

Curriculum Vitae

Ira Manning Parsons, IV, MD (Moby)

Addresses

Business Address: The Knee, Hip and Shoulder Center
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Biographic

Birth date: August 29, 1969

Birth place: Baltimore, MD

Citizenship: United States

Education

Undergraduate: Georgetown University
1988-1992
Washington, D.C.
College of Arts and Sciences
Degree: BA (American History/English)

Undergraduate (cont): Johns Hopkins University
06/1991-08/1991
Baltimore, MD
(Summer Physics Program)

Graduate: Columbia University
1992-1996
College of Physicians and Surgeons
New York, NY
Degree: MD

**Graduate Orthopaedic
Research Fellowship** Orthopaedic Biomechanics Laboratory
06/93-08/1993 Johns Hopkins University
Baltimore, MD
Edmund Y-S. Chao, Ph.D. (Director)

Post-Graduate Training

**General Surgery
Internship:** University of Pittsburgh
Pittsburgh, PA

1996-1997

**Orthopaedic Surgery
Research Fellowship:**
1997-1998

Musculoskeletal Research Center
Shoulder Biomechanics Laboratory
Pittsburgh, PA
Savio L-Y. Woo, Ph.D. (Director)
Jon J.P. Warner, MD (Co-Director)

**Orthopaedic Surgery
Residency:**
1998-2002

University of Pittsburgh
Pittsburgh, PA
Kenneth M. Yaw, MD (Director)

**Clinical Instructor
Orthopaedic Surgery:**
2001-2002

University of Pittsburgh
Pittsburgh, PA
Freddie H. Fu, MD (Chairman)

**Shoulder and Elbow
Surgery Fellowship:**
2002-2003

University of Washington
Seattle, WA
Frederick A. Matsen, III, MD (Director)

**Acting Instructor
Orthopaedic Surgery:**
2002-2003

University of Washington
Seattle, WA
Frederick A. Matsen, III, MD (Chairman)

**Shoulder Arthroscopy
Fellowship**
3/2003

Southern California Orthopaedic Institute
Van Nuys, CA
Stephen J. Snyder, MD (Director)

**Shoulder and Elbow
Surgery Fellowship:**
8/2003 - 1/2004

University of Sydney
Sydney, NSW, Australia
David Sonnabend, MD, FRCSA (Director)

Medical Licensing

State Licensures:

- 1999
- 2002
- 2003

Pennsylvania
Washington
New Hampshire

Board Certification

- 2007
- 2016

American Board of Orthopaedic Surgeons
MOC Recertification ABOS: 99th Percentile
expires 12/31/2027

Work History

- Seacoast Orthopedics and Sports Medicine
- Somersworth, NH 02/2004 - 04/2017

- The Knee, Hip and Shoulder Center
- Portsmouth, NH 05/2017 - present

Hospital Affiliations

- Wentworth Doulgass Hospital 2004 - 2021
- Dover, NH
- Frisbie Memorial Hospital 2004 - present
- Rochester, NH
- Portsmouth Regional Hospital 2017 - present
- Portsmouth, NH
- Stratham Ambulatory Surgery Center 2017 – present
- Atlantic Coast Surgical Suites 2019 - present

