

CURRICULUM VITAE

Fred C. Quarnstrom, D.D.S.,
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Place and date of birth: Yakima, WA - October 12, 1940

Pre Doctoral Education:

Sunnyside Grade School, Sunnyside, WA
Sunnyside High School, Sunnyside, WA
University of Washington, College of Arts and Sciences, 1958-1959
University of Washington, Dental School, 1960-1964

Post Doctoral Education:

Residency in General Anesthesia, Washington Hospital Center, 110 Irving St., Washington D.C.
Summer Institute on Clinical Dental Research Methods, Department of Dental Public Health Sciences, School of Dentistry, University of Washington, July-August 1992
Periodontal study club 1983 - 1985 210 hours
TMJ Dysfunction study club 1986 - 40 hours
Mini Endodontics Residency 1994 - 64 hours
Dental Material Study Club 1990 to present 20 hours a year
Continuing Dental Education courses attended - 2500 hours 1980 to 2006

Licensed to practice: State of Washington

Member of:

American Dental Association, Seattle-King County Dental Society, Washington State Dental Association, Delta Sigma Delta, American Dental Society of Anesthesiology, Academy of General Dentistry, International College of Dentistry, American Society of Dental Anesthesiologists, American Association of Dental Consultants, American college of Dentistry

Fellowships - Diplomate - Certification

Fellow in General Anesthesia, American Dental Society of Anesthesiology, 1980
Fellow, Academy of General Dentistry, 1984
Fellow, International College of Dentistry, 1989
Diplomate, American Dental Board of Anesthesiology, 1996
Certified Dental Consultant, American Association of Dental Consultants 1999
Diplomate National Dental Board of Anesthesiology 2002
Fellow, American College of Dentistry, 2005

Honors:

Eagle Scout 1953
Dean's List, University of Washington, 1 quarter, 1958
Dean's List, University of Washington, 3 quarters, 1959
One of top 20 sophomores, University of Washington, 1959-1960
Member, Washington State Board of Health, 1978-1979
Dentist Recognition Award, American Dental Association, 1987
Continuing Education Award for Anesthesia in Dentistry, American Dental Society of Anesthesiology 1984-1986
Nominee 1999, Mayor's Small Business Award one of 100 nominees for the City of Seattle
Member Washington State Dental Quality Assurance Commission / licensing and discipline Board 2004 – present

Community Service

Founder YMCA Indian Guide program SE Seattle
Cub Scoutmaster, Assistant Scoutmaster, Japanese Baptist Church Troop 53
District Chairman Thunderbird District Boy Scouts
Candidate Washington State House of Representatives 37th district 1998

Family

Married 32 years, 3 grown children, 2 grandchildren

Professional Experience:

U. S. Navy 1964-1966
Assistant Dental Officer, 3rd Marine Division, Camp Pendleton, California
The Dental Officer, U. S. Naval Mobile Construction Battalion Ten, Port Hueneme, California, Chu Lai, South Vietnam, Okinawa
1st Year Medical Resident in Anesthesia, 1966-1967, Washington Hospital Center, Washington D.C.
Private Practice of Dentistry, 1967 - Present
Clinical Assistant, University of Oregon, Department of Oral Surgery, 1972-1979
Lecturer, University of Oregon, Department of Continuing Dental Education, 1972-present
Lecturer, University of Washington, Department of Continuing Dental Education, 1978-present
Lecturer, University of British Columbia, Department of Continuing Dental Education, 1983-present
Evaluator, Clinical Research Associates, 1978-present
Clinical instructor, University of Washington, Department of Periodontics, 1983-1985
Affiliate Assistant Professor, Department of Dental Public Health Sciences, School of Dentistry, University of Washington 1990-present
Dental Director, Pro West now Qualis 1994- present
Dental Director- President, Second Dental Opinion.com 2000- present
Dental Consultant, Zenith Administrators, 1994- present
Dental Consultant, Epic, 1994- 1999
Clinical instructor, Dental Ethics, Department of Dental Public Health Sciences, School of Dentistry, University of Washington 1995-present
Clinical Assistant Professor, Faculty of Dentistry, School of Dentistry, University of British Columbia Canada 1995-present
Head Start Reviewer and Consultant 1996 - 1998
Dental Consultant, Washington Employers Trust, 1997- present
Advisory Committee, Seattle Vocational Institute Dental Assisting Program 1998- present
Consultant to ADA on N2O trace contaminants. 1998
American Dental Association Representative to National Fire Protection Association 1999-2004
Pacific Islands Clinical Continuing Education Program University of Washington Department of Family medicine team to Pago Pago, American Samoa May 2 – 20 2002
American Dental Association Representative committee H Anesthesia guidelines 2002,-2003
Pacific Islands Clinical Continuing Education Program University of Washington and Pacific Basin Dental Association Palau Sept 2 – 5 2003
Washington State Dental Quality Assurance Commission 2004- present
Seattle Central Community College Dental Hygiene advisory Board 2003 - present

Positions held:

President and Program Chairman, Northwest Dental Analgesia Seminar
President, Greater Seattle Practice Administration Seminar, 1972
Assistant Editor, Seattle-King County Dental Journal, 1971
Washington State Dental House of Delegates, 1977-1979
Member, Washington State Board of Health, 1978-1979
Member, Subcommittee - anesthesia regulations - of the State Dental Disciplinary Board, 1989
Research and Essay Award Committee, American Dental Society of Anesthesiology, 1993 - 99
Chairman 1995
Reviewer, The Journal of the American Dental Association, 1995
Reviewer, Dental Study Club Journal of Continuing Education, 1995- 1998
Reviewer, California Dental Institute for Continuing Education, 1996 - 1998
Reviewer, Journal Quintessence, 1997 - present
Reviewer, The Annals of Pharmacotherapy, 1997-2002
Washington State Dental House of Delegates, 1997-1999, 2000-2002
Alternate Delegate AGD national meeting from State of Washington 1999

Board, Washington AGD 1999-2003

American Dental Association Representative to National Fire Protection Association 1999-2004

American Dental Association Representative committee H Anesthesia guidelines 2002-2004

Washington State Dental Quality Assurance Commission 2004- present

Avocations

Candidate, Washington State House of Representatives, district 37, position 1 1998

Boy Scouts - Cub Master Pack 53, Japanese Baptist Church 1 year

Assistant Scoutmaster Troop 53, Japanese Baptist Church 6 years

Thunderbird District, Camping Chairman 1 year, Roundtable Chairman 2 years, District Chairman 1 year

Flying - ratings single engine land, commercial, instrument, and Instrument Flight Instructor and glider 1963-1980
reactivated license 2004

Boating - sailing and power

Woodworking - particularly bowl making

Amateur Astronomy - including telescope making - award for the best first scope Table Mountain Star Party 1995

Table clinics and Poster Presentations:

Nitrous oxide equipment, Oregon State Dental Association Meeting, 1975

Where are the patients? Academy of General Dentistry National Meeting, Toronto Canada, 1978

Electronic Dental Anesthesia, Washington State Dental Association Meeting, May 16, 1987

Electronic Dental Anesthesia, American Dental Association National Meeting, Honolulu Hawaii, Nov. 4, 1989

Electronic Dental Anesthesia, Chicago Dental Society Midwinter Meeting, Feb. 19, 1991

Halcion Oral Sedation, Chicago Dental Society Midwinter Meeting, Feb. 19, 1991

Halcion Oral Sedation, 6th International Congress on Modern Dental Pain control, Washington D.C., May 12, 1991

Halcion Oral Sedation, American Dental Association meeting, Seattle, WA, Oct. 5, 1991

Electronic Dental Anesthesia, American Dental Association meeting, Seattle, WA, Oct. 5, 1991

Electronic Dental Anesthesia, Chicago Dental Society Midwinter Meeting, Feb. 19, 1993

Halcion Oral Sedation, Chicago Dental Society Midwinter Meeting, Feb. 19, 1993

Electronic Dental Anesthesia - Waveform comparison, Chicago Dental Society Midwinter Meeting, Feb. 20, 1993

Electronic Anesthesia vs. Topical Anesthesia for Pain Control During Local Anesthesia Injections: Should We
Shock 'em Before We Block 'em? University of Washington Research Celebration Day May 12, 1993

