



Edward M. Carden

Fellow of the Royal College of Physicians of Canada  
Fellow of the American College of Anesthesiologist  
Diplomate, American Academy of Pain Management

## **CURRICULUM VITAE**

### **EDUCATION**

High School: Manchester Grammar School  
University: Cambridge England/M.A. 1961  
Medical School: Cambridge University England/M B: B. Chir: 1964

### **INTERNSHIP**

Whipps Cross Hospital Leytonstone, England  
House Surgeon September 1964 - March 1965

Plaistow Hospital London, England  
House Physician April 1965 - September 1965

Wadsworth VA Hospital, Los Angeles, California  
March 1974 - March 1975

### **RESIDENCY**

St. Bartholomew's Hospital  
Senior House Officer September 1, 1965 - September 1966

University of British Columbia Vancouver, Canada  
January 1, 1968 - June 1969  
July 1, 1970 - December 31, 1970

### **FELLOWSHIP**

Hyperbaric Research Fellow, University of British Columbia  
July 1, 1969 - June 30, 1970

### **LECTURES**

310.574.0400 phone · 310.574.0401 fax · 866.481.DISC toll free  
13160 Mindanao Way, Suite 300 · Marina del Rey, CA 90292  
[www.discmdgroup.com](http://www.discmdgroup.com)

D.I.S.C. Sports and Spine Center

Too numerous to list but of note:

American Society of Anesthesiology Refresher Course on Ventilators San Francisco  
1974

Anesthesia for Microlaryngeal Surgery delivered to the Australian Society of  
Anesthesiology in Adelaide 1972

Positive Pressure Ventilation with the Magill Circuit Delivered to the British Anesthesia  
Research Society in Nottingham 1984

Testified Before the California State senate regarding Reflex Sympathetic Dystrophy  
.June 2004.

### **ACADEMIC APPOINTMENTS**

Assistant Professor - University of North Carolina 1971 - 1974

Associate Clinical Professor - University of California Los Angeles, Westwood,  
California 1974 - 1985

Associate Clinical Professor - University Southern California, Los Angeles, California  
1992 - 1996

Clinical Professor - University of Southern California, Los Angeles, California  
1996 - Present

### **ANESTHESIA RELATED INVENTIONS**

The Micro-Vent Ventilator

The Carden Laryngoscopy Tube

The Carden Bronchoscopy Tube

The Carden CPAP Device

The Engstrom Carden Ventilator

The Carden Laser Laryngoscopy Tube

The Chin-Up

## **SOCIETY MEMBERSHIPS**

American Society for Orthopedic Medicine  
American Society of Anesthesiologists  
International Anesthesia Research Society  
American Pain Society  
International Society for Injection of the Spine  
International Association for the Study of Pain  
North American Cervicogenic Headache Society  
American Society of Interventional Pain Physicians

## **HIGHER QUALIFICATIONS AND DEGREES**

MA: MB: B Chir: 1964

Licentiate of the Royal College of Physicians of the United Kingdom 1965

Diploma of Anesthetics Faculty of Anesthetists Royal College of Surgeons of England  
January 1967

Educational Council for Foreign Medical Graduates  
October 1966

L M C C (M.D.) (Canada) 1969

Fellow of the Royal College of Physicians of Canada 1971

Fellow of the American College of Anesthesiologist 1972

FLEX (M.D.) 1973

SPEX 1993

Diplomate American Academy of Pain Management 1993

## **LICENCES**

United Kingdom 1965

British Columbia 1969

District of Columbia 1973

California 1975 A 26774

Nevada 1985

Washington 1993

Oregon 1994

## **AWARDS**

1971	Second British Oxygen Corporation Prize in the Residents Competition of the Canadian Anesthetic Society 1971
1970	C.A.S. Resident's Competition 2nd Prize
1973	Academy of Pediatrics Scientific Exhibit 3rd Prize
1974	A.S.A. Meeting Gadget Fair 1st Prize

## **LICENSING EXAMINATIONS**

1965	E.C.F.M.G.
1970	L.M.C.C.
1973	F.L.E.X.
1994	S.P.E.X.

**BNDD** AC 661 8497

PUBLICATIONS ATTACHED.