Positions and Committees Held

- University of Pittsburgh Medical Center, Presbyterian Hospital, Clinical Instructor in Orthopaedic Surgery, 2001-2002.
- University of Pittsburgh Medical Center, Montefiore Hospital, Pittsburgh, PA: Clinical Instructor in Orthopaedic Surgery, 2001-2002.
- University of Pittsburgh Medical Center, Southside Hospital, Pittsburgh, PA: Clinical Instructor in Orthopaedic Surgery, 2001-2002.
- VA Pittsburgh Health Care System, University Drive Medical Center, Pittsburgh, PA: Clinical Instructor in Orthopaedic Surgery, 2001-2002.
- University of Washington Medical Center, Seattle, WA: Acting Instructor in Orthopaedic Surgery, 2002-2003.
- Royal North Shore Hospital, Sydney, NSW, Australia: Visiting Medical Officer, 8/2003-1/2004
- Dubbo Base Hospital, Dubbo, NSW, Australia: Locums Consulting Physician, 8/2003-1/2004}
- Partner, Seacoast Orthopedics & Sports Medicine, Somersworth, NH, 2006 - present
- Wentworth Douglas Hospital, Dover, NH: Orthopaedic Surgery Staff, 1/2004-
- Frisbie Memorial Hospital, Rochester, NH: Orthopaedic Surgery Staff, 1/2004-
- Clinical Adjunct Professor, Department of Kinesiology, University of New Hampshire, Athletic Trainers Department
- Executive Committee Member at Large, Seacoast Orthopedics & Sports Medicine, 01/2006 – 12/2007
- Medical Records Committee, Wentworth Douglass Hospital, 01/2006 – 12/2006
- Board of Directors, Frisbie Health Services, 01/2007 – 01/2009
- Board of Directors, Seacoast RediCare, 08/2007 – 11/2009

- Board of Directors, Joint Replacement Center, Wentworth Douglass Hospital, 09/2006 –
- New Technology Assessment Committee, Wentworth Douglass Hospital, 06/2007 – 04/2017
- Anticoagulation/Antithrombotic Task Force, Wentworth Douglass Hospital, 10/2007 – 04/2017
- Medical Executive Committee, Wentworth Douglass Hospital, 01/2009-05/2017
- Medical Director, Wentworth Douglass Hospital, Joint Replacement Center, 2010 -04/2017
- OR Steering Committee, Wentworth Douglass Hospital, 03/2011-04/2017
- Bundled Payment Pilot Project Committee, Wentworth Douglass Hospital, 09/2011-5/2017
- Northeast Purchasing Coalition Taskforce, 10/2011-present
- Surgical Care Steering Committee, 11/2014-04/2017
- Perioperative Surgical Home Development Team, Portsmouth Regional Hospital, 09/2017 - 2019
- Enhanced Recovery After Surgery Committee; Portsmouth Regional Hospital; 2019-2021
- Total Joint Committee; Portsmouth Regional Hospital; 2019 – present
- New England Shoulder and Elbow Surgeons, Member-at-Large; 2022-present

Awards and Honors

Undergraduate:

Cum Laude: Cumulative GPA: 3.62/4.0
Varsity Letter: Rowing 1989-1992

Graduate:

New York Orthopaedic Hospital Award
Outstanding Student in Orthopaedic Surgery
Columbia University

Postgraduate:

Neer Award, American Shoulder and
Elbow Surgeons, Outstanding Clinical
Research Paper

Career:

Patient's Choice Award, 2010, 2014,
2017, 2019, 2020, 2021, 2022

Medtronic Surgeon of the Year Award
2013

NH Top Doctors: 2020, 2021, 2022

Membership In Professional Societies

- Fellow, American Academy of Orthopaedic Surgeons; *2004*
- American Board of Orthopaedic Surgery; *September 2007-present*
- Pennsylvania Orthopaedic Society; *1999-2002*
- New Hampshire State Medical Society; *2004-present*
- New Hampshire Orthopaedic Society; *2004-present*
- New England Orthopaedic Society; *2004-present*
- New England Shoulder and Elbow Society; *2004-present*
- American Association of Hip and Knee Surgeons; *2008-present*
- American Shoulder and Elbow Surgeons, *2019-present*