Halcion Oral Sedation, Chicago Dental Society Midwinter Meeting, Feb. 19, 1994

Elect. Dent. Anes. - Waveform comparison, Chicago Dental Society Midwinter Meeting, Feb. 19, 1994

Elect. Dent. Anes. to replace topical anes, Chicago Dental Society Midwinter Meeting, Feb. 20, 1994

Nitrous Oxide Sedation Scavenging, Chicago Dental Society Midwinter Meeting, Feb. 20, 1994

Elect. Dent. Anes. to replace topical anes, Amer. Dent. Association national meeting Los Vegas, Oct 7, 1995

Nitrous Oxide, is it safe for our staff. Amer. Dent Assoc. National Meeting San Francisco, Oct 23, 1998

Nitrous Oxide, is it safe for our staff. Amer. Dent Assoc. National Meeting San Francisco, Oct 24, 1998

SaO₂ vs. altitude, Int. Federation Dental Anesthesiology Societies, Dundee Scotland, June 6, 2002

Papers read at meetings:

A Premix of 50% Nitrous Oxide - 50% Oxygen for Sedation During Dental Procedures, *Symposium of the 3rd International Congress on Dental Pain*, Tokyo Japan

Use of Electrical Anesthesia and Nitrous Oxide To Replace Local Anesthesia on 800 Patients, A Clinical Study,
Symposium of the 5th International Congress on Dental Pain, Canberra Australia, May 1988,

Three Years Use of Electronic Anesthesia, 4th Annual Symposium on Electronic Dental Anesthesia, University of
Southern California Dental School, Los Angeles CA, Jan. 26, 1990

Oral Triazolam Used in Dentistry: A Preliminary Clinical Report, 37th Annual meeting of the American Dental
Society of Anesthesiology, Orlando, FL, May 5, 1990

Diffusion Hypoxia: A Reappraisal using Pulse Oximetry on Patients Sedated with Nitrous Oxide, 37th Annual
meeting of the American Dental Society of Anesthesiology, Orlando, FL, May 5, 1990

Electrical Anesthesia Equipment, 37th Annual meeting of the American Dental Society of Anesthesiology, Orlando,
FL, May 5, 1990

Pharmacology of Halcion, Washington State Society of Pediatric Dentistry, Seattle, WA, October 5, 1990

Electronic Dental Anesthesia, 6th International Congress on Dental Pain, Washington, D.C., May 1991

Electronic Anesthesia vs. Topical Anesthesia for Pain Control During Local Anesthesia Injections, 41st Annual
meeting of the American Dental Society of Anesthesiology, Boston, MA, April 15, 1994

Nitrous oxide sedation 8th International Congress on Dental Pain, International Federation of Dental
Anesthesiology Societies, Christchurch NZ March 26, 1997

The Dental professional and Internet 8th International Congress on Dental Pain, International Federation of Dental Anesthesiology Societies, Christchurch NZ March 28, 1997
Electronic Dental Anesthesia and Intraosseous local anesthesia, 8th International Congress on Dental Pain, International Federation of Dental Anesthesiology Societies, Christchurch NZ March 28, 1997
Oral conscious sedation 10th International Congress on Dental Pain, International Federation of Dental Anesthesiology Societies, Yokohama Japan, October 6, 2006

Published papers:

Ventilatory Disturbances Resulting From Muscle Pain Following the Administration of Succinylcholine Chloride; *Medical Annals of the District of Columbia*, September 1968
Blind Nasotracheal Intubation Under Controlled Respiration; A Modified Technique. *The Journal of Oral Surgery*, December 1968
A Premix of 50% Nitrous Oxide - 50% Oxygen for Sedation During Dental Procedures, *Anesthesia Progress*, November 1983
Use of Electrical Anesthesia (EA) and Nitrous Oxide (N₂O) to Replace Local Anesthesia on 650 Patients: A summary of a Clinical Study with Emphasis on Dental Hygiene Procedures, *Washington State Dental Hygiene Association Newsletter*, 57:10, January 1988
Electrical Anesthesia, *California Dental Association Journal*, 35-40, December 1988
Clinical Experience with TENS and TENS Combined with Nitrous Oxide-Oxygen, Report of 371 patients, *Anesthesia Progress*, 36:, April 1989
More on E.A., *Nation-Wide Dental Newsletter*, p.7-11, 2:13, April 1989
The combined effect of nitrous oxide and oxygen and electrical stimulation during restorative dental treatment, *Journal of American Dental Association*, June 1989, vol. 118, no. 6, p-733
Electrical Anesthesia in Selected Dental Procedures, *Pain Management*, November-December 1989, vol. 2, no. 6, p 321-323
Clinical Experience with TENS and TENS Combined with Nitrous Oxide-Oxygen, Report of 371 patients, *Year Book of Dentistry 1990*, p. 333, Year Book Medical Publishers, Inc. Chicago
Nitrous Oxide is Safe, *Seattle King County Dental Society Journal*, vol. 31 no. 6, January 1991, and p.8-12
Clinical Study of Diffusion Hypoxia after Nitrous Oxide Analgesia, *Anesthesia Progress*, vol. 38, no. 1 1991 p. 21-23
Clinical Experience with TENS and TENS Combined with Nitrous Oxide-Oxygen, Report of 371 patients, *Journal of the Society for the Advancement of Anesthesia in Dentistry*, Vol. 8, No. 1/2 April 1991 p. 7-11
Electronic Dental Anesthesia, *Proceedings of the 6th International Congress on Dental Pain Control*, May 1991
Electrical Anesthesia Equipment and its Use, *The California Dental Institute for Continuing Education*, vol. 38 p. 28-43
Comparison of 3 automatic blood pressure screening devices, *J.A.G.D.* vol. 40 no. 6, Nov-Dec 1992 p. 496-7
A comparison of H-wave and square wave wave forms to control pain for dental procedures: a clinical study, *J.A.G.D.*, Mar-Apr. 1993 vol. 41 no. 2 p.128-131
Experience with Triazolam in Preschool Children, *Anes. and Pain Control in Dent.*, vol. 1, no. 3, Summer 1992
Sedation of Phobic Dental Patients with an Emphasis on the Use of Oral Triazolam, Halcion, *California Dental Institute for Continuing Education*, vol. 45, p. 29-64, May 1993
The Efficacy and Memory Effects of Oral Triazolam Premedication in Highly Anxious Dental Patients, *Anes. progress*, 41:70-76 1994
Electronic Anesthesia vs. Topical Anesthesia for Pain Control During Local Anesthesia Injections: Should We Shock 'em Before We Block 'em? *Quintessence International*, Oct. 1994
First Scope - First Month, *The Fox Valley Observer*, Jan., 1995, p. 2
Patients evaluate electronic and topical anesthesia used for injection pain, *Dental Abstracts*, 1995 vol., 40, no. 3, p. 137
First Scope - First Month, *The Webbed Foot Astronomer*, Nov., 1995
General Dentistry, letter to the editor N₂O Inappropriate limits no laughing matter, vol. 45 no 2, March April 1997
Practice valuation - the bottom line, *WashAGD Journal*, Oct. 2001
A Randomized Clinical Trial of 3 Agents to reduce Sensitivity After crown Cementation. *General Dentistry*, Jan./Feb., 1998
Eclipse'98, *Webfoot Astronomer* April 1998 p8-10
Eclipse photo, partial phase, *The Astronomer*, vol. 43 no. 407, March 1998, p C3
Nitrous Oxide Safety: How safe is it for staff? What can be done to make it safer, *Dentistry Today*, December 1999 vol. 18 #12, p 70-77
Sedation of Phobic Dental Patients With an Emphasis on the Use of Oral Triazolam *Dentistry on line* <http://www.priory.com/dentprof.htm>
What is quality dentistry? *ejDent.com*, July 2000, <http://www.godent.com/ejdenteditorials/guesteditquarn.2000.html>
Halcion Oral Sedation, <http://www.washagd.org/halc1.html> Nov. 2000
Where is the Racial diversity in Dental Hygiene, <http://www.washagd.org/denthyg.html>, Nov. 2000

