

Curriculum Vitae

David Alfred Hanscom, MD

Current Position:

Vertus, Inc. Founder

- Consultant
 - Structured non-operative care systems
 - Optimizing physician performance in and out of the OR
 - Chronic pain workshops
 - Software development
- Author
 - Books published:
 - *Do You Really Need Spine Surgery? Take Control with a Surgeon's Advice*, 2019
 - *Back in Control: A Surgeon's Roadmap Out of Chronic Pain*, 2nd edition, 2016
 - *Back in Control: A Spine Surgeon's Roadmap Out of Chronic Pain*, 2012
- Vertus, Inc.
 - Vertus Press
 - Healing Chronic Pain
 - Optimizing physician performance
 - Creating Compassion in Class

Practice Positions:

Orthopedic spine surgeon
Swedish Neuroscience Specialists
Swedish Medical Center, Seattle, WA
September 1, 2008-December 31st, 2018

Orthopedics International
Seattle, WA
July 1, 2003 – August 30, 2008

Sun Valley Spine Institute
Ketchum, ID
December 21, 1998 – June 30, 2003

Orthopedic Physicians
A Division of Orthopedic Consultants of Washington, Inc., PS
August 3, 1986 – December 18, 1998

Robert Ching, M.D.
Associate in private practice of orthopedic surgery
Oroville, California
January – August 1985

Education/ Credentialing:

High School: Rio Lindo Academy Healdsburg, CA
1969-1971

College: B.S., Biochemistry, Pacific Union College, Angwin, CA
1971-1975

Medical School: M.D., Loma Linda University, Loma Linda, CA
1975-1979

Internship and Residency, Internal Medicine
Sacred Heart Medical Center, Spokane, WA
1979-1981

Residency, Orthopedics
University of Hawaii, Honolulu, HI
Chief: Lawrence Gordon
1981-1984

Fellowship, Orthopedic Trauma
UC Davis Medical Center, Sacramento, CA
Chief: Mike Chapman
July- December 1984

John H. Moe Spinal Deformity Fellowship
Minneapolis, Minnesota
Chief: David Bradford
September 1985- June 1986

Board Certified:

American Board of Orthopedic Surgeons, July 1988
American Board of Orthopedic Surgeons, Recertified 1996, 2007, 2017

Medical Licensure:

Washington, 1972 – 2/15/19
Hawaii, 1980 -
California, 1981 – 2/29/20
Idaho, 1998 – 6/30/18

Certifications:

Kyphon, Phoenix, AZ—2001
Charite Artificial Lumbar Disc—2005
Dynesys Stabilization Training - October 30,2006

Medtronic Artificial Cervical Disc—2007

Active Staff:

Swedish Hospital Medical Center, Seattle: Washington – 1986 – 12/31/18

Honorary Staff Swedish Medical Center: 1/1/19 – present

Honors and awards:

Magna Cum Laude

Pacific Union College, Angwin, CA

1971- 1975

Alpha Omega Alpha

Loma Linda University

Loma Linda, CA

1975-1979

Best Doctors of America, 2007—2019

Washington Magazine “Best Docs” 2010

Checkbook – Best Doctor - 2015

President’ Honor Roll – WorkCompCentral – 2015 – Contribution to Worker’s Comp

Professional Activities

Affiliations:

Alpha Omega Alpha, 1978

American Medical Association, 1979

King County Medical Society, 1986-Present

Washington State Medical Association, 1988-Present

North American Spine Society, 1988-Present

Fellow American Academy of Orthopedic Surgeons, 1990

Western Orthopedic Association, Puget Sound Chapter, 1991-1998

American College of Physician Executives, March 1995-1999

Idaho Medical Association, January 1999-2003

Idaho Orthopedic Society 1999-2003

Scoliosis Research Society- March 2008 – present

Charter for Compassion—Partner, May 2011-2014

Columnist:

Pain News Network – 2019 – present

Directorships:

President of the Puget Sound Spine Society – 2017-2019

Co-director of Seattle Combined Spine Fellowship, June 2009 – December 2018

Premera associate medical director—orthopedic surgery

November 2006- December 2015

Committee Positions:

Chairman of the non-operative care committee for the Scoliosis Research Society 2019

Puget Sound Health Alliance

March- October 2006

Non-Operative Care Committee--North American Spine Society 1999

Medical Standards Subcommittee

Washington State Department of Labor and Industry

1989-1993

WMSA Orthopedic Representative on the DOLI Liaison committee

1987-1989

Board Positions:

Swedish Spine Institute, June 1990

Swedish Hospital Foundation Board, 1991

Organizational Activities:

President: Puget Sound Spine Society, 1997-1998 and 2016-18

Board: Puget Sound Spine Society and membership chairman, January 2019 - present

Founder: Puget Sound Spine Society.