## **PUBLICATIONS**

1. Carden, E: A Tube Supporting "Fork." Can. Anaesth. Soc. J. 15: 505-6. 1968.
2. Carden, E: The Microvent Ventilator. Anaesthesia 24: 90-3. 1969.
3. Carden, E: A Ventilation System for an Intensive Care Unit. Can. Anaesth. Soc. J. 16:433-36. 1969.
4. Carden, E: A Simple Portable Ventilator for Emergency Re-Suscitation. Anesthesiology 32:269-73. 1970.
5. Carden, E; Bernstein, M: Investigation of the Nine Most Commonly Used Resuscitator Bags. JAMA 212:589-92. 1970
6. Carden, E: Hyperbaric Oxygen in Cyanide Poisoning. Anaesthesia 25:442-43. 1970.
7. Carden, E: A New Pressure Relief (Safety) Valve, A Special Unit Designed for Miniature Ventilators. Anaesthesia 25:411-17. 1970.

8. Carden, E; Doll, W: A Doppler Flow Meter for Detecting Air and Other Emboli, Incorporating a Simple Method of Screening Against Interference. *Anesthesiology* 33:551-52. 1970.
9. Carden, E; Trapp, WG; Oulton, J: A New and Simple Method for Ventilating Patients Undergoing Bronchoscopy. *Anesthesiology* 33:454-58. 1970.
10. Carden, E: Oxygenation During Chest Surgery in the Right Lateral Position in Dogs. *Can. Anaesth. Soc. J.* 18:110-15. 1971.
11. Carden, E: A New Pediatric Ventilator. *Can. Anaesth. Soc. J.* 18:215-24. 1971.
12. Carden, E: A Modification to Increase the Versatility and Safety of the Manley Ventilator. *Can. Anaesth. Soc. J.* 18:675-80. 1971.
13. Carden, E; Nelson, D: A New and Highly Efficient Circuit for Pediatric Anesthesia. *Can. Anaesth. Soc. J.* 19:572-82. 1972.
14. Carden, E: Positive Pressure Ventilation During Anesthesia for Bronchoscopy, a Laboratory Evaluation of Two Recent Advances. *Anesth. Analg. (Cleve)* 52:402-6. 1973.
15. Carden, E: Letter, Ventilation With an Oxygen Injector for Suspension Laryngoscopy Under General Anesthesia. *Anesth. Analg. (Cleve)* 52:221. 1973.
16. Carden, E; Crutchfield, W: Anesthesia for Microsurgery of the Larynx (A New Method). *Can. Anaesth. Soc. J.* 20:378-89. 1973.
17. Carden, E: A Modification for the Magill Circuit. *Can. Anaesth. Soc. J.* 20:575-77. 1973.
18. Carden, E; Burns, WW; McDevitt, NB; Carson, T: A Comparison of Venturi and side Arm Ventilation in Anesthesia for Bronchoscopy. *Can. Anaesth. Soc. J.* 20:569-74. 1973.
19. Carden, E; Schwesinger, WB: Further Advances in Bronchoscopic Anesthesia. *Anesthesiology* 39:551-55. 1973.
20. Carden, E: Oxygenation During Chest Surgery in Dogs. *Anaesth. Intensive Care* 1:248. 1973.
21. Carden, E: A New Technique of Ventilation During Laryngeal Surgery. *Anaesth. Intensive Care* 1: 251. 1973.
22. Carden, E; Ferguson, G: A New Technique for Microlaryngeal Surgery in Infants/ laryngoscope 83:691-99. 1973.