What is Quality Dentistry? e-journal, August 2000
Exposure fosters racial understanding, Seattle Post Intelligencer Aug. 10, 2001 B7
Practice valuation - the bottom line, WashAGD Journal, Oct. 2001
Practice valuation - the bottom line, Dentistry Today, Feb 2002
Repairing fractured porcelain-fused-to-metal bridge pontics, JADA, vol 134 p1097-1100 August 2003
Viewpoint – Should dentists do oral sedation? Dentistry Today, March 2003
Triazolam Use in the General Dental Office, Dentaltown, vol.5 no. 7 July 2004 pp 50-54
Should general dentist be able to provide oral dental sedation, Second Opinion American Association of Dental Consultants, vol 9 no 2 August 2004, pp. 4-7
Triazolam Use in the dental setting: A report of 270 uses over 15 years, General Dentistry, vol. 52, no. 7 p496-501 Nov/Dec 2004
Embracing a culture he once fought: Unpacking emotional baggage in Vietnam, Beacon Hill News & South District Journal Aug 23, 2005
Variations of SaO₂ and Pulse Rate for Travelers from Sea Level to 16,000 feet, DOCS Newsletter Vol2 2004
Sedation and Anesthesia in the Dental Office, Beacon, p.21-24, vol28, no.2 Summer 2006

Published Reviews of other's papers

Review of Health Hazards and Nitrous Oxide: A Time for Reappraisal, Dental Study Club Journal of Continuing Dental Education, vol. 4, no 4, Aug. 1995
Review of The Efficiency of Nitrous Oxide Scavenging Devices in Dental Offices, Dental Study Club Journal of Continuing Dental Education, vol. 4, no 4, Aug. 1995
Review of Topical Anesthesia Differentiating the Pharmacological and Psychological contributions to efficacy, Dental Study Club Journal of Continuing Dental Education, vol. 4, no 4, Aug. 1965
Review of Reduced Fertility Among Women Employed as Dental Assistants Exposed to High Levels of Nitrous Oxide, Dental Study Club Journal of Continuing Dental Education, vol. 4, no 4, Aug. 1995
Review of Controlling Exposure to Nitrous Oxide During Anesthetic Administration, Dental Study Club Journal of Continuing Dental Education, vol. 4, no 4, Aug. 1995
Review of Nitrous-oxide use II. Risk of potential exposure and compliance among Nebraska Dentists and dental assistants, Dental Study Club Journal of Continuing Dental Education
Review of Nitrous oxide in the dental environment: Assessing the risk, reducing the exposure, Dental Study Club Journal of Continuing Dental Education
Review of Five-Year treatment outcomes for teeth with Large Amalgams and Crowns, Dental Study Club Journal of Continuing Dental Education
Review of Postoperative pain following bonded amalgam restorations, Dental Study Club Journal of Continuing Dental Education
Review of Nitrous-oxide use I. Risk of potential exposure and compliance among Nebraska Dentists and dental assistants, Dental Study Club Journal of Continuing Dental Education

Letters to the editor

Inappropriate limits no laughing matter, General Dentistry March/April 1997 vol. 45 no 2, p 104
Nitrous Oxide, JADA June 1997 vol. 128, p. 689-90
Nitrous Oxide, JADA October 1997, vol. 128 p. 1352
Trace Contaminants, JAGD 2003 jan-feb
Dentistry Today, letter to the editor Nitrous oxide is a safe sedative, vol. 15 No. 11, p 8-9, Dec. 1997
Mercury a toxic waste? WSDA Dec 2004
Who should be believe, Seattle PI guest editorial Dec. 26,2000
What has happened to America? Seattle PI Dec. 8, 2001
Silver amalgam does not poise a problem Seattle PI July 20 2002
Vietnam revisited South district Jornal 2005
Do we need written informed consent for local JADA March 2006

Speaking presentations at major meetings:

Nitrous oxide oxygen sedation, Washington State Dental Association state meeting, Seattle WA, May 14, 1970
Nitrous oxide oxygen sedation, Washington State Dental Association state meeting, Seattle WA, May 15, 1971
Nitrous oxide oxygen sedation, Oregon State Medical Association state meeting, Portland OR, Apr. 2, 1972
Nitrous oxide oxygen sedation, American Dental Hygiene Association National meeting, Houston TX, Oct. 17, 1973
Computers in dentistry, Washington State Dental Association, Seattle WA, May 16 - 18, 1985
Nitrous oxide oxygen sedation, Academy of General Dentistry National Meeting, Seattle WA, July 17, 1987
Electronic Dental Anesthesia , 6th International Congress on Dental Pain, Washington, D.C., May 1991
Nitrous oxide oxygen sedation, Wash. State Dental Hygiene Association, Seattle, WA, May 16, 1992
Halcion Oral Sedation, American Association of Pediatric Dentists, Seattle, WA, May 24, 1992

Halcion Oral Sedation, Washington State Dental Association, Seattle, WA, July 9, 1992
Electronic Dental Anesthesia, Washington State Dental Association, Seattle, WA, July 11, 1992
Halcion sedation electronic anesthesia 16th annual Symposium on Anesthesia, Loma Linda University, School of Dentistry, Feb. 19,20, 1995
Nitrous oxide Sedation 17th annual Symposium on Anesthesia, Loma Linda University, School of Dentistry, Feb. 11,12, 1996
Future of Anesthesia and Pain Control in Dentistry - Managed Care from a General Dentist, 43rd Annual Meeting American Dental Society of Anesthesiology New York, New York April 21, 1996
Electronic anes, halcion, intraosseous anes, Pacific NW Dental Conference, Seattle WA July 12, 1996
Electronic anes. 6th International Dental Seminar of the International Union of Schools of Oral Health - Pain Control in Dentistry Aug. 23,24, 1996 Vancouver B.C. Canada
Nitrous oxide sedation 8th International Congress on Dental Pain, International Federation of Dental Anesthesiology Societies, Christchurch NZ March 26, 1997
The Dental professional and internet 8th International Congress on Dental Pain, International Federation of Dental Anesthesiology Societies, Christchurch NZ March 28, 1997
Electronic Dental Anesthesia and Intraosseous local anesthesia 8th International Congress on Dental Pain, International Federation of Dental Anesthesiology Societies, Christchurch NZ March 28, 1997
Halcion, Nitrous oxide scavenging, Dental Insurance 7th annual meeting of the Australian Society of Dental Anesthesiology, Launceston Tasmania AU, Oct. 30, 1999
Where is the Racial diversity in Dental Hygiene, <http://www.washagd.org/denthyg.html>, April 2000, Washington Association of Dental Hygiene Schools
Third Party Dental Consultin g, NW Association of Third Party Administrators 40th annual meeting, Sun River Oregon, July 17, 2000
Halcion, triazolam, oral sedation: can it be safely titrated, American Society of Dental Anesthesia, Tucson AZ 3 May 2003.
SaO2 vs. Altitude, 10th International Congress on Dental Pain, International Federation of Dental Anesthesiology Societies, Edinburgh Scotland June 6, 2003
Pacific Basin Dental Association, Dental emergencies, local anesthesia, PowerPoint presentation, Dental Study Club, Koror Palau September 2-5 2003
Nitrous oxide, Halcion, dental emergencies, Guam Dental Association yearly meeting Guam, 20 21 Mar, 2004
Oral Halcion the Beautiful Black Swan or the Dirty Duck, ADSA national meeting, Key West FL, 1 May 2004
41 years of Dr. Q's mistakes, Oregon State Dental Association, April 6, 2006
Oral Conscious Sedation, Star of the North Dental Meeting – Minnesota State Dental Assn., St Paul Minn. April 30
Oral Conscious sedation, 10th International Congress on Dental Pain, International Federation of Dental Anesthesiology Societies, Yokohama Japan, October 6,2006

Published manuals books:

Electronic Dental Anesthesia, Seattle WA, Analgotronics, 1989
Halcion Oral Sedation / Nitrous oxide scavenging, Seattle WA, Analgotronics, 1990
Sedation of Phobic Dental Patients with an Emphasis on the Use of Oral Triazolam, Halcion®, Seattle WA, Analgotronics, 1992
Local Anesthesia of the Oral Cavity, chapter on electronic pain control, Philadelphia WB Saunders,1995
Manual of Minor Oral Surgery for General Dentists, chapter 8 sedation, Blackwell, Aug, 2006