Courses Attended

- International Congress on Surgery of the Shoulder, Sydney Australia, 1997
- The SCOI CLASRoom, Southern California Orthopaedic Institute, Van Nuys, CA (3/1 – 3/5/2003)
- The Masters Experience in Advanced Shoulder Arthroscopy, Arthroscopy Association of North America, Orthopaedic Learning Center, Rosemont, Ill (4/4-4/6/2003)
- Techniques in Arthroscopic Repair, sponsored by Arthrotek, The Orthopaedic Learning Center, Rosemont, IL (5/7/2003)
- Prosthetic Options for Management of Cuff Tear Arthropathy; sponsored by DePuy, The Orthopaedic Learning Center, Rosemont, IL (7/29/2004)
- DePuy Delta Shoulder Prosthesis Training Course, Chicago, IL (07/29/2004)
- Current Concepts and Techniques in Arthroscopic Shoulder Surgery, Arthrex Learning Center, Naples, FL (10/22/2004)
- Current Concepts in Joint Replacement Surgery, Orlando, FL (12/08-12/11/2004)
- The Mayo Elbow Course: Fractures, Rochester, MN (04/07-04/09/2005)
- Oxford Unicompartmental Knee Replacement Training Course, Michael Kolczun, MD (Mentor), Loraine, Ohio (08/14/2005)
- Tissue Sparing Solutions in Joint Replacement Surgery, Phoenix, AZ (12/08-12/10/2005)
- Primary and Revision Total Knee Arthroplasty, Insights and Techniques, American Academy of Orthopaedic Surgery, Rosemont, IL (10/14-10/15/2006)
- Elbow Arthroscopy, Mayo Clinic Annual Elbow Course, Rochester, MN (05/2007)
- Musculoskeletal Ultrasound, sponsored by Sonosite, Inc., New York, NY (10/29/2007)

- Advanced Treatment of Shoulder Fractures: Open Reduction, Internal Fixation to Arthroplasty, sponsored by Synthes, Tucson, AZ (12/03/2007)
- American Academy of Orthopaedic Surgeons Annual Meeting, San Francisco, CA, 2008
- American Academy of Orthopaedic Surgeons Annual Meeting, Las Vegas, NV, 2009
- Anterior Approach to Total Hip Arthroplasty, sponsored by Smith and Nephew, Boston Massachusetts, June 17th, 2010.
- International Congress on Shoulder and Elbow Surgery, Edinburgh, Scotland, September 2010
- American Shoulder and Elbow Surgeons Open Meeting, Scottsdale, AZ, October 2010
- New England Shoulder and Elbow Surgeons Annual Meeting, Jay Peak Resort, Jay Vermont, 2005, 2006, 2007, 2008, 2009, 2010, 2011, 2012, 2013, 2015, 2016, 2017, 2018, 2019, 2020, 2021, 2022, 2023
- American Association of Hip and Knee Surgeons Annual Meeting, Dallas, Tx, 2011, 2013, 2021
- American Academy of Orthopaedic Surgeons Annual Meeting, Chicago, IL, March 2013.
- Wentworth Douglass Hospital Physicians Executive Leadership Institute, September 2012 – 2013.
- Maine Orthopaedic Society Annual Meeting, Sugarloaf, ME: 2006, 2009, 2015
- International Congress for Joint Reconstruction Annual Shoulder Meeting, Las Vegas, NV, November 2016
- Exactech Clinical Evaluators Annual Meeting: 2012, 2013, 2014, 2016, 2017, 2018, 2019, 2020, 2021, 2022
- American Academy of Orthopaedic Surgeons Annual Meeting, San Diego, CA, 2017
- International Congress on Shoulder and Elbow Surgery, Buenos Aires, Argentina, 2019
- International Congress on Shoulder and Elbow Surgery, Rome, Italy, 2023
- Orthopedic Summit Evolving Technologies, Boston, MA, September, 2022
- Orthopedic Summit Evolving Technologies, Boston, MA, September, 2023
- Catalyst Orthoscience Elite Shoulder Surgeons Meeting, Charlotte, NC, December, 2023