Founded January 1987

Hoffman Institute Process, February 20-27, 2009, Napa, CA

Consulting

Medical Consultant for First Health for surgical approval of orthopedic surgery, State of Washington Department of Labor and Industries 1996-1998

Founder and Medical Director, Swedish Hospital Spine Registry

1991-1998

Premera - consultant for musculoskeletal care. November 2006 – December 2015

Faculty Positions:

Clinical Faculty, Department of Orthopedics, University of Washington School of Medicine, Seattle, Washington, January 1, 1989 – 1996

Clinical Faculty, UC Davis, Sacramento, California, July 1984 – December 1984

Program chair/ co-chair

Optimizing Adult Spinal Deformity Surgery: It Takes a Village. Swedish Medical Center, Seattle, WA, Jan 16th, 2015.

Treating Chronic Pain Using the MBS model. Two-hour symposium for the American

Osteopathic Association Annual Meeting, Seattle, WA, October 27th, 2014. Faculty: Dave Clarke, MD, David Schechter, MD, Joel Konikow, MD. and Gordon Irving, MD

Optimizing Performance in the OR and Life. Scoliosis Research Society Annual Meeting, Anchorage, AK, September 2014

A Course on Compassion: Empathy in the Face of Chronic Pain, Swedish Medical Center, Seattle, WA, March 11th, 2011

Pressure Performance: An Athletic Performance Paradigm for Treating and Preventing Disability in Axial Low Back Pain. Seattle, WA, April 3rd, 2009

*Stress Management Using the Awareness Model—*Seattle, WA, September 2008

Overview of Chronic Pain. Elks Rehab, Boise, ID, 2001

Comprehensive Management of Low Back Pain. Sun Valley, ID, 2000

Toward a New Understanding of pain. Puget Sound Spine Interest Group. Seattle, WA, 1994

Team Management of Low Back Pain. Annual Post Graduate Convention - Neufeld Society, Loma Linda, 1993

Medical/Surgical Symposium of the Osteoporotic Spine. Swedish Spine Institute, Seattle, WA, November 1993.

Cervical and Head Trauma in Athletes. Swedish Spine Institute, Seattle, WA, October 1990

Workshops/ Seminars

Rewiring Your Brain to Alleviate Pain. Omega Institute, Rhinebeck, New York.

Five-day experiential workshop for chronic pain using the MBS model. Co-presenters: Fed Luskin, PhD, Jasmine Yohai and Babs Yohai

- August 18-23rd, 2013
- August 15-19th, 2014
- July 19-24, 2015

Relief from Chronic Pain. Omega Institute.

Three-day experiential workshop using the *Back in Control* principles to create a safe and structured environment. Co-prese

- July 2017 - Omega
- September 2017 – Talaris, Seattle, WA
- June 2018
- June 2019

Awake at the Wound Seminar—Athletic Performance Principles for Surgeons

- Newcastle Golf Club, March 2007 and October 2007
- Grand Targhee, Idaho, March 2008
- Swedish Hospital, Seattle, WA, March 2010
- Maine Medical Center, Portland, Maine, March 18th, 2010

- Swedish Hospital Administration, April 29th, 2010

Stress Management for Teachers
Annual Hyde Parent Teacher Symposium
Woodstock, CN, June 21st, 2008

Business:

Founder/ President of Vertus, Inc. 2001.

- Vertus Press
- Back in Control/ Direct your Own Care (DOC) – Structured approach to chronic pain
- Awake at the Wound – Applying athletic performance principles to surgery
- Creating Connection in Class (CCC) – Addressing anxiety in the classroom

Author:

Hanscom, David. *Do You Really Need Spine Surgery? Take Control with a Surgeon's Advice.* Vertus Press, Oakland, CA, 2019.