Video audio tapes:

Electronic Dental Anesthesia - 1 hour, Jonesboro GA, Video Study Club, 1988
Electronic Dental Anesthesia - a 7 hour course, Seattle WA, Analgotronics 1990
Electronic Dental Anesthesia - 1 hour, 6th International Congress on Dental Pain, Washington, D.C., 1991
Electronic Dental Anesthesia - 1 hour, 3M introduction to EDA, 3M Co., St Paul MN, 1992
Halcion Oral Sedation - 3 hours, Washington State Dental Association, Seattle, WA, July 9, 1992
Electronic Dental Anesthesia - 3 hours, Washington State Dental Association, Seattle, WA, July 11, 1992

Media interviews

Electronic Dental Anesthesia, Beacon Hill News/South District Journal, 1987
Electronic Dental Anesthesia, KIRO TV, Seattle WA 1987
Electronic Dental Anesthesia, KING-TV, Seattle WA 1987
Halcion Sedation, Beacon Hill News/South District Journal, July 31, 1991
Halcion Sedation, KIRO-TV, Seattle WA, - ABC, New York, June 1992
High Tech. Pain Control Philip Bonner, D.D.S., Dentistry Today, p 70-73, June/July vol 11, No.5 1992
Electronic Dental Anesthesia, CBC-TV evening news, Vancouver, B.C. Canada, March 1, 1994
Electronic Dental Anesthesia, KUBE- FM, Seattle WA , May 19,1994 Morning show with Charlie and Ty

Electronic Dental Anesthesia, KBGE-FM, Seattle WA, June 6, 1994 "Solutions" with Kim Wilson
 Electronic Dental Anesthesia, KMBQ-FM, Seattle WA, June 27, 1994 wake up with Greg Thunder and John
 Electronic Dental Anesthesia, KOMO-TV, Seattle WA, July 1, 1994 evening news by Amy Chiu
 Electronic Dental Anesthesia, KVI-radio, Seattle WA, July 4, 1994 morning news by Clint Jones
 Treating Phobic Patients, KPTV-12, Portland WA, Dec. 4. 1994 Sunday Evening News Magazine
 Electronic Dental Anesthesia, Health Care News, Memphis TN Dec, 15, 1995
 Electronic Dental Anesthesia, Gannett Suburban Newspaper New Rochelle, NY Jan. 20, 1996
 No Pain, All Gain, *AGD Impact* vol. 24, no 4 April 1996
 Wired For Pleasure, *Prevention*, vol. 48, No.5, p 47-49, May 1996
 High Tech. Pain Control by Cheryl Farr, *Dentistry Today*, p 44-51, Dec vol. 15, No. 11 1996 including photo on cover.
 Anesthesiology New Developments and Personal Insights, *The Farran Report*. Nov. 1997

Clinics and Courses Presented:

1967

Cardiac arrhythmias as seen in tooth extractions under general anesthesia, Anesthesia Residents, Washington Hospital Center, Washington D.C.

Length	date	place	topic	group or sponsor
1969				
1/2 day	Jan. 3, 1969	Seattle WA	N2O Sedation	Seattle Dist. Dent. Soc.
1970				
1/2 day	May 14, 1970	Seattle WA	N2O Sedation	Wash. State Dent. Convention
2 day	Sept. 5, 1970	Seattle WA	N2O Sedation	
2 day	Oct. 10, 1970	Seattle WAN2O	Sedation Spokane	Analgesia Seminar
1971				
2 day	Jan. 3, 1971	Seattle WA	N2O Sedation	
2 day	Mar 4, 1971	Olympia WA	N2O Sedation	
2 day	Apr. 5, 1971	Seattle WA	N2O Sedation	
1 day	Apr. 10, 1971	Pullman WA	N2O Sedation	N. Idaho Dental Seminar
1/2 day	May 15, 1971	Seattle WA	N2O Sedation	Wash. State Dental Conv.
Eve	May 20, 1971	Bremerton WA	N2O Sedation	Kitsap Co. Dent. Soc.
Eve	May 27, 1971	Mc Cord AFB WA	N2O Sedation	N. W. Military Dent. Assn.
2 day	Jun 5, 1971	Portland OR	N2O Sedation	
2 day	July 10, 1971	Wichita KA	N2O Sedation	
2 day	Oct. 5, 1971	Salt Lake City UT	N2O Sedation	
2 day	Oct. 20, 1971	Portland OR	N2O Sedation	University of Oregon
2 day	Nov. 10, 1971	Seattle WA	N2O Sedation	
1972				
2 day	Jan. 5, 1972	Portland OR	N2O Sedation	University of Oregon
2 day	Feb. 21, 1972	Missoula MT	N2O Sedation	
2 day	Mar 7, 1972	Portland OR	N2O Sedation	University of Oregon
1/2 day	Apr. 2, 1972	Portland OR	N2O Sedation	Oregon State Medical Assn. Conv.
1/2 day	Apr. 10, 1972	Yakima WA	N2O Sedation	Yakima Co. Dent. Soc.
2 day	Apr. 17, 1972	Mc Cord AFB WA	N2O Sedation	
2 day	Apr. 24, 1972	Bellingham WA	N2O Sedation	
1/2 day	Apr. 29, 1972	Portland OR	N2O Sedation	University of Oregon
2 day	May 10, 1972	Eugene OR	N2O Sedation	University of Oregon
2 day	Jun 10, 1972	Bellingham WA	N2O Sedation	
1 day	July 21, 1972	Yakima WA	N2O Sedation	
1 day	Sept. 5, 1972	Tacoma WA	N2O Sedation	
2 day	Oct. 15, 1972	Bellingham WA	N2O Sedation	
2 day	Nov. 5, 1972	Portland OR	N2O Sedation	University of Oregon
1973				
2 day	Feb. 4, 1973	Vancouver B.C.	N2O Sedation	
2 day	Feb. 17, 1973	Seattle WA	N2O Sedation	Reg. Conv. Dent. Hygiene Inst.

