

PRACTICAL CLINICAL COURSES

*A Service of the Gordon J. Christensen
Career Development Program*

V3995

Local Anesthesia: Eliminating Misses and Near Misses

Mel Hawkins, DDS, BScD AN
Gordon J. Christensen, DDS, MSD, PhD

Materials Included:

C.E. Instruction Sheet
Products List
Clinicians Responsible
Goals & Objectives
Overview
Supplemental Materials
AGD Post-Test

Gordon J. Christensen
PRACTICAL CLINICAL COURSES

**PROCEDURE FOR RECEIVING
CE CREDIT FOR VIDEO COURSES**

1. Complete the enclosed Post-Test.* For each **CE Video Purchased**, one complimentary test is included. Additional tests are \$35/person per test. Fees can be paid by check or with a credit card when submitting tests to Practical Clinical Courses. If more than 10 CE tests are required per video, please contact us at 800-223-6569.
2. Complete the demographic information located at the end of the test.
Type of Credit:
 - a. If the applicant selects "State," PCC will issue a certificate of verification to the applicant. The applicant must then submit this certificate to their state board to obtain credit.
 - b. If the applicant selects "AGD," PCC will submit credit information to the Academy of General Dentistry. *The applicant may check their AGD transcript for verification – please allow 30 days.*
 - c. If the applicant selects "Both," PCC will complete a. & b. above.
3. Return the **Post-Test portion** via mail, fax, or email. Our contact information is as follows:

Practical Clinical Courses
3707 N Canyon Road
Suite 3D
Provo, UT 84604
Fax: (801) 226-8637
cetests@pccdental.com

4. Practical Clinical Courses will correct the Post-Test. **Passing scores are 70% or higher.**

****TO OBTAIN CE CREDIT ONLINE:*** Login or create an account on www.pccdental.com and select "My CE Tests" from the left-side menu. Click on the video title to take the test online. **RESULTS ARE IMMEDIATE.** Missing the test? Contact us at 800-223-6569 during our business hours of 7:00 a.m. – 3:00 p.m. Mountain Time to add it to your account.

Gordon J. Christensen
PRACTICAL CLINICAL COURSES
Sources of Products Discussed in

V3995 Local Anesthesia: Eliminating Misses and Near Misses

Presented by: Mel Hawkins, DDS, BScD AN & Gordon J. Christensen, DDS, MSD, PhD

- | | |
|--|--|
| 1. Articadent
Dentsply Sirona
13320-B Ballantyne Corporate Pl
Charlotte, NC 28277
(800)877-0020
www.dentsplysirona.com | 6. Orabloc by Pierrel
Dental Distributors |
| 2. Carbocaine by Septodont
Dental Distributors | 7. Scandonest by Septodont
Dental Distributors |
| 3. Kovanaze by St. Renatus
Local Pharmacy | 8. Septocaine by Septodont
Dental Distributors |
| 4. Molt Mouth Gag
Hu-Friedy Mfg. Co., LLC
3232 North Rockwell Street
Chicago, IL 60618
(800)483-7433
(773)975-6100
www.hufriedygroup.com | 9. Zorcaine by Septodont
Dental Distributors |
| 5. Molt Mouth Prop #907
Karl Schumacher Dental, LLC
1666 E. Touhy Avenue
Des Plaines, IL 60018
(800)523-2427
(215)322-0511
www.karlschumacher.com | |

Product names, the products themselves, and company names change rapidly. Please contact the companies shown to confirm current information.

Gordon J. Christensen Practical Clinical Courses, 3707 North Canyon Road, Suite 3D, Provo, UT 84604
Toll Free (800) 223-6569 or Utah Residents (801) 226-6569

The techniques and procedures on this videotape are intended to be suggestions only. Any licensed practitioner viewing this presentation must make his or her own professional decisions about specific treatment for patients. PCC is not responsible for any damages or other liabilities (including attorney's fees) resulting, or claimed to result in whole or in part, from actual or alleged problems arising out of the use of this presentation.