Hanscom, David. *Back in Control: A Surgeon's Roadmap Out of Chronic Pain, second edition,* Vertus Press. Seattle, WA, 2016.

Hanscom, David. *Back in Control: A Spine Surgeon's Roadmap Out of Chronic Pain.* Vertus Press, Seattle, WA, 2012.

Co-editor of the STOMP (Structuring the Management of My Pain) introductory chronic pain booklet: August 2012.

Peer Review Publications:

Garland D, Hanscom D, Keenan M, Smith C, Moore. Resection of heterotopic ossification in the adult with head trauma. *J Bone and Joint Surg* 1985; 67A: 1261 –1269.

Hanscom DA. Acute management of the multiply injured head trauma patient. *J head Trauma Rehab* 1987; 2:1-12.

Hanscom DA, Bloom BA. The spine in osteogenesis imperfecta. *Orthop Clin of North Am* 1988; 19(2): 446-458.

Hanscom DA, Winter R, Lutter L, Lonstein JE, Bloom BA, Bradford D. Osteogenesis Imperfecta: Radiographic classification, natural history, and treatment of spine deformities. *J Bone and Joint Surg* 1991; 74A: 598-616.

Cameron DE, Hanscom DA, Herring S. Rapid development of a spinal synovial cyst. *Spine* 1992; 17:1528-1530.

Carpenter C, Dietz J, Hanscom DA, Leung KYK, Wagner T. Repair of a Pseudarthrosis of the Lumbar Spine: A functional Outcome Study. *Journal of Bone and Joint Surgery* 1996; 78-A: 712-720.

Hanscom DA, Jex R. Sleep Disorders, Depression and Musculoskeletal Pain. *SpineLine* September/October 2001; 56-58.

Robinson J, Ricketts D, Hanscom DA. Musculoskeletal Pain. *The Paths of Pain* 2005; IASP Press, Seattle: 353-366.

Knight RZ, Schwaegler P, Hanscom DA, Roh J. Direct lateral lumbar interbody fusion for degenerative conditions: early complication profile. *J Spinal Disord Tech.* 2009; Feb; 22(1): 34-7.

Hussain N, Hanscom DA, and Oskouian R. Chyloretroperitoneum following anterior spinal surgery: report of 4 cases. *J Neurosurg: Spine* 2012; September 14th, 1-7.

Hussain N, Page J, Perez-Cruet M, Hanscom, D, Oskouian, R. Same Site Autologous Bone Graft Harvesting in Spinal Fusions. Submitted to *JNS Spine*, 5.14.

Hanscom, David A, Brox JI, and Bunnage R. Defining the Role of Cognitive Behavioral Therapy in Treating Chronic Low Back Pain: An Overview. *Global Spine Journal* 2015; 5:496-504.

Shoakazemi A, Moisi M, Tubbs R, Wingerson A, Ajayi O, Zwillman M, Gottlieb J and Hanscom D. (January 25, 2016) Necrotizing Fasciitis: A Life-threatening Complication of Intraoperative Electromyography. *Cureus* 8(1): e468. DOI 10.7759/cureus.468

Moisi, M, Fisahn C, Tkachenko L, Tubbs S, Ginat D, Grunert P, Jeyamohan S, Reintjes S, Ajayi O, Page J, Oskouian R, Hanscom D. Unilateral Laminotomy with Bilateral Spinal Canal Decompression for Lumbar Stenosis: A Technical Note. *Cureus* (2016); 8: e623, pp 1-11.

Moisi M, Fisahn C, Tubbs S, Page J, Paulson D, Kazemi N, Hanscom D, Oskouian, R. Lateral thoracic osteoplastic rib-sparing technique used for lateral spine surgery. *Cureus* (2016); 8: e668. DOI 10.7759/cureus.668.

Blecher R, Yilmaz E, Tubbs R, Moisi M, Hart R, Hanscom D, Oskouian R, and Jens Chapman. Cervico-thoracic Inter-spinous Bursitis associated with Bilateral upper Extremity Numbness: A Case Report. *Cureus* (2017): e.doi:10.7759.

