



**Dental Hygiene
Local Anesthesia Didactic
Examination
2023 CANDIDATE MANUAL**

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

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ADEXtesting.org

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DIDACTIC LOCAL ANESTHESIA EXAMINATION

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

Once your application has been processed, you will receive a notification via email that your *Eligibility Number* has been posted to your CDCA-WREB-CITA online profile. The *Eligibility Number* and first four characters of your last name are required to schedule your computer-based Didactic examination appointment with a Prometric Test Center location. Note that it may take 1-2 business days for Prometric systems to reflect your eligibility information.

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) pilot 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 on the Local Anesthesia Didactic examination. A 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.

The candidate's provisional results will be displayed on the Prometric computer screen upon completion of the examination. Official results are posted online and can be accessed through your candidate portal; candidate notified via email once posted.

Didactic Examination Retakes. Eligible candidates may apply online for a retake of the Local Anesthesia Didactic Examination via the CDCA-WREB-CITA website at ADEXtesting.org.

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 (2nd 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 examination, the following chart was referenced when constructing MRDs and local anesthetic 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)