PROGRAM

V3995 Local Anesthesia: Eliminating Misses and Near Misses

CLINICIANS RESPONSIBLE:

Mel Hawkins, DDS, BScD AN

Founding Director, Intravenous Sedation Continuing
Education Program at the University of Alberta

Founding Director, Intravenous Sedation Program
at the University of Toronto

Private Practitioner (over 30 years), with special emphasis
on pain control and pain management

Gordon J. Christensen, DDS, MSD, PhD

Founder and CEO, Practical Clinical Courses
Senior Consultant & Previous CEO, CR Foundation
Practicing Prosthodontist, Provo, Utah

GOALS & OBJECTIVES

At the completion of this video presentation, viewers should be able to:

1. Discuss the prevalence of need for local anesthesia in dentistry.
2. Estimate the number of local anesthetic injections a dentist would do in one day.
3. Discuss the need to know oral/head and neck anatomy to have local anesthesia success.
4. Discuss the gauge of needles recommended for local anesthetic delivery.
5. Discuss purposely bending of needles.
6. Discuss important anatomical landmarks essential for adequate anesthesia of the inferior alveolar nerve.
7. Describe the lingula and its relationship to the inferior alveolar nerve.
8. Describe positioning of the syringe when doing an inferior alveolar nerve block.
9. Discuss where to inject for infiltration anesthesia of the mandibular first molar.
10. Describe the location of an injection for the long buccal nerve.
11. Describe the Gow-Gates injection.
12. Describe the influence of adipose cells in the site of the Gow-Gates injection.
13. List the most common reasons for failure blocking the inferior alveolar nerve.
14. Compare articaine with lidocaine.
15. Compare the concentration of articaine with lidocaine.
16. List five tips to assist in ensuring the success of an inferior alveolar nerve block.
17. Discuss the necessity of alternative local anesthesia techniques.
18. Discuss the alleged neurotoxicity of articaine.
19. Describe the recommended injections to anesthetize the entire mandibular dentition.
20. Discuss potential future changes in need for local anesthesia in dentistry.

OVERVIEW

V3995 Local Anesthesia: Eliminating Misses and Near Misses

The following are discussed in this presentation:

- The prevalence of need for local anesthesia in dentistry
- The number of local anesthetic injections a dentist would do in one day
- The need to know oral/head and neck anatomy to have local anesthesia success
- The gauge of needles recommended for local anesthetic delivery
- Bending of needles
- Important anatomical landmarks essential for adequate anesthesia of the inferior alveolar nerve
- The lingula and its relationship to the inferior alveolar nerve
- Positioning of the syringe when doing an inferior alveolar nerve block
- Where to inject for infiltration anesthesia of the mandibular first molar
- The location of an injection for the long buccal nerve
- The Gow-Gates injection
- Influence of adipose cells in the site of the Gow-Gates injection
- The most common reasons for failure blocking the inferior alveolar nerve
- Articaine vs. lidocaine
- A comparison of the concentration of articaine with lidocaine
- Tips to assist in ensuring the success of an inferior alveolar nerve block
- The necessity of alternative local anesthesia techniques
- The alleged neurotoxicity of articaine
- Recommended injections to anesthetize the entire mandibular dentition
- Potential future changes in need for local anesthesia in dentistry

SUPPLEMENTAL MATERIALS

V3995 Local Anesthesia: Eliminating Misses and Near Misses

1. Bataineh AB, Nusair YM, Al-Rahahleh RQ. Comparative study of articaine and lidocaine without palatal injection for maxillary teeth extraction. Clin Oral Investig. 2019 Aug;23(8):3239-3248. doi: 10.1007/s00784-018-2738-x. Epub 2018 Nov 12.
2. M M A, Khatri A, Kalra N, Tyagi R, Khandelwal D. Pain perception and efficacy of local analgesia using 2% lignocaine, buffered lignocaine, and 4% articaine in pediatric dental procedures. J Dent Anesth Pain Med. 2019 Apr;19(2):101-109. doi: 10.17245/jdapm.2019.19.2.101. Epub 2019 Apr 30.
3. Majid OW, Muhammad ZA. Effectiveness of Articaine Buccal Infiltration Anesthesia for Mandibular Premolar Extraction: A Randomized, Double-Blind, Placebo-Controlled Clinical Trial. J Oral Maxillofac Surg. 2019 Mar 30. pii: S0278-2391(19)30359-3. doi: 10.1016/j.joms.2019.03.033. [Epub ahead of print]
4. Aggarwal V, Singla M, Miglani S, Kohli S. Efficacy of Articaine Versus Lidocaine Administered as Supplementary Intraligamentary Injection after a Failed Inferior Alveolar Nerve Block: A Randomized Double-blind Study. J Endod. 2019 Jan;45(1):1-5. doi: 10.1016/j.joen.2018.09.012. Epub 2018 Dec 6.
5. Kim C, Hwang KG, Park CJ. Local anesthesia for mandibular third molar extraction. J Dent Anesth Pain Med. 2018 Oct;18(5):287-294. doi: 10.17245/jdapm.2018.18.5.287. Epub 2018 Oct 31.
6. Gazal G. Is Articaine More Potent than Mepivacaine for Use in Oral Surgery? J Oral Maxillofac Res. 2018 Sep 30;9(3):e5. doi: 10.5037/jomr.2018.9305. eCollection 2018 Jul-Sep.
7. Albalawi F, Lim JC, DiRenzo KV, Hersh EV, Mitchell CH. Effects of Lidocaine and Articaine on Neuronal Survival and Recovery. Anesth Prog. 2018 Summer;65(2):82-88. doi: 10.2344/anpr-65-02-02.
8. Hawkins J Mel, Moore Paul A. Local Anesthesia: Advances in Agents and Techniques. Dental Clinics of North America. 2002 Oct;46(4):719-732.
9. Hawkins, J Mel; Meechan, G John. (2002). Local Anesthetic Techniques and Adjuncts. In *Management of Pain and Anxiety in the Dental Office* (pp. 178-203). Philadelphia, PA: W.B. Saunders.

