps Disposal
- Dismiss your patient

### After Sharps Disposal

- Record total volume (ml or mg) of local anesthetic on *Local Anesthesia Information Sheet* (form remains at operator)
- Clean and disinfect operator
- Return any unused *Candidate ID Label* to designated area



**LOCAL ANESTHESIA  
PATIENT MEDICAL HISTORY**

CANDIDATE ID LABEL

PATIENT FIRST NAME \_\_\_\_\_ DOB \_\_\_\_\_

**Do you have or have had any of the following? Response required. Circle all "YES" responses in RED.**

- |                            |     |    |                         |     |    |
|----------------------------|-----|----|-------------------------|-----|----|
| A Heart Condition(s)       | YES | NO | I Tuberculosis          | YES | NO |
| B Heart Surgery            | YES | NO | J Kidney/Renal Disease  | YES | NO |
| C Valve Replacement        | YES | NO | K Hepatitis/Jaundice    | YES | NO |
| D Stroke                   | YES | NO | L HIV Positive          | YES | NO |
| E High Blood Pressure      | YES | NO | M Epilepsy/Seizures     | YES | NO |
| F Bleeding Disorder(s)     | YES | NO | N Joint Replacement     | YES | NO |
| G Respiratory Condition(s) | YES | NO | O Liver/Hepatic Disease | YES | NO |
| H Diabetes                 | YES | NO | P Latex Allergy         | YES | NO |

**Answer the following questions regarding your health; explain any "yes" responses.**

1. Do you have any known allergies or sensitivities (food, medications, dental material)? YES NO  
 Comment: \_\_\_\_\_
2. Are you taking any prescribed medications? YES NO  
 Comment: \_\_\_\_\_
3. Are you taking any Over the Counter (OTC) supplements or medications? YES NO  
 Comment: \_\_\_\_\_
4. Are you currently receiving or have you previously received intravenous bisphosphonate therapy? YES NO  
 Comment: \_\_\_\_\_
5. Within the last six months, have you been seen by, or are you currently under the care of a physician or health care provider? YES NO  
 Comment: \_\_\_\_\_
6. Have you experienced local anesthetic complications with dental treatment in the past? YES NO  
 Comment: \_\_\_\_\_
7. Have you used any recreational drug(s) (cocaine or methamphetamines) within the last 24 hours? YES NO  
 Comment: \_\_\_\_\_
8. Do you have or have your been exposed to any condition (disease) not listed above? YES NO  
 Comment: \_\_\_\_\_
9. **Women:** Are you pregnant? YES NO  
 Expected due date (MM/DD/YY): \_\_\_\_\_

**CANDIDATE: State reason for any alteration in standard treatment. Attach verification of patient's medical clearance for anesthesia procedures or state reason for necessary antibiotic coverage.** \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Medical History Attestation:**  
 Patient Initials \_\_\_\_\_

**Medical History Reviewed:**  
 Chief Examiner Initials \_\_\_\_\_

Patient Blood Pressure	Pulse Rate	Time Taken	Chief Initials
1)			
2)			
3)			

## PATIENT CONSENT AND ASSUMPTION OF RISK

CDCA-WREB-CITA, a non-profit corporation is a national dental and dental hygiene testing agency required to test candidates' clinical skills for the states that accept the results of CDCA-WREB-CITA examinations. This involves doing certain types of dental procedures for volunteer patients.

The CDCA-WREB-CITA examinations are typically administered at various dental or dental hygiene schools and universities ("School" or "Schools") around the country. You have agreed to volunteer as a patient (the "Patient") for a candidate (the "Candidate") that is taking a CDCA-WREB-CITA examination. Other than administering an examination at a School, CDCA-WREB-CITA has no relationship or affiliation with any of the Schools.

The Candidate has met the educational requirements necessary to take the exam, but CDCA-WREB-CITA and the Schools have no knowledge regarding the Candidate's skill or competence. The Candidate who is treating you may not be licensed in any of the member states of CDCA-WREB-CITA. The Candidate will be performing a dental examination on you, including one or more procedures (collectively, the "Procedures") as a part of the examination to determine if the Candidate is qualified to be licensed as a dentist or dental hygienist in a CDCA-WREB-CITA state.

CDCA-WREB-CITA and the Schools do not assume any responsibility for the treatment or Procedures you receive from the Candidate. If an injury occurs during the examination, neither CDCA-WREB-CITA (including its examiners) nor the School (Including anyone acting on its behalf) assumes any responsibility to provide follow up dental treatment. CDCA-WREB-CITA and the Schools assume no responsibility for notifying you of any poor, substandard, or negligent work rendered by the Candidate. If you have any concerns regarding the quality of care administered by the Candidate, then you should see a licensed dentist.

By volunteering to be a patient for the Candidate during the CDCA-WREB-CITA examination, you expressly acknowledge and agree that you are not and will not become a patient of record of the School solely due to the treatment or Procedures that you receive from the CDCA-WREB-CITA Candidate during the examination. The School is merely a hosting site and is in no way responsible for supervising or overseeing the dental services provided by the CDCA-WREB-CITA Candidate during the examination.

**You hereby expressly agree to assume the risk for injuries of any kind that occur before, during, or after the CDCA-WREB-CITA examination. You agree to indemnify CDCA-WREB-CITA (including its examiners) and the School (including anyone acting on its behalf) against, and hold CDCA-WREB-CITA (including its examiners) and the School (including anyone acting on its behalf) harmless from any and all losses, claims, demands, damages, assessments, costs and expenses (including reasonable attorney's fees) of every kind, nature or description resulting from, arising out of or relating to your health care or condition before, during or after the examination.**

I, as the Patient, hereby state that I have read and understand this Patient Consent Form and Assumption of Risk. I confirm that I am 18 years of age or older, and consent to the procedure(s). I realize that local anesthetics may have to be administered and I consent to the use of local anesthetics by the Candidate. I understand that my medical history on the reverse side will be shared with examiners as required to determine eligibility for the exam and for reference in case of medical emergency.

**I, as the Patient, authorize Candidate ID # \_\_\_\_\_ to perform local anesthesia injections upon me.**

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

CANDIDATE ID LABEL

## LOCAL ANESTHESIA INJECTION INFORMATION SHEET

Patient First Name: \_\_\_\_\_

Initial Exam Attempt

Onsite Retake Exam Attempt

New Patient

Existing Patient

Anesthetic Type and Expiration Date: \_\_\_\_\_

INJECTION	INJECTION SITE		NEEDLE LENGTH	
IA	LEFT	RIGHT	LONG	SHORT
PSA	LEFT	RIGHT	LONG	SHORT

**Complete this section after evaluation; form remains at operatory.**

Total amount of anesthetic administered (ml or mg): \_\_\_\_\_