Course Taught

- Shoulder module, University of Pittsburgh School of Medicine Gross Anatomy Class, Pittsburgh, PA, 1997-2002.
- Forearm module, University of Pittsburgh School of Medicine Gross Anatomy Class, Pittsburgh, PA 1999-2001.
- Orthopaedics in the Primary Care Setting, University of Washington Medical Center, Seattle, WA, April 4-5, 2003.
- General Fracture Management, Northern Clinical School of Health Science, University of Sydney, Sydney Australia, Dec. 10, 2003.
- Shoulder Biomechanics, Department of Kinesiology, School of Health and Human Services, University of New Hampshire, April 9, 2007.
- Advanced Treatment of Shoulder Fractures: Open Reduction, Internal Fixation to Arthroplasty, sponsored by Synthes, Baltimore, MD (September 21, 2008)
- Advanced Treatment of Shoulder Fractures: Open Reduction, Internal Fixation to Arthroplasty, sponsored by Synthes, San Francisco, CA (7/31/2008)
- Advanced Treatment of Shoulder Fractures: Open Reduction, Internal Fixation to Arthroplasty, sponsored by Synthes, Dallas, Texas (5/12/2009)
- Primary Shoulder Arthroplasty and Fracture Reconstruction with the EPOCA Prosthesis, Synthes Annual Sales Meeting, Tuscon, AZ (12/8/2009)
- Advanced Treatment of Shoulder Fractures: Open Reduction, Internal Fixation to Arthroplasty, sponsored by Synthes, Salt Lake City, UT (1/15/2010)
- Advanced Treatment of Shoulder Fractures: Open Reduction, Internal Fixation to Arthroplasty, sponsored by Synthes, Pittsburgh, PA (6/10/2010)
- Advanced Treatment of Shoulder Fractures: Open Reduction, Internal Fixation to Arthroplasty, sponsored by Synthes, Salt Lake City, UT (10/22/ 2010)
- Primary Shoulder Arthroplasty and Fracture Reconstruction with the EPOCA Prosthesis, American Shoulder and Elbow Surgeons Meeting, Scottsdale, AZ (10/23/2010)
- Advanced Treatment of Shoulder Fractures: Open Reduction, Internal Fixation to Arthroplasty, sponsored by Synthes, Detroit, MI (9/24/11)
- Current State of the Art in Primary and Reverse Arthroplasty, sponsored by Exactech, Nashville, TN (5/21/14)

- Mastering Glenoid Exposure, The Challenging Glenoid and The Reverse Shoulder, sponsored by Exactech, Philadelphia, PA (6/15/2014)
- Cuff Sparing Total Shoulder Replacement Cadaver Lab, sponsored by Exactech, Irvine, CA (8/15/2014)
- Mastering Glenoid Exposure, The Challenging Glenoid and The Reverse Shoulder, sponsored by Exactech, San Francisco, CA (8/16/14)
- Mastering Glenoid Exposure, The Challenging Glenoid and The Reverse Shoulder, sponsored by Exactech, Boston, MA (10/14/2014)
- State of the Art Primary and Reverse Total Shoulder Arthroplasty, sponsored by Exactech, Las Vegas, NV (7/6/15)
- Computer Navigation in Shoulder Replacement, sponsored by Exactech, Miami, FL (11/6/15)
- Computer Navigation in Shoulder Replacement, sponsored by Exactech, Austin, TX (8/4/16)
- Mastering Glenoid Exposure, The Challenging Glenoid and The Reverse Shoulder, sponsored by Exactech, Indianapolis, IN (10/21/2016)
- Future Applications of Guided Personalized Surgery, Exactech Masters Course, New York, NY (5/7/17)
- GPS Navigation of Primary and Reverse Shoulder Replacement, sponsored by Exactech, San Diego, CA (10/13/17)
- The Role of Social Media in Modern Orthopaedic Practice, Exactech Clinical Evaluators Meeting, Park City, Utah, 2021
- The Anatomic Reverse Shoulder Arthroplasty, sponsored by Catalyst Ortho Science, Nashville, TN, 9/22/2023

Peer-Reviewed Publications

1. Debski RE, **Parsons IM**, Fenwick JA, Vangura AB, Fu FH, Woo SL-Y. Ligament mechanics during 3-degree-of-freedom motion at the acromioclavicular joint. *Annals of Biomedical Engineering* 28 (6): 612-618, 2000 Jun.
2. Apreleva M, **Parsons IM**, Warner JJ, Fu FH, Woo SL-Y: Experimental investigation of reaction forces at the glenohumeral joint during active abduction. *Journal of Shoulder and Elbow Surgery* 9(5): 409-417, 2000 Sep-Oct.