Book Chapter:

Hanscom, David. *Revision Lumbar Decompressions. The Resident's Guide to Spine Surgery, Chapter 31.* Springer Verlag, 2019.

Published Abstracts:

Hanscom, DA; Sinter, R; Lutter; Lonstein, J; Bradford, D: Spinal deformity in osteogenesis imperfecta: Natural history and treatment. *Orthop. Trans* 11(1): 120, 1987

Exhibits:

Poster: Spinal deformities in Osteogenesis Imperfecta. American Academy of Orthopedic Surgeons Annual Meeting, San Francisco, CA, February 1986

Selected Published Articles:

Overcoming Family Triggers. Live Pain Free (2019); 11: issue 1, p 7.

Mental or Physical Health: Which is More Critical. Live Pain Free (2019); 10: issue 8, p 7.

The Abyss of Chronic Pain. Pain News Network, September 15, 2018.

Why I'm Leaving My Spine Surgery Practice. Pain News Network, June 5, 2018.

Aching Back? Why Surgery Is Not Indicated for Lower Back Pain, Case In Point, July 2012.
(Reproduced with permission from Case in Point)

A Surgeons' Perspective on the Hoffman Process. *Staying Connected*, March 2012.

Defining Solutions for Workers' Comp: Ability and Motivation. *American Chronic Pain Association Chronicle*, March 2012.

Physician Suicide: My Journey. *SpineLine*, p. 42, November/ December 2011.

Back from the Edge: Coping with Physician Stress. *The Doctor's Advocate*, 4th quarter, 2011.

The Cry of Chronic Pain-No One is Listening. *WSMA Preceptor*, pp. 1-2, 3rd quarter, 2011.

Presentations:

1. *Surgical management of non-radicular neck pain*

Washington Spine Institute

Bellevue, WA, November 2, 1995

2. *Early fractures stabilization in the poly-traumatized patient*

AAOS, New Orleans, LA, February 1986

3. *Management of Dupuytren's contractures*

Panel discussant, Residents' and Fellows' Hand Conference

Las Vegas, NV, January 1985 and Grand Rounds UC Davis, Sacramento, CA, May 1985

4. Table Instructor

AO Course

Sun Valley, ID, March 1985

5. *Spinal deformities in Osteogenesis Imperfecta: Natural history and treatment*.

- Minnesota Medical Society, Minneapolis, May 1986
- Scoliosis Research Society, Bermuda, September 1986
- American Academy of Orthopedic Surgeons, San Francisco, 1986
- Pediatric Orthopedic Society, Toronto, May 1987

6. *Operative management of L1 burst fractures*. Washington State Medical Association Meeting,

Lake Chelan, WA, June 1998

7. *Surgical Indications for Back Surgery in Injured Workers.* Washington State Labor and Industries Conference, Seattle, WA, 1989

8. *Comparative Lumbar Fusion Rates in Smokers versus Non-smokers.* Puget Sound Spine Interest Group, Seattle, WA, September 1990

9. *Boston Brace Treatment of Low Back Pain in Patients.*

- Puget Sound Spine Interest Group, Seattle, WA, November 1989
- North Pacific Orthopedic Society, Semi-Ah-Moo, WA, May 1990

10. *Surgical treatment of the osteoporotic spinal deformity.* Medical/Surgical Symposium of the osteoporotic spine, Swedish Medical Center, Seattle, WA, November 1991

11. *Anterior/Posterior Spine Fusion: Simultaneous vs. Sequential vs. Staged.*

With: Wagner, T; Leung, L; Heegard, E; Flener, J; Yamamoto, S.

Puget Sound Chapter of the Western Orthopedic Association
Semi-Ah-Moo, WA, May 1992

12. *Primary Steffee fusion for positive discograms.* With: Mark Remington. Puget Sound Chapter of the Orthopedic Association, Semi-Ah-Moo, WA, May 1992

13. *Low back pain: The physician part of the problem.* Symposium of Non-Radicular Low Back Pain, Loma Linda, CA February 1993

14. *The use of the Boston brace.* Symposium of Non-Radicular Low Back Pain, Loma Linda, CA February 1993

15. *The use of Spine Intake Questionnaires.* Symposium of Non-Radicular Low Back pain, Loma Linda, CA February 1993

