

## CURRICULUM VITAE

# Fred C. Quarnstrom, D.D.S., F.A.D.S.A., F.A.G.D., F.I.C.D., C.D.C

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**home page** <http://faculty.u.washington.edu/~quarn>

**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 2 hours per month  
Continuing Dental Education courses attended - 2300 hours 1980 to 2005

**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

### **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

**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 Scout master, Assistant Scout Master, Japanese Baptist Church Troop 53

District Chairman Thunderbird District Boy Scouts

Candidate Washington State House of Representatives 37th district 1998

Rotary 2003 - present

**Family**

Married 32 years, 3 grown children

**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 1994-2005

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

**Professional Experience: (cont)**

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 present  
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

**Table clinics and Poster Presentations: (cont)**

- 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

**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

## 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 (N<sub>2</sub>O) 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 N<sub>2</sub>O Inappropriate limits no laughing matter, vol. 45 no 2, March April 1997
- Pr actice 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

### **Published papers:(cont)**

- 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

### **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. 1995  
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

### **Letters to the editor (cont.)**

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 pose a problem Seattle PI July 20 2002

### **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 Tasmiana 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

### **Speaking presentations at major meetings: (cont.)**

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

### **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  
Oral Surgery for General Dentists, chapter on sedation, to be published 2005

### **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.

<b>Length</b>	<b>date</b>	<b>place</b>	<b>topic</b>	<b>group or sponsor</b>
<b>1969</b>				
1/2 day	Jan. 3, 1969	Seattle WA	N2O Sedation	Seattle Dist. Dent. Soc.
<b>1970</b>				
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
<b>1971</b>				
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	
<b>1972</b>				
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
<b>1973</b>				
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
<b>1973 (cont.)</b>				
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	
<b>1974</b>				
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	
<b>1975</b>				
2 day	Mar 5, 1975	Portland OR	N2O Sedation	University of Oregon
2 day	Nov. 10, 1975	Portland OR	N2O Sedation	University of Oregon
<b>1976</b>				
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
<b>1977</b>				
2 day	Mar 21, 1977	Portland OR	N2O Sedation	University of Oregon
2 day	Oct. 15, 1977	Portland OR	N2O Sedation	University of Oregon
<b>1978</b>				
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	
<b>1979</b>				
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
<b>1980</b>				
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.
<b>1980 (cont.)</b>				
1/2 day	Sept. 20, 1980	Seattle WA	Dent. Off. Hazards	U. of Wash Dent. Hygiene Dept.
<b>1981</b>				
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
<b>1982</b>				
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
<b>1983</b>				
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
<b>1984</b>				
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
<b>1985</b>				
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
<b>1986</b>				
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
<b>1987</b>				
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
<b>1987 (cont.)</b>				
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
1 day	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, 1988	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

**1989 (cont.)**

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	Bellevue WA	Elect. Anes. Halcion	Interlake Dental Study Club
1 day	Nov. 24, 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.	August23,24 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

**1997 (cont.)**

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
1day 5 Dec, 1997	Seattle WA	N2O, EDA, Halcion	University of Washington

**1998**

1day 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 day15-16 Sept. 2000	Seattle WA	Pain control	U of Washington
2 day1-2 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
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	22Jan 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.
1hr	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
2 dau	17-18 May 2005	Pitsburg PN	Nitrous oxide Halcion	DOCS
3 hr	26 May 2005	Alaska	Dent Emerg. Halcion	IDF