1/2 day	Mar 2, 1973	Seattle WA	N2O Sedation	Shoreline Com. College
2 day	Mar 17, 1973	Portland OR	N2O Sedation	University of Oregon
2 day	July 10, 1973	Yakima WA	N2O Sedation	
2 day	Sept. 21, 1973	Bosie ID	N2O Sedation	University of Oregon
2 day	Oct. 3, 1973	Seattle WA	I V Sedation	
2 day	Oct. 17, 1973	Houston TX	N2O Sedation	Am. Dent. Hygiene Conv.
2 day	Oct. 24, 1973	Seattle WA	N2O Sedation	
2 day	Nov. 10, 1973	Portland OR	N2O Sedation	University of Oregon
1 day	Nov. 17, 1973	Wenatchee WA	N2O Sedation	
1974				
2 day	Jan. 15, 1974	Honolulu HI	N2O Sedation	
2 day	Feb. 24, 1974	Pocatello ID	N2O Sedation	Idaho St. University
1/2 day	Mar 7, 1974	Seattle WA	N2O Sedation	Shoreline Com. College
2 day	Mar 26, 1974	Honolulu HI	N2O Sedation	University of Oregon
2 day	Mar 29, 1974	Anchorage AK	N2O Sedation	University of Oregon
2 day	Apr. 29, 1974	Seattle WA	N2O Sedation	University of Washington
1 day	May 6, 1974	Yakima WA	N2O Sedation	
2 day	Jun 9, 1974	Portland OR	N2O Sedation	University of Oregon
1/2 day	Jun 17, 1974	Portland OR	I V Sedation	N. W. Analgesia Res. Gr.
1 day	July 27, 1974	Pendleton OR	N2O Sedation	
2 day	Nov. 1, 1974	Seattle WA	N2O Sedation	
Eve	Nov. 10, 1974	Seattle WA	N2O Sedation	Emer. Dept. Nurse Assn.
2 day	Nov. 17, 1974	Portland OR	N2O Sedation	University of Oregon
2 day	Nov. 29, 1974	Bellingham WA	N2O Sedation	
1975				
2 day	Mar 5, 1975	Portland OR	N2O Sedation	University of Oregon
2 day	Nov. 10, 1975	Portland OR	N2O Sedation	University of Oregon
1976				
2 day	Apr. 7, 1976	Seattle WA	N2O Sedation	
2 day	Apr. 21, 1976	Portland OR	N2O Sedation	University of Oregon
1 day	Nov. 29, 1976	Yakima WA	N2O Sedation	Yakima Valley Dental Hygiene
1977				
2 day	Mar 21, 1977	Portland OR	N2O Sedation	University of Oregon
2 day	Oct. 15, 1977	Portland OR	N2O Sedation	University of Oregon
1978				
2 day	Apr. 3, 1978	Portland OR	N2O Sedation	University of Oregon
2 day	Nov. 5, 1978	Seattle WA	N2O Sedation	University of Washington
2 day	Dec 10, 1978	Billings MT	N2O Sedation	
1979				
1/2 day	Feb. 7, 1979	Seattle WA	N2O Sedation	Burn Ctr. Harborview Hosp.
2 day	Mar 14, 1979	Seattle WA	N2O Sedation	University of Washington
2 day	Apr. 21, 1979	Fairbanks AK	N2O Sedation	University of Oregon
2 day	Apr. 28, 1979	Portland OR	N2O Sedation	University of Oregon
1980				
2 day	Feb. 27, 1980	Seattle WA	N2O Sedation	University of Washington
1/2 day	May 5, 1980	Seattle WA	Dent. Of. Hazards	University of Washington
2 day	May 28, 1980	Portland OR	N2O Sedation	University of Oregon
1/2 day	Jun 27, 1980	Yakima WA	N2O Sedation	Yakima Co. Dent. Soc.
1/2 day	Sept. 20, 1980	Seattle WA	Dent. Off. Hazards	U. of Wash Dent. Hygiene Dept.
1981				
1/2 day	May 10, 1981	Seattle WA	Practice Admin.	Shoreline Com. College
1/2 day	Sept. 17, 1981	Seattle WA	N2O Sedation	Wash. State Dent. Hygiene
1 day	Nov. 10, 1981	Portland OR	N2O Sedation	University of Oregon

1982

1 day	Jan. 5, 1982	Seattle WA	N2O Sedation	University of Washington
Eve.	Feb. 10, 1982	Bremerton WA	Computers Mgmt.	Kitsap Co. Dent. Society
1 day	Feb. 18, 1982	Seattle WA	Computers Mgmt.	University of Washington
1/2 day	May 25, 1982	Seattle WA	Practice Admin.	Shoreline Com. College
1 day	Sept. 12, 1982	Los Angeles CA	Computers Mgmt.	Pract. Mgmt. Assoc.
1 day	Sept. 13, 1982	Los Angeles CA	Practice Admin.	Pract. Mgmt. Assoc.
10 min.	Oct 4, 1982	Tokyo Japan	Pre mix N2O3rd	Internat. Pain Congress

1983

2 day	Jan. 22, 1983	Seattle WA	Practice Admin.	Pract. Mgmt. Assoc.
2 day	May 14, 1983	Vancouver B. C.	N2O Sedation	University of British Columbia
2 day	Nov. 12, 1983	Vancouver B. C.	Practice Admin.	University of British Columbia

1984

2 day	Feb. 3, 1984	Seattle WA	N2O Sedation	University of Washington
1 day	Jun 1, 1984	Yakima WA	Computers	Yakima Co. Dent. Soc.
2 day	Jun 8, 1984	Helena MT	N2O Sedation	Central City Study Club
2 day	Jun 15, 1984	Portland OR	N2O Sedation	University of Oregon

1985

2 day	Mar 30, 1985	Portland OR	N2O Sedation	University of Oregon
1 day	May 16, 1985	Seattle WA	Computers	Wash. State Dent. Assn.
1 day	May 18, 1985	Seattle WA	Computers	Wash. State Dent. Assn.
2 day	Jun 12, 1985	Portland OR	N2O Sedation	University of Oregon
2 day	July 19, 1985	Portland OR	N2O Sedation	University of Oregon
2 day	Oct. 3, 1985	Seattle WA	N2O Sedation	University of Washington
2 day	Oct. 20, 1985	Portland OR	N2O Sedation	University of Oregon

1986

2 day	Apr. 25, 1986	Portland OR	N2O Sedation	University of Oregon
1 day	Jun 7, 1986	Seattle WA	Computer Fair	University of Washington
2 day	Jun 13, 1986	Medford OR	N2O Sedation	University of Oregon
2 day	Sept. 29, 1986	Portland OR	N2O Sedation	University of Oregon
1 day	Nov. 8, 1986	Corvallis OR	N2O Sedation	Multnomah County Dental Society
2 day	Dec 5, 1986	Portland OR	N2O Sedation	University of Oregon

1987

2 day	Jan. 30, 1987	Portland OR	N2O Sedation	University of Oregon
1 hr.	Apr. 15, 1987	Bellevue WA	Elect. Anes.	Overlake study club
3 hr.	May 5, 1987	Seattle WA	Elect. Anes.	Asian Study Club
1/2 day	May 16, 1987	Seattle WA	Elect. Anes.	Wash State Dent. Conv.
2 day	May 17, 1987	Portland OR	N2O Sedation	University of Oregon
1 day	Jun 5, 1987	Seattle WA	Elect. Anes.	Analgotronics
2 day	July 17, 1987	Seattle WA	N2O Sedation	National AGD Meeting
1 day	Aug. 1, 1987	Bellevue WA	Elect. Anes.	Analgotronics
1 day	Sept. 12, 1987	Spokane WA.	Elect. Anes.	Analgotronics
Eve	Sept. 17, 1987	Seattle WA	Elect. Anes.	S. King Co. Study Club
1 day	Sept. 26, 1987	Portland OR	Elect. Anes.	Analgotronics
Eve	Oct. 20, 1987	Seattle WA	Elect. Anes.	Analgotronics
1 day	Nov. 20, 1987	San Jose CA	Elect. Anes.	Analgotronics
1 day	Nov. 21, 1987	San Mateo CA	Elect. Anes.	Seattle King Co. Dent. Society
1 day	Dec 5, 1987	Seattle WA	Elect. Anes.	Analgotronics
Eve	Dec 8, 1987	Seattle WA	Elect. Anes.	Analgotronics
1 day	Dec 12, 1987	Bellingham WA	Elect. Anes.	Analgotronics

1988

2 day	Jan. 8, 1988	Portland OR	N2O Sedation	University of Oregon
2 day	Jan. 22, 1988	Seattle WA	Elect. Anes.	University of Washington
1 hr	Jan. 26, 1988	Seattle WA	Elect. Anes.	V. A. Hospital

1 day	Jan. 29, 1988	Juneau AK	Elect. Anes.	SE. Alaska Study Club
1 day	Feb. 6, 1988	Salt Lake City UT	Elect. Anes.	Analgotronics
Eve	Feb. 10, 1988	Honolulu HI	Elect. Anes.	Study club
1 day	Feb. 13, 1988	Kona HI	Elect. Anes.	Analgotronics
1 day	Feb. 17, 1988	Salem OR	Elect. Anes.	Study Club
2 day	Feb. 26, 1988	Los Angeles CA	Elect. Anes.	2nd Annual Symp. Electronic Anes.
1 hr	Mar 1, 1988	Seattle WA	Elect. Anes.	U of Wash. Comm. Dentistry Dept.
1 day	Mar 12, 1988	Denver CO	Elect. Anes.	Analgotronics
1 day	Mar 26, 1988	Reno NV	Elect. Anes.	Analgotronics
1 day	Apr. 1, 1988	Anchorage AK	Elect. Anes.	Academy of General Dentistry
2 day	Apr. 8, 1988	Portland OR	N2O Sedation	University of Oregon
1 day	Apr. 15, 1988	Vancouver B.C.	Elect. Anes.	University of British Columbia
1 hr	Apr. 22, 1988	Jonesboro GA	Elect. Anes.	Video Study Club
1 day	Apr. 23, 1988	Jonesboro GA	Elect. Anes.	Analgotronics
1day	Apr. 25, 1988	Ashville NC	Elect. Anes.	Analgotronics
10 min.	May 13, 1988	Canberra Australia	Elect. Anes.	5th Intern Congress Pain Control
4 hr.	May 25, 1988	Portland Or.	Elect. Anes.	Grad. Student Hosp. Dentistry
2 day	Jun 10, 1988	Portland OR	N2O Sedation	University of Oregon
7 hr	Sept. 10, 1988	Seattle WA	Elect. Anes.	Analgotronics
2 days	Sept. 17, 1988	Vancouver B.C	.N2O Sedation	University of British Columbia
1 day	Sept. 23, 1988	Ashland OR	Elect. Anes.	S. Oregon Research Seminar
1 day	Oct. 1, 1988O	Omaha, NB	Elect. Anes.	Analgotronics
1 day	Oct. 15, 1988	Boston MA	Elect. Anes.	Analgotronics
eve	Nov. 1, 1988	Seattle WA	Elect. Anes.	Sea King Co Dent. Society
2 day	Dec 9, 1988	Portland OR	N2O Sedation	University of Oregon
1 day	Dec 29, 1989	Kauai HI	Elect. Anes.	Analgotronics