16. *Failed low back syndrome.* Northwest Spine Review, Virginia Mason, Seattle, Washington, May 1993

17. *Complications of lumbar spine surgery.* Northwest of Spine Review, Virginia Mason, Seattle Washington, May 1993

18. *Surgical management of non-radicular neck pain.* Washington Spine Institute, Bellevue, WA, November 2, 1995

19. *Role of spine Fusion in the injured worker.* Idaho Annual Workers Comp Symposium, June 2002, Boise ID

20. *When is a chronic pain perspective appropriate?* Physical Medicine and Rehabilitation Review Course, Univ. of Wash, Seattle, WA, 2004, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2017, 2018.

21. *Axial neck pain- Surgeons Perspective*
Advances in The Treatment of Spinal Dysfunction - Physiotherapy Associates, Seattle, WA,
March 3, 2005
22. *Defined Organized Conservative Spine Care.* Washington State Society Pain Annual
Meeting- November 2006
23. *Treating the Imperfect Patient: What to do with those who do not meet the Inclusion Criteria,*
NASS 22nd Annual Meeting, Austin, TX, October 25, 2007
24. *Orthopedic Surgeon's Perspective on Axial Neck Pain after Motor Vehicle Accident,*
including Causality. Washington State Trial Lawyers Association, Seattle, WA, November 1,
2007
25. *Axial Low Back Pain—State of the Union and New Patient Classification.*
 - U of Washington Grand Rounds—January 2007, Seattle, WA
 - Henry Ford Hospital Grand Rounds—March 2008, Detroit, MI
 - Swedish Hospital Annual Nursing Symposium—October 2008, Seattle, WA
26. *Pressure Performance—A New Paradigm in Treating and Preventing Disability in Low Back
Pain Patients;* Swedish Hospital Symposium, April 3rd, 2009
 - *Medical Profession's Contribution to the Problem*
 - *DOC Project—Implementation*
 - *A New Definition of Conservative Care*
 - *Overview of the Athletic Performance Model Applied to Stress Management
Awareness Applied to You and Your Patients*
27. *Professional Burnout.* Puget Sound Spine Interest Group, Bellevue, WA, March 23rd, 2010
28. *DOC Overview.* Provsorce Alliance, SeaTac, WA, May 21st, 2010.
29. *Creating a Vision—Awake or Asleep at the Wound.* Annual Residents' and Fellows' Course,
Seattle Science Center, Seattle, WA, June 5th, 2010
30. *LBP—State of the Union—DOCC Principles.* Spine Management for the Primary Care
Physician. Swedish Medical Center, Seattle, WA, June 25th, 2010.
31. *Low Back Pain - State of the Union.* Lecture to University of Washington Pain Center
Conference, Seattle, WA, July 6th, 2010.
32. *Creating Your Vision.* Awake at the Wound lecture - SpineOne fellows' course, Seattle
Science Foundation, Seattle, WA, August 22nd, 2010.
33. *DOC Project Basics.* Lecture to family practice residents, Swedish Medical Center, Cherry
Hill, Seattle, WA, August 31st, 2010.
34. *Physician Burnout,* Lecture to pain fellows, University of Washington Pain Center, Seattle,
WA, September 16th, 2011.

