Local Anesthesia Didactic Examination

2024 CANDIDATE MANUAL

CDCA WREB CITA

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

Version 2024

LOCAL ANESTHESIA DIDACTIC EXAMINATION

The purpose of the computer-based 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.

Candidate Guide. Refer to the CDCA-WREB-CITA [Candidate Guide](#) for information regarding exam eligibility, identification requirements, testing accommodations, candidate conduct/misconduct policies, and more.

Once your application has been processed, you will receive a notification via email that your *Eligibility Number* has been posted to your online candidate portal at [Candidates.ADEXtesting.org](#). 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.

Didactic Examination. 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 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.

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.

Didactic Examination Retakes. Eligible candidates may apply online for a retake of the Local Anesthesia Didactic Examination via their online candidate portal at [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 Guide](#) for more 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* (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% mepivicaine (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)