1989

3 hr	Jan. 11, 1989	Seattle WA	Elect. Anes.	Seattle Crown and Bridge Study Club
1 day	Jan. 14, 1989	Los Angeles CA	Elect. Anes	Analgotronics
1 day	Jan. 21, 1989	Phoenix AZ	Elect. Anes.	Analgotronics
evening	Feb. 13, 1989	Bellevue WA	Elect. Anes.	Bellevue Study Club
1 day	Feb. 18, 1989	Las Vegas NV	Elect. Anes	.Analgotronics
1 hr.	Feb. 23, 1989	Seattle WA	Elect. Anes.	U of Wash. Gen. Practice Residents
2 hr	Apr. 19, 1989	Portland OR	Elect. Anes.	U of Oregon Hospital dent. residents
1 day	Apr. 29, 1989	Chicago Ill	Elect. Anes.	Analgotronics
2 day	May 12, 1989	Portland OR	N2O Sedation	University of Oregon
1 day	May 19, 1989	New York NY	Elect. Anes.	Analgotronics
1 day	May 20, 1989	Wash. D.C.	Elect. Anes.	Analgotronics
1 day	Jun 16, 1989	Portland OR	Elect. Anes.	University of Oregon
1 day	July 10, 1989	Bridgeport CT	Elect. Anes.	Analgotronics
3 evenings	July 20, 1989	Kenai AK	Elect. Anes.	Analgotronics
1 day	Sept. 16, 1989	Dallas TX	Elect. Anes	.Analgotronics
2 day	Sept. 22, 1989	Portland Or	N2O sedation	University of Oregon
1 day	Sept. 25, 1989	Pendleton Or	Elect. Anes.	Eastern Oregon Dental Society
1 day	Oct. 20, 1989	Kansas City MO	Elect. Anes.	Analgotronics
1/2 day	Nov. 4, 1989	Honolulu HI	Elect. Anes.	American Dental Association
evening	Dec 12, 1989	Seattle WA	Elect. Anes.	Seattle King Co. Dent. Society

1990

2 day	Jan. 26, 1990	Los Angeles CA	Elect. Anes.	U. of Southern California
2 day	Feb. 23, 1990	Portland OR	N2O sedation	University of Oregon
1/2 day	March 2, 1990	Seattle WA	N2O Contamination	Institute for Applied Studies
1 day	March 3, 1990	Seattle WA	Elect. Anes.	Analgotronics
1 1/2 hr	March 5, 1990	Portland OR	Elect. Anes.	U of O Soph. Dent Students
1 day	March 31, 1990	Orlando FL	Elect. Anes.	Analgotronics
10 min.	May 5, 1990	Orlando FL	Diffusion hypoxia	National Am. Dent. Soc. Anes.
10 min.	May 5, 1990	Orlando FL	Halcion sedation	National Am. Dent. Soc. Anes.
10 min.	May 5, 1990	Orlando FL	Bp. monitors	National Am. Dent. Soc. Anes.
1 day	May 12, 1990	Salt Lake City	Elect. Anes.	Analgotronics
1 day	May 19, 1990	Denver CO	Elect. Anes.	Analgotronics

1 day	June 9, 1990	Phoenix AZ	Elect. Anes.	Analgotronics
2 day	June 20, 1990	Portland OR	N2O sedation	University of Oregon
1 day	July 19, 1990	Kenai AK	Elect. Anes	Analgotronics
eve	Sept. 14, 1990	Norfolk VA	Elect. Anes.	U. S. Navy Oral Surgery Study Club
2 day	Sept. 28, 1990	Portland OR	N2O sedation	University of Oregon
1 hr.	Oct. 5, 1990	Seattle WA	Halcion	Wash. State Pediatric Dental Society
1 hr.	Oct. 21, 1990	Vancouver BC	Elect. local Anes.	University of British Columbia

1991

2 hr.	Jan. 4, 1991	Tacoma WA	Elect. Anes. N2O	Pierce County Community College
Dental Hygiene students				
1 hr.	Jan. 11, 1991	Seattle WA	Halcion Sedation	Grad. Students U of W
2 day	Feb. 1, 1991	Portland OR	N2O sedation	University of Oregon
3 hr.	Feb. 19, 1991	Chicago IL	Elect Anes Tbl. Clinic	Chicago Midwinter Meeting
3 hr.	Feb. 19, 1991	Chicago IL	Halcion sedation	Chicago Midwinter Meeting
1 hr.	Mar 5, 1991	Portland OR	Elect. Anes.	U of O Soph. Dent Students
1 hr.	Mar 12, 1991	Seattle WA	Halcion Sedation	Seattle King Co. Dental Soc.
1 hr.	Mar 19, 1991	Everett WA	Elect Anes Halcion	Snohomish Co. Dental Soc.
1 hr.	Mar 28, 1991	Seattle WA	Elect. Anes.	Dent. Hygiene Study Club
1 hr.	Apr. 9, 1991	Seattle WA	Elect. Anes Halcion	U of W Hospital Dent. Residents
1 hr.	Apr. 14, 1991	Olympia WA	Elect. Anes. N2O	Thurston Co. Dent. Hygienists
1 hr.	Apr. 16, 1991	Everett WA	Elect. Anes. N2O	Snohomish Co. Dent. Hygiene
1 day	Apr. 26, 1991	Omak WA	Elect. Anes Halcion	Okanogan Valley Study Club
1 hr.	May 12, 1991	Wash. D.C.	Elec. Anes.	6th International Congress on
Modern Dental Pain Control				
1 hr.	May 12, 1991	Wash. D.C.	Halcion Sedation	6th International Congress on
Modern Dental Pain Control				
1 day	July 12, 1991	Bozeman MT	Elect. Anes Halcion	Big Sky Study Club
1 hr.	Aug. 12, 1991	Seattle WA	Halcion sedation	U of W Hospital Dental Res.
1 hr.	Aug. 19, 1991	Seattle WA	Nitrous oxide sed.	U of W Hospital Dental Res
3 hr	.Oct. 5, 1991	Seattle WA	Halcion Sedation	ADA Table Clinic
3 hr.	Oct. 6, 1991	Seattle WA	Elect. Anes.	ADA Table Clinic
3 hr.	Nov. 14, 1991	Seattle WA	Halcion sedation	Seattle Cr Bridge Seminar
2 day	Nov. 16, 1991	Vancouver BC	N2O sedation	University of British Columbia
2 hr.	Dec 5, 1991	Seoul Korea	Elect. Anes.	Kyung Hee University Dental School
2 hr.	Dec 5, 1991	Seoul Korea	Elect. Anes.	Hankil (Seoul) Dental Society
2 hr.	Dec 9, 1991	Taipei Tiawan	Elect. Anes.	Cathey Hospital Dental Department
2 hr.	Dec 9, 1991	Taipei Tiawan	Elect. Anes.	Mackay Hospital Dental Department