35. *DOC Project Basics*, Presentation to Northwest Sports and Spine Physicians, Bellevue, WA, September 21st, 2010.
36. *Athletic Performance Principles Applied to the Operating Room. Awake at the Wound* presentation to the New England Vascular Society annual meeting, Rockport, ME, Sept 25th, 2010.
37. *Overview of the Athletic Performance Model Applied to Surgeons*. Seattle Surgical Society bi-monthly meeting, Seattle, WA, Sept 27th, 2010.
38. *LBP—State of the Union—DOC principles*. Seattle Sports and Spine bi-monthly Interest Group meeting, Seattle, WA, September 28th, 2010.
39. *Empathy in Evaluating Patients in Chronic Pain*. Seminar for pain fellows, University of Washington Pain Center, Seattle, WA, September 30th, 2010.
40. *Complex Spinal Surgery in the Context of the DOC Principles*. Orthopedic Conference, Swedish Medical Center, Seattle, WA, October 8th, 2010.
41. *Compassion in Dealing with Patients in Chronic Pain*. Annual Pain Seminar of the Pain Society of Oregon, Vancouver, WA, Feb 28th, 2011.
42. *Perfectionism—the Disconnect*. A Course on Compassion seminar, March 11th, 2011, Swedish Medical Center, Seattle, WA
43. *Awake at the Wound: Applying Athletic Performance Principles to Surgery*. One Spine fellows and residents' seminar, Swedish Medical Center, Seattle, WA, August 20th and 21st, 2011.
44. *Enjoying the Management of Chronic Pain*
- Puget Sound Spine Interest Group, Seattle, WA, Nov 17th, 2011
 - Peace South Hospital Staff Meeting, Vancouver, WA, Jan 16, 2012
 - Webinar hosted by the “Workfitnessdisabilityroundtable”, Sept 13th, 2012
 - North Pacific Orthopedic Society, Seattle, WA, Sept 15th, 2012
 - Impairment Without Disability conference hosted by The Mayo Clinic, St Paul, MN, Oct 11th, 2013
45. *Indications for Spine Surgery: Structural versus Non-structural Issues*
- University of Washington Pain Center, Sept 18th, 2012, Sept 30, 2013.
 - Premera Assistant Medical Director's Retreat, Oct 8th, 2012.
46. *Pediatric Spine for Primary Care*. Ninth Annual Pediatric Specialty Update for the Primary Care Physician. Swedish Hospital, Seattle, WA, Jan 25, 2013
47. *Managing the Difficult Patient*. Swedish Medical Center In-service, May 23, 2013.
- University of Washington Pain Service. Weekly lecture series, Sept 3rd, 2013.
48. *Assembling a Spine Center*. Spine Business Summit, Barrow Neurological Institute, Phoenix, AZ, Jan 31st, 2013.

49. *Assembling a Spine Center*. Spine Business Summit, Texas Back Institute, Dallas, TX, Feb 27th, 2014.
50. *Not Doing Spinal Deformity Surgery*. Swedish Medical Center Cherry Hill Grand Rounds, May 1st, 2014.
51. *Structured Approach to Chronic Pain*. Speaker, Russo CME, Eugene Oregon, June 7th, 2014.
52. *Am I Operating on Your Pain or Anxiety?* American Osteopathic Association Annual Meeting, Seattle, WA, October 27th, 2014.
53. *Optimizing Patient Selection for Deformity Surgery*. Presentation at the course, "Optimizing Adult Spinal Deformity Surgery: It Takes a Village." Swedish Medical Center, Seattle, WA, Jan 16th, 2015.
54. *Prehab: Optimizing Spine Surgery Outcomes*. CME Russo, Wenatchee, WA, January 30, 2015.
55. *Implementing a Prehab Approach for Spine Surgery*. Peace Health Primary Care Conference, Bellingham, WA, March 6th, 2015.
56. *Implementing a Structured Care Approach for Chronic Pain*. Lecture to the medical community, Wenatchee, WA, April 2015.
57. *Am I Operating on Your Pain or Anxiety?* SIRPA Course on Mind Body Syndrome. London, April 2015.
58. *Putting it All Together*. One Spine Course, Seattle Science Foundation, Seattle, WA, August 15th, 2015.
59. *A Structured Approach to Solving Chronic Pain and Spine Surgery in the Presence of Chronic Pain*. WOMA, Yakima, WA, March 19th, 2015
60. *Spine Surgery in the Presence of Chronic Pain*. Swedish/ Russo LBP conference, Yakima, WA, March 19th, 2015.
61. *The Role of Sleep in Chronic Pain*. Lecture to Swedish Cherry Hill Sleep Center, Seattle, WA, April 27th, 2016
62. *The Neurological Basis of Chronic Pain. Mental Health in Workers Compensation*, Seattle, WA, April 16th, 2016.
63. *Integrating Behavioral Health into Spine Care*. Behavioral Health Business Summit, Chicago, IL, May 12, 2016.
64. *From Reactive to Creative: Transforming Anger*. Keynote speaker, ARPA, Melbourne, Australia, Aug 7th, 2016.
65. *Neurophysiological Basis of Chronic Pain and Treating Chronic Pain from a Whole Person Perspective*. Keynote speaker, Southern Pain Society, New Orleans, LA, October 1, 2016.