3. Warner JJ, Higgins LD, **Parsons IM**, Dowdy P: Diagnosis and treatment of anterior-superior rotator cuff tears. *Journal of Shoulder and Elbow Surgery* 10(1): 37-46, 2001 Jan-Feb.
4. Debski RE, **Parsons IM**, Woo SL-Y, Fu FH: The effect of capsular injury on acromioclavicular joint mechanics. *Journal of Bone and Joint Surgery-American Volume* 83-A(9): 1344-1351, 2001 Sep.
5. Warner JJ, **Parsons IM**: Latissimus dorsi tendon transfer: A comparative analysis of primary and salvage reconstruction of massive, irreparable rotator cuff tears. *Journal of Shoulder and Elbow Surgery* 10(6): 514-521, 2001 Nov-Dec.
6. **Parsons IM**, Apreleva M, Fu FH, Woo SL-Y: The effect of rotator cuff tears on reaction forces at the glenohumeral joint. *Journal of Orthopaedic Research* 20(3): 439-446, 2002.
7. Weldon EJ 3rd, Boorman RS, **Parsons IM**, Matsen FA 3rd: "Ream and Run": the principles and procedures of non-prosthetic glenoid arthroplasty with prosthetic humeral hemiarthroplasty. *Techniques in Shoulder and Elbow Surgery* 5(2): 76-89, 2004.
8. **Parsons IM**, Millett PJ, Warner JJP: Glenoid wear after shoulder hemiarthroplasty: Quantitative radiographic analysis. *Clinical Orthopaedics and Related Research* (421) 120-5, 2004.
9. Hettrich CM, Weldon EJ 3rd, Boorman RS, **Parsons IM**, Matsen FA 3rd: Preoperative factors associated with improvements in shoulder function after humeral hemiarthroplasty. *Journal of Bone and Joint Surgery – American Volume* 86(7):1446-1451, 2004
10. Matsen FA, Clark JM, Titelman RM, Gibbs KM, Boorman RS, Deffenbaugh D, Korvick DL, Norman AG, Ott SM, **Parsons IM**, Sidles JA: Healing of reamed glenoid bone articulating with a metal humeral hemiarthroplasty: a canine model. *Journal of Orthopaedic Research*, 23 (1), 18-26, 2005
11. McCallister, WV, **Parsons IM**, Titelman, RM, Matsen, FA: Open rotator cuff repair without acromioplasty. *Journal of Bone and Joint Surgery – American Volume* 87(6):1278-83, 2005.
12. Buckingham B, **Parsons IM**, Campbell BA, Titelman RM, Smith KL, Matsen FA 3rd: Patient functional self-assessment in late glenoid component failure at three to eleven years after total shoulder arthroplasty. *Journal of Shoulder and Elbow Surgery* 14(4):368-74, 2005.