1992

2 hr.	Jan. 9, 1992	Federal Way WA	Elect. Anes.	South Puget Sound Dent Study Group
3 hr.	Jan. 24, 1992	Tacoma WA	Elect. Anes. N2O	Pierce County Community College
Dental Hygiene				
2 day	Feb. 7, 1992	Portland OR	N2O sedation	University of Oregon
3 hr.	May 8, 1992	La Paz, Bolivia	N2O, Halcion, EDA	Analgotronics
1 day	May 16, 1992	Seattle WA	N2O sedation	Wash. Dental Hygiene Assn.
1 hr.	May 24, 1992	Seattle WA	Halcion Sedation	American Assn. of Pediatric Dentists
3 hr.	July 9, 1992	Seattle WA	Halcion Sedation	Wash. State Dental Assn.
3 hr.	July 9, 1992	Seattle WA	Elect. Anes.	Wash. State Dental Assn.
2 hr.	Oct. 7, 1992	Seattle WA	Halcion sedation	U of W Hospital Dental Res
2 day	4 Dec, 1992	Portland OR	N2O sedation	University of Oregon
1 hr.	8 Dec, 1992	Seattle WA	Anesthesia	Seattle King Co. Dent. Soc.
1 day	11 Dec, 1992	Indianapolis IN	Elect. Anes.	Indiana University

1993

2 hr.	13 Jan., 1993	Seattle WA	Elect. Anes.	N.W. Dental Materials Study Club
1 day	15 Jan., 1993	Seattle WA	N2O, Halcion, EDA	University of Washington
1 day	16 Jan., 1993	Seattle WA	Elect. Anes.	University of Washington
1 day	29 Jan., 1993	Edmonton AB	Elect. Anes.	3M Company
1 day	30 Jan., 1993	Calgary AB	Elect. Anes.	3M Company
1 day	30 Jan., 1993	Calgary AB	Elect. Anes.	3M Company

1/2 day	1 Feb., 1993	Seattle WA	Elect. Anes.	Puget Sound Cont. Dental Ed. Gr.
1 hr.	2 Feb., 1993	Tacoma WA	Elect. Anes.	Pierce County Comm. College Dental Hygiene.
3 hr.	Feb. 19, 1993	Chicago IL	Elect Anes	Chicago Midwinter Meeting
3 hr.	Feb. 19, 1993	Chicago IL	Halcion	Chicago Midwinter Meeting
3 hr.	Feb. 20, 1993	Chicago IL	Elect Anes	Chicago Midwinter Meeting
3 hr.	May 12, 1993	Seattle WA	Elect Anes	Research Celebration Day University of Washington
2 day	June 24, 1993	Portland OR	N2O sedation	University of Oregon
1 day	Sept. 17, 1993	Spokane WA	N2O, EA, Halcion	Analgotronics
1 day	Oct. 8, 1993	Seattle WA	N2O, EA, Halcion	University of Washington
2 day	Dec 3, 1993	Portland OR	N2O sedation	University of Oregon
1994				
3 hr	Jan. 11, 1994	Seattle WA	N2O, Elect.	Anes..Shoreline Community
College Dental Hygiene				
1 hr	Jan. 11, 1994	Bellevue WA	Eect. Anes.	Seattle King Co. Dent. Soc.
2 hr.	25 Jan., 1994	Tacoma WA	Elect. Anes.	Pierce County Community
College Dental Hygiene				
3 hr.	Feb. 17, 1994	Chicago IL	Elect Anes	Chicago Midwinter Meeting
3 hr.	Feb. 17, 1994	Chicago IL	N2O Scavenging	Chicago Midwinter Meeting
3 hr.	Feb. 20, 1994	Chicago IL	Elect Anes Chicago	Midwinter Meeting
3 hr.	Feb. 20, 1994	Chicago IL	Halcion Sedation	Chicago Midwinter Meeting
1 hr.	Mar 6, 1994	Puerto Rico	EA N2O marketing	gAmer. Society of Dental Anes
2 hr.	Mar 8, 1994	Martinique	Electronic Anes.	Amer. Society of Dental Anes
2 hr.	Mar 9, 1994	Barbados	N2O Halcion sedation	Amer. Society of Dental Anes
2hr.	Mar 17,1994	Seattle WA	N2O Scavenging	NW Dent Hygiene Study Club
10 min.	15 Apr., 1994	Boston MA	Elect. Anes.Amer.	Society of Dental Anesthesia
4 hr	19 Apr., 1994	Alhambra CA	N2O Scav, Halci. EDA	San Gabriel Valley Dental Soc
2 days	23 Jun, 1994	Portland OR	N2O Sedation, EDA	University of Oregon
1.5 hr.	12 Oct., 1994	Seattle, WA	Dental Materials	Seattle Area Material and Production
Engineers Boeing Co.				
2 days	9 Dec, 1994	Portland OR	N2O Sedation, EDA	University of Oregon
1995				
1 hr.	11 Jan., 1995	Seattle WA	EDA, internet for dent.	Sea King Co. Dent. Society
1 hr.	23 Jan., 1995	Tacoma WA	EDA, N2O	Pierce Co. Comm. College Dental Hyg.
1 hr.	2 Feb., 1995	Miami FL	EDA, N2O, Halcion	Am. Dent. Soc. Anes.
2 hr.	7 Feb., 1995	Cosomel MX	Halcion sedation	Am. Dent. Soc. Anes.
2 hr.	9 Feb., 1995	Gulf of Mexico	EDA	Am. Dent. Soc. Anes.
2 day	Feb. 19,1995	Loma Linda CA	EDA, Halcion N2O	Loma Linda U. Dental School
1 day	4 Mar, 1995	Bend Or	EDA, N2O, Halcion	`Bend Dental Hygiene Group
1 hr.	20 Apr., 1995	Bellevue WA	EDA	Lake Wash. Dent. Hygiene Soc.
2 day	28 Apr., 1995	Vancouver BC	N2O EDA	University of British Columbia
3 hr	7 Oct., 1995	Las Vegas NV	EDA vs Topical	American Dental Assn.
1 hr	.4 Nov., 1995	Vancouver BC	IV sedation	University of British Columbia
GPR residents				
2 days	7 Dec, 1994	Portland OR	N2O Sedation, EDA	University of Oregon
1996				
1 day	Jan. 26, 1996	Seattle WA	N2O, scavenging	University of Washington
2 day	Feb. 11,1996	Loma Linda CA	EDA, Halcion N2O	Loma Linda U. Dental School
3hr.	April 21, 1996	New York NY	Future of Anes in Dent.	Am. Dent. Soc. of Anes.
6hr.	July 11, 1996	Seattle WA	EDA, halcion stab.	Pacific NW Dental Conference
15 min.	August 23,24 1996	Vancouver BC	Elect. Anes	6th International Dental Seminar of the
International Union of Schools of Oral Health - Pain Control in Dentistry				
4hr.	Nov. 20, 1996	Loma Linda CA	EDA, Halcion, N2O,	Loma Linda U. Dental School
1 day	Dec. 5, 1996	Phoenix AZ	EDA, Halcion, N2O, IA	Central Arizona Dental Assn
1997				
1 hr.	23 Jan., 1997	Tacoma WA	EDA, N2O	Pierce Co Comm. College Dental Hyg.