66. *Reactive to Creative: Transforming the Anger of Pain*. WSIA Spring Conference, Seattle, WA, March 17th, 2017.
67. *Neurophysiological Basis of Chronic Pain*. South Central Foundation, Anchorage, AK. March 21st, 2017.
68. *Implementing a Structured Spine Care Program*. Tri-Cities Pain Conference, Pasco, WA, April 28th, 2017.
69. *Automated Systems Approach to Profiling Patients*. One Spine Masters Course, Seattle, WA. June 24, 2017.
70. *The Neurophysiological Basis of Chronic Pain*. Keynote speaker, Oregon Physical Therapy Association Annual meeting, Portland, OR, September 30th, 2017.
71. *Curing Chronic Pain*. SIRPA conference, London, October 15th, 2017.
72. *Optimizing Surgical Outcomes through Prehab*. Spokane Pain Conference, Spokane, WA, October 28th, 2017.
73. *The Perils of Spine Surgery: A Surgeon's Roadmap Out of Chronic Pain*. Google talks, February 27th, 2018. <https://www.youtube.com/watch?v=B5cwZ2iu8jU&t=2912s>.
74. *The Neurophysiological Basis of Chronic Pain*. Therapeutic Associates, Seattle, WA, March 3rd, 2018.
75. *Optimizing Surgical Outcomes: Prehab*. Wenatchee Valley Medical Conference, Wenatchee, WA, April 13th, 2018.
76. *Optimizing Surgical Outcomes: Prehab*. Seattle Science Foundation, Seattle, WA, April 18th, 2018.
77. *Neurological Basis of Chronic Pain and Operationalizing the DOC Process*. Wyoming Physical Therapy Workshop, Cheyenne, WY, May 19th, 2018.
78. *Optimizing Performance. In and Out of the OR*. The Art of Neuroscience Seminar. Sponsored by the OSF Healthcare System, Chicago, IL. June 23rd, 2018.
79. *Plight of Workers Comp: Anger*. Webinar with Chris Brigham, July 18th, 2018.
80. *Neurological Nature of Chronic Pain*. WCI conference, Orlando, FL. April 20th, 2018.
81. *Optimizing Performance In and Out of the OR*. UCSF resident's conference, San Francisco, CA, September 10th, 2018.
82. *Solving Chronic Pain with a Self-Directed Process*. Rose Conference, Minneapolis, MN, September 21st, 2018.
83. *The Myth of Back Surgery: What We know vs What We are Doing*. Southern Pain Society, Atlanta, GA, September 22nd, 2018.

84. *The Neurophysiological Basis of Chronic Pain*. IME seminars, Seattle, WA, September 29th, 2018.

85. *Substance Abuse and Bad Behavior – Coping Mechanisms and Understanding the Neurological Nature of Chronic Pain*. Scoliosis Research Society Annual Meeting, Bologna, Italy, October 10th, 2018.

86. *Safer Pain Management from a Surgeon's Perspective*. America's Opioid Crisis: Improving Education, Treatment and Policy. Kaiser Annual Primary Care Pain Update, Washington DC, October 20th, 2018.

87. *Opioids and New Advances in Pain Management*. King County Medical Society, Seattle, WA, December 11, 2018.

88. *Implementing a Structured Pain Program into a Pain Practice*. Integrated Pain Solutions quarterly meeting, Pinehurst, NC, January 11, 2019.

89. *Optimizing Performance In and Out of the OR*. USCF and St. Mary's Hospital. Resident's conference, San Francisco, CA, January 13, 2019.

90. *Enjoying the Management of Chronic Pain*. Puyallup Indian Tribe Primary Care workshop, Puyallup, WA, February 7, 2019.

91. *The Surgical Treatment of LBP: State of the Union*. Oregon Pain Summit, Lebanon, OR, January 27th, 2019.

Outside interests:

Current:

Golf, tennis, snow skiing, weight training, hiking, fishing, reading, bird watching, writing poetry, table tennis, public speaking, non-fiction writing.

Past:

Water skiing, basketball, racquet ball, jogging, slow-pitch softball, trumpet.

Updated 9.4.19