13. **Parsons IM**, O'Brien RJ, Hughes JS: Locked intramedullary nailing for treatment unstable proximal humerus fractures. *Techniques in Shoulder and Elbow Surgery*, 6(2): 75-86, 2005.
14. **Parsons IM**, Campbell BA, Titelman RM, Smith KL, Matsen FA 3rd: Characterizing the effect of diagnosis on presenting deficits and outcomes after total shoulder arthroplasty. *Journal of Shoulder and Elbow Surgery*, 14(6): 575-84, 2005.
15. **Parsons IM**, O'Brien RJ, Hughes JS: Elbow hemiarthroplasty for acute and salvage reconstruction of complex distal humerus fractures. *Techniques in Shoulder and Elbow Surgery*, 6(2): 87-96, 2005
16. **Parsons IM**, Blitzler CM: Small incision, intramedullary compression osteosynthesis of acute and non-united midshaft clavicle fractures. *Techniques in Shoulder and Elbow Surgery* 6(4):218-225, December 2005.6(4):218-225, December 2005.
17. Largacha M, **Parsons IM**, Campbell BA, Titelman RM, Smith KL, Matsen FA 3rd: Deficits in shoulder function and general health associated with sixteen common shoulder diagnoses: a study of 2674 patients. *Journal of Bone and Joint Surgery*, 15(1): 30-9, 2006
18. **Parsons IM**, Buoncristiani AM, Donion S, Campbell BA, Smith KL, Matsen FA 3rd: The effect of total shoulder arthroplasty on self-assessed deficits in shoulder function and health status in patients with capsulorrhaphy arthropathy. *Journal of Shoulder and Elbow Surgery*. 16(3 Suppl): S19-26, 2007
19. **Parsons IM**, Riley SM: Custom hybrid reverse prosthesis with retention of porous ingrowth humeral stem for irreparable subscapularis failure following total shoulder arthroplasty. *Techniques in Shoulder & Elbow Surgery*. 12(2):46-50, June 2011
20. **Parsons IM**, Hertel R: Optimization of Tuberosity Healing in Prosthetic Reconstruction of Displaced Proximal Humerus Fractures, *Techniques in Shoulder and Elbow Surgery* November 2011.
21. Hamilton MA, Polakovic S, Saadi P, Jones RB, **Parsons IM**, Cheung EV: Evaluation of Preoperative Implant Placement in Total Shoulder Arthroplasty, *Bull Hosp Jt Dis*, 73 Suppl 1: S45-51 (2015)
22. Greene A, Jones RB, Wright TW, **Parsons IM**, Saadi P, Cheung EV, Polakovic S, Hamilton MA: Distribution of Glenoid Implant Options for Correcting Deformities Using a Preoperative Planning Tool. *Bull Hosp Jt Dis*, Suppl 1: S52-6 (2015).

23. **Parsons M**: CORR Insights: What Factors are Associated with Clinically Important Improvement After Shoulder Hemiarthroplasty for Cuff Tear Arthropathy? *Clin Orthop Relat Res*. 2016 Dec; 474(12):2689-2691.
24. **Parsons M**, Riley SM: Resurfacing Total Shoulder Replacement with both Humeral and Glenoid-sided Biological Fixation: The Cage Match, *Techniques in Shoulder and Elbow Surgery*, April 2017
25. **Parsons M**, Routman HD, Roche CP, Friedman RJ Patient-reported outcomes of reverse total shoulder arthroplasty: a comparative risk factor analysis of improved versus unimproved case. JSES Open Access. 2019 Sep 13;3(3):174-178.
26. Jones R, Greene A, **Parsons M**, et al: Accuracy and Precision of Placement of the Glenoid Baseplates in Reverse Total Shoulder Arthroplasty Using a Novel Computer Assisted Navigation System Combined with Preoperative Planning: A Controlled Cadaveric Study. *Seminars in Arthroplasty: JSES*. 2020 May.
27. Verstraeete M, Conditt M, **Parsons M**, Greene A, et al: Assessment of Intraoperative Joint Loads and Mobility in Reverse Total Shoulder Arthroplasty Through a Humeral Trail Sensor, *Seminars in Arthroplasty: JSES* 2020 May 20(1); 2-12.
28. **Parsons IM**, Routman HD, Roche CP, Friedman RJ: Biomechanical Features of a Reverse Total Shoulder Arthroplasty Are Associated With Improvement in Active External Rotation, *J Orthop*. 2020 Aug 22;21:379-383.
29. **Parsons M**, Greene A, Polakovic S, Byram I, Cheung E, Jones R, Papandrea R, Youderian A, Wright T, Flurin PH, Zuckerman J: Assessment of surgeon variability in preoperative planning of reverse total shoulder arthroplasty: a quantitative comparison of 49 cases planned by 9 surgeons. *J Shoulder Elbow Surg*. 2020 Oct;29(10):2080-2088.
30. **Parsons M**, Greene A, Polakovic S, Rohrs E, Byram I, Cheung E, Jones R, Papandrea R, Youderian A, Wright T, Flurin PH, Zuckerman J: Intersurgeon and intrasurgeon variability in preoperative planning of anatomic total shoulder arthroplasty: a quantitative comparison of 49 cases planned by 9 surgeons. *J Shoulder Elbow Surg*. 2020 Dec;29(12):2610-2618.
31. Schoch BS, Vigan M, Roche CP, **Parsons M**, Wright TW, King JJ, Werthel JD: Deltoid fatigue: a longitudinal assessment of reverse shoulder arthroplasty over time. *J Shoulder Elbow Surg*. 2021 Jun;30(6):1375-1383
32. Monir JG, Tams C, Wright TW, **Parsons M**, King JJ, Schoch BS Preoperative factors associated with loss of range of motion after reverse shoulder arthroplasty. *J Shoulder Elbow Surg*. 2021 Oct;30(10):e621-e628.