23. Carden, E; Levin, K; Steinbach, RB: A New Simple Device for Delivering CPPB in Infants. *Can Anaesth. Soc. J.* 21:110-13. 1974.
24. Carden, E: Book Review. *Anesthesiology* 39:665-66. 1973.
25. Carden, E: A Rational Choice of Ventilators. A.S.A. Re-fresher Course Lecture No. 212. 1973.
26. Carden, E; Levin, K; Fisk, G; Vidyasagar, D: A New method of Providing Continuous Positive Pressure Breathing in Infants. *Pediatrics.* 53:757-69. 1974.
27. Carden, E; Ferguson, G; Crutchfield, W: A New Silicone Elastomer Tube for Use During Microsurgery of the Larynx. *Ann. Otol. Rhinol. Laryngol.* 83:360-65. 1974.
28. Carden, E; West, HR: Further Advances in Anesthetic Techniques for Microlaryngeal Surgery. *Anesth. Analg. (Cleve)* 53:584-87. 1974.
29. Carden, E; Levin, K: A New Simple Device for obtaining CPPB in Infants Suffering from Respiratory Distress Syndrome. *Anesthesiology Review* 1:24-6. 1974.
30. Carden, E: Letter, The Doppler Flow Meter and the Prevention of Interference. *Anesth. Analg. (Cleve)* 53:973-4. 1974.
31. Carden, E: Letter to the Editor. *Anaesth. Intensive Care* 2:189. 1974.
32. Carden, E: Recent Advances in Anesthesia for Bronchoscopy. *Ann. Otol. Rhinol. Laryngol.* 83:777-85. 1974.
33. Carden, E; Hughes, T: Evaluation of Manually Operated Self-Inflating Resuscitation Bags. *Anesth. Analg. (Cleve)* 54:133-38. 1975.
34. Carden, E: Letter, The Carden Tube. *Anesth. Analg. (Cleve)* 54:345-46. 1975.
35. Carden, E; Steinbach, RB: 1973 Assessment of Eight Adult Resuscitator Bags. *Respiratory Care* 20:69-76. 1975.
36. Carden, E: Recent Improvements in Anesthetic Techniques for Use During Bronchoscopy. *Trans. Am. Broncho-Esophagological Assoc.* 166-74. 1974.
37. Carden, E; Galido, J: Foot Pedal Control for Jet Ventilation During Bronchoscopic and Microlaryngeal Anesthesia. *Anesth. Analg. (Cleve)* 54:405-6. 1975.

38. Carden, E; Raj, PP: Special New Low Resistance to Flow Tube and Endotracheal Tube Adapter for Use during Fiberoptic Bronchoscopy. *Ann. Otol. Rhinol. Laryngol.* 84:631-34. 1975.
39. Carden, E; Raj, PP: Special New Low Resistance to Flow Tube and Endotracheal Tube Adapter for Use during Fiberoptic Bronchoscopy. *Trans. Am. Broncho-Esophagological Assoc.* 131-34. 1975.
40. Carden, E; Ferguson, GB: Large Tracheal Papillomas; A Difficult Anesthetic Problem and an Apparent Cure, A Case Report. *Ann. Otol. Rhinol. Laryngol.* 84:233-37. 1975.
41. Carden, E; Browder, P; Fischer, N: Teflon Injection of the Vocal Cords Under General Anesthesia, A New Method. *Anesth. Analg. (Cleve)* 54:739-41. 1975.
42. Carden, E: Letter, Anesthesia for Microsurgery of the Larynx. *Anaesth. Intensive Care* 3: 267-68. 1975.
43. Carden, E; Lechtman, A; Calcaterra, TW: Pneumatocoele of the Larynx. A Complication of Percutaneous Transtracheal Ventilation. *Anesth. Analg. (Cleve)* 55:600-01. 1976.
44. Carden, E; Raj, PP: Letter, Fiberoptic Bronchoscopy. *Br. J. Anaesth.* 46:502. 1976.
45. Carden, E; Hamood, H; Becker, G: Percutaneous Jet Ventilation *Ann. Otol. Rhinol. Laryngol.* 85:652-55. 1976.
46. Carden, E; Hamod, H; Becker, G: Percutaneous Jet Ventilation. *Trans. Of 1976 Broncho-Esophagological Soc.*
47. Carden, E; Friedman, D: Further Studies of Manually Operated Self-Inflating Resuscitation Bags. *Anesth. Analg. (Cleve)* 56:202-06. 1977.
48. Carden, E; Becker, G; Hamood, H: An Improved Percutaneous Jetting System for Use During Microlaryngeal Operations. *Can. Anaesth. Soc. J.* 24:118-25. 1977.
49. Carden, E; Raj, PP; Rosenblatt, R; Miller, J; Katz, RL: Dynamics of Local Anesthetic Compounds in Regional Anesthesia. *Anesth. Analg. (Cleve)* 56:110-17. 1977.
50. Carden, E: Recent Improvements in Techniques for General Anesthesia for Bronchoscopy. *Chest* 73:697-700. 1978.