POST-TEST

V3995 Local Anesthesia: Eliminating Misses and Near Misses

1. Reason(s) for failure of local anesthesia in dentistry include(s):
 - a. clinician unfamiliarity with hard-tissue anatomy.
 - b. clinician unfamiliarity with soft-tissue anatomy.
 - c. neurovascular anomalies.
 - d. all of the above.
2. The coronoid notch:
 - a. has no anatomical significance to syringe guidance.
 - b. is the greatest indentation depth on the anterior border of the ramus.
 - c. is on the distal aspect of the ramus of the mandible.
 - d. none of the above.
3. Disadvantage(s) of the **conventional** inferior alveolar block include(s):
 - a. increased vascularity in the area.
 - b. anatomical variance.
 - c. macroglossia.
 - d. all of the above.
4. The Gow-Gates mandibular block:
 - a. is more difficult than the conventional inferior alveolar nerve block.
 - b. requires needle insertion slightly higher than the inferior alveolar nerve block.
 - c. requires needle insertion slightly lower than the inferior alveolar nerve block.
 - d. has faster onset than the inferior alveolar nerve block.
5. The long buccal injection:
 - a. provides anesthesia for the molars and premolars on the injected side.
 - b. provides anesthesia for molars, premolars, and anteriors on the injected side.
 - c. provides minimal anesthesia for the teeth.
 - d. none of the above.
6. Most dentists have the following number of injections for adequate anesthesia for the inferior alveolar nerve block:
 - a. 1
 - b. 2
 - c. 3
 - d. 4
7. Disadvantage(s) of the Gow-Gates injections include(s):
 - a. mouth must be **wide open**.
 - b. extraoral landmarks are missing.
 - c. post-injection, must **stay open 2 minutes**.
 - d. all of the above.

POST-TEST (CONT'D)

V3995 Local Anesthesia: Eliminating Misses and Near Misses

8. Articaine:
- a. has more potential for producing paresthesia than lidocaine.
 - b. has less potential for producing paresthesia than lidocaine.
 - c. has the same potential for producing paresthesia than lidocaine.
 - d. never produces paresthesia.
9. Articaine:
- a. is used less than lidocaine in USA dentistry.
 - b. is more toxic than lidocaine.
 - c. has slower onset than lidocaine.
 - d. is used more than lidocaine in USA dentistry.
10. Articaine:
- a. has been available in Germany and France since 1976.
 - b. has ~90% of the market, in Canada since 1983.
 - c. has been in the United States since 2000.
 - d. all of the above.

PLEASE PRINT

Name _____

Name of video purchaser (if different from above) _____

Address _____

City/State/Zip _____

Phone No. _____

Email _____

Indicate which type of credit you wish to obtain: ☐ AGD ☐ State ☐ Both

State License No. _____ AGD No. _____

Payment information ☐ Visa ☐ American Express ☐ Mastercard ☐ Discover

Card # ____ - ____ - ____ - ____ Expires ____ / ____ CVV2-Code: _____

For each **CE Video Purchased**, one complimentary test is included. If you require CE tests for *staff members or additional doctors to receive credit*, the fee is \$35/person per test.

If more than 10 CE tests are required per video, please contact PCC at 800-223-6569.