33. Aibinder W, Schoch B, **Parsons M**, Watling J, Ko JK, Gobbato B, Throckmorton T, Routman H, Fan W, Simmons C, Roche C: Risk factors for complications and revision surgery after anatomic and reverse total shoulder arthroplasty. .J Shoulder Elbow Surg. 2021 Nov;30(11)
34. Schoch BS, Vigan M, Roche CP, **Parsons M**, Wright TW, King JJ, Werthel JD: Deltoid fatigue part 2: a longitudinal assessment of anatomic total shoulder arthroplasty over time.; J Shoulder Elbow Surg. 2022 Feb;31(2):e37-e47.
35. Kumar V, Schoch BS, Allen C, Overman S, Teredesai A, Aibinder W, **Parsons M**, Watling J, Ko JK, Gobbato B, Throckmorton T, Routman H, Roche C. J Using machine learning to predict internal rotation after anatomic and reverse total shoulder arthroplasty. J Shoulder Elbow Surg. 2022 May;31(5)
36. Hao KA, Tams C, Nieboer MJ, King JJ, Wright TW, Simovitch RW, **Parsons M**, Schoch BS: Quantifying success after anatomic total shoulder arthroplasty: the minimal clinically important percentage of maximal possible improvement.; J Shoulder Elbow Surg. 2023 Apr;32(4):688-694.
37. Simmons CS, Roche C, Schoch BS, **Parsons M**, Aibinder WR: Surgeon confidence in planning total shoulder arthroplasty improves after consulting a clinical decision support tool.; Eur J Orthop Surg Traumatol. 2023 Aug;33(6):2385-2391.
38. Youderian AR, Greene AT, Polakovic SV, Davis NZ, **Parsons M**, Papandrea RF, Jones RB, Byram IR, Gobbato BB, Wright TW, Flurin PH, Zuckerman JD Two-year clinical outcomes and complication rates in anatomic and reverse shoulder arthroplasty implanted with Exactech GPS intraoperative navigation. .J Shoulder Elbow Surg. 2023 Dec;32(12):2519-2532.
39. Allen C, Kumar V, Elwell J, Overman S, Schoch BS, Aibinder W, **Parsons M**, Watling J, Ko JK, Gobbato B, Throckmorton T, Routman H, Roche CP: Evaluating the fairness and accuracy of machine learning-based predictions of clinical outcomes after anatomic and reverse total arthroplasty. .J Shoulder Elbow Surg. 2023 Sep 12:S1058-2746(23)
40. Nieboer MJ, Hao KA, Tams C, King JJ, Wright TW, Simovitch RW, **Parsons M**, Schoch BS: Quantifying success after reverse total **shoulder** arthroplasty: the minimal clinically important percentage of maximal possible improvement; .J Shoulder Elbow Surg. 2023 Nov;32(11):2296-2302
41. Nieboer MJ, Hao KA, Tams C, King JJ, Wright TW, **Parsons M**, Schoch BS, Simovitch R: Quantifying success after reverse total shoulder arthroplasty: the