7 hr.	26 Mar, 1997	Christchurch NZ	N2O	International Federation of Dental Anesthesiology Societies
1 hr.	28 Mar, 1997	Christchurch NZ	Internet for Dentists	International Federation of Dental Anesthesiology Societies
2 hr.	29 Mar, 1997	Christchurch NZ	EDA, inteross. Injection	International Federation of Dental Anesthesiology Societies
2 hr.	29 Mar, 1997	Christchurch NZ	panel dental anes..	International Federation of Dental Anesthesiology Societies
1 day	5 Dec, 1997	Seattle WA	N2O, EDA, Halcion	University of Washington

1998

1 day	5 Dec, 1998	Sioux Falls SD	N2O, EDA, Halcion	SE Dental Society
30 min.	1 May, 1998	Vancouver BC	Halcion sedation	Am. Dent. Soc. Anes.
2 day	30-31 May, 1998	Portland OR	N2O sedation	University of Oregon
1 hr	24 July, 1998	Table Mountain	Video photography of moon	Table Mt. Star Party
3hr	23 Oct. 1998	San Francisco	N2O trace contaminants	Amer.Den Assoc. Tbl. Clinic
3hr	24 Oct. 1998	San Francisco	N2O trace contaminants	Amer. Den Assoc. Tbl. Clinic
4hr	21 Nov. 1998	Portland OR	Halcion, N2O, ins. Rev	Portland Implant Study Club

1999

2 hr.	8 Feb. 1999	Costa Rica at sea	Halcion Sedation	ASDA Anes Cruise
2 hr.	12 Feb. 1999	Cartagena Columbia	Trace contaminants	N2OASDA Anes Cruise
7 hr.	26 March. 1999	Juneau AK	N2O review	SE Alaska Study Group
7 hr.	27 March 1999	Anchorage AK	N2O review	University of Alaska
7 hr.	27 March 1999	Anchorage AK	N2O review	University of Alaska
0.5 hr.	12 May 1999	Shoreline WA	Solar Eclipse	Rotary, Shoreline Morning Club
7 hr.	11 Sept. 1999	Anchorage AK	N2O review	University of Alaska
7 hr.	12 Sept. 1999	Anchorage AK	N2O review	University of Alaska
7 hr.	9 Oct. 1999	Eugene OR	N2O halcion	Lane Co Dental Research Group
6 hr	.30 Oct. 1999	Launceston Tasmaina	N2O halcion	Australian Soc. of Dent Anes

2000

7 hr.	28 Feb. 2000	Vancouver WA	N2O Halcion, pain control	Cascade Dental Group
2 day	9-10 June 2000	Portland OR	N2O sedation	University of Oregon
1hr.	17 July 2000	Sun River OR	Dent. Consulting	NW Assn. 3rd Party
Administrators				
2 day	15-16 Sept. 2000	Seattle WA	Pain control	U of Washington
2 day	1-2 Dec 2000	Phoenix AZ	Halcion	IDF Study Club

2001

1 hr	8 Feb. 2001	Seattle WA	Dental Fraud	Lions Club Columbia City
2 day	22-23 Feb. 2001	Scottsdale AZ	Halcion	IDF Study Club
2 hr.	17 May 2001	Rosario WA	Dental Insurance	Washington Employer Trust
2 day	1-2 June 2001	Portland OR	N2O	U of Oregon
1 day	14 Sept. 2001	Walla Walla WA	Halcion N2O	Walla Walla Dent Soc.
1 day	19 Oct 2001	Seattle WA	Halcion N2O	Wash. Academy Gen Dent
1hr.	21 Nov 2001	Melbourne Australia	Dental Emerg.	Melbourne Dental Study Club
1 day	30 Nov 2001	Moses Lake WA	Halcion N2O	Moses Lk Dent Imp. Stdy Club
1hr.	17Dec 2001	Seattle WA	Dental care	Radcliff House for drug rehab.

2002

2hr.	28 Feb 2002	Seattle WA	Dent Emergency	Beacon Hill Dent Assoc.
1 hr	3 April 2002	Seattle WA	Dental Emergencies	NW Dental Study Club
3 hr	11 May 2002	Pago Pago Am Samoa FI	Varnish	U of W PICCE med school
8 hr	12-14 May 2002	Pago Pago	various topics	U of W PICCE med school
2 days	15-16 June 2002	Portland Or	N2O	OHSU
2 hr	5 Sept. 2002	Kirkland WA	Dent emerg	Dental Diag Treat. SC
2 hr	16 Oct 2002	Puyallup WA	N2O dental emerg	Dental Hygiene Study club

2003

1 hr	8 Jan 2003	Seattle WA	local anesthesia	Dental materials study club
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2 day	22-23 March 2003	Vancouver BC	Nitrous Oxide	Faculty of dentistry U of BC
1 day	18 April 2003	Seattle	Halcion dent. emerg.	Wash AGD
20 min.	3 May 2003	Tucson AZ	Halcion titration	ADSA national meeting
1 hr	6 June 2003	Edinburgh Scotland	SaO2 vs altitude	10th meeting International Federation of Dent. Anes
2 day	20-21 June 2003	Portland OR	Nitrous oxide halcion	U of Oregon Cont. Ed.
1 hr	24 July 2003	Seattle WA	Local anesthesia	Pac. NW Dental Congress
4 day	2-5 Sept 2003	Koror, Palau	Computers	D. emerg U of W PICCE, Pac Basin Den A.
2 day	12-13 Sept 2003	Seattle WA	Nitrous Oxide halcion	U of W Cont. Ed.
2 day	9-10 Oct 2003	Ft Lewis WA	Halcion nitrous oxide	Ft Lewis Army Dent. Residents
1 day	21 Nov 2003	Salt Lake City	Halcion Sedation	Private Group 250
2004				
1 hr	22 Jan 2004	Olympia WA	Halcion WA St Dent.	Quality Assurance Comm.
1 day	30 Jan 2004	Boston MA	Halcion, local, dent emerg.	Yankee Dental Congress
1 hr	31 Jan 2004	Boston MA	Halcion	Breakfast Yankee Dental Congress
1 day	26 Feb. 2004	Salt Lake City	Halcion sedation	Utah Dental Association
2 day	20-21 Mar. 04	Guam	halcion N2O	Guam Dental Society
2 day	27-28 Mar 2004	Vancouver	N2O	U of B. C.
1 hr	1 May 2004	Key West FL	Halcion conflict	ADSA
2 day	5-6 June 2004	Atlanta GA	Nitrous oxide halcion	DOCS
2 day	11-12 June 2004	Portland OR	Nitrous oxide halcion	U of Oregon Cont. Ed.
1 day	15 Oct 2004	Ft Lewis WA	Nitrous oxide	Ft Lewis Army Dent. Residents
2 days	3-4 Dec 2004	Miami FL	Nitrous halcion	DOCS
2 days	19-11 /Dec 2004	Seattle WA	Nitrous Halcion	U of W
2005				
2 day	11-12 Feb 2005	Miami FL	Nitrous Halcion	DOCS
2 day	10-11-May 2005	Portland Or	Nitrous oxide halcion	OHSU
1 day	14 May 2005	Seattle Wa	Nitrous oxide halcion	Plastic surgery course
2 day	17-18 May 2005	Pittsburg PA	Nitrous oxide Halcion	DOCS
3 hr	26 May 2005	Alaska	Dent Emerg. Halcion	Idf
2 hr.	24 Sept 2005	Ft. Lee NJ	Dental Emerg.	P. D. Dent. Seminars
3 hr	21 Sept 2005	Federalway WA	Dent Emerg. Halcion	WashAGD Study club
1 day	17 Oct 2005	Ft Lewis	N2O Halcion sedation	Ft Lewis Army Dent. Residents
2 days	20-21 Nov 2005	Seattle WA	Oral conscious sedation	Wash AGD
10 min	2 Dec 2005	Olympia WA	DQAC	House of Rep Health Care Committee
2006				
2 day	30-31 March 2006	Vancouver BC	Nitrous	U of British Columbia
1 day	1 April 2006	Vancouver BC	Halcion	U of British Columbia
1 day	8 April, 2006	Portland OR	Halcion emerg.	Oregon Dental Assn.
1 day	28 April, 2006	St Paul Minn	Halcion emerg n2o	Minn Dental Assn.
2 day	21-22 July 2006	Portland OR	N2O sedation	OCS OHSU
2 day	11-12 Aug 2006	Portland OR	N2O sedation	OCS OHSU
1 day	11 Sept 2006	Ft Lewis	N2O Halcion sedation	Ft Lewis Army Dent. Residents
2 hr	24 Sept 2006	Kent	N2O halcion emerg	Willamette Dent Group
10 min	6 Oct	Yokohama JP	Oral sedation	10 th IFDAS
2 day	15-16 Dec 2006	Portland	N2O sedation	OHSU
1 day	17 Dec 2006	Portland	Oral Cons Sed	OHSU
2007				
1 hour	Feb 7, 2007	Seattle WA	Oral Conscious Sed	Seattle C and B study club