51. Carden, E; Bridges, BB; Takacs, FA: Introduction of Central Venous Pressure Catheters Through Arm Veins With a High Success Rate. *Can. Anesth. Soc. J.* 26:128-31. 1979.
52. Carden, E: Letter, Carden Tube. *Can. Anesth. Soc. J.* 27:512. 1980.
53. Carden, E; Fletcher, IR; Healy, TEJ; Poole, TR: The MIE Carden Ventilator, A Description and Laboratory Assessment. *Anaesthesia.* 38:1082-89. 1983.
54. Carden, E: chapter 9 (Anesthesia). *Alexander's Care of the Patient in Surgery.* 7<sup>th</sup> Edition. C.V. Mosby Co. 1983: pp. 131-39.
55. Carden, E; Jetton, J; McCarthy, et al: A Malleable Copper Tube With a Jetting System for Laser Surgery to the Vocal Cords. *Trans. Of Amer. Broncho-Esoph Ass.* 131-133. 1984.
56. Carden, E; Healey, T: Positive Pressure Ventilation with a Magill Circuit *Trans. Of Meeting Anesth Soc. Of G. B. & I.* 1981.
57. Hungerford, Dorr; Carden, E, et al: *Journal of Video Orthopedics.* Vol 9, No. 4, August 1994.
58. Carden, E; Aranda, M: The Chin Up. *Anes. Anal.* 82:462-39. 1996.
59. Matias, E; Carden, E; Steen: This Effect of  $\text{NAHCO}_3$  on the Diffusion of Lidocaine Through the Wall of the Endotracheal Tube Cuffs. *Proceedings of 24<sup>th</sup> Central European Congress of Anesthesiology.* 1995.
60. Matias, E; Steen, S; Carden, E: The Diffusion of Local Anesthetics Through Endotracheal Tube Cuffs *Proceedings of 23<sup>rd</sup> Congress of Scandinavian Society of Anesthesiologists.* 1995.
61. Stefco, JM; Jobe, FW; Van-Wilde, R; Carden, E; Pink, M: Electro Myo Graphic Analysis of the Subscapularis Lift Off Test. *Proceedings fo International Congress of Shoulder Surgery 1995.* July..
62. Carden E. Ori A . A New Test for Upper Extremity C R P S 1. *Pain Digest* In preparation.
63. Carden E Ori A.. Applied Cervical Spine Anatomy to Interscalene Brachial plexus Blocks . *Pain Physician.* 2005;8;357-361
64. The Bidigital compression test for confirming epidural placement Submitted . *Pain Physician.* Carden E Ori A.

65. A modified technique for performing interscalene blocks. In press. Pain Physician . Carden E Ori A. Pain Physician.2006;9:15-157-158.
66. Carden E. Positive Options for Reflex Sympathetic Dystrophy ( RSD).2004 Hunter House 2004: 67-83( chapter 4) and The Foreward.
67. Reflex Sympathetic Dystrophy for Orthopaedists. Forgrace Website at www. Forgrace .org Carden E 2002
68. Complication with the use of a #22 Touhy needle Carden E Ori A Submitted Pain Physician
69. Carden E.,Ori A. The BIP Test: A modified loss of resistance technique for confirming epidural needle placement. Pain Physician 2006.
70. Carden E., Horrigan Joseph. Intrapatellar Neuropathy Mimicking a symptomatic Medical Meniscus Tear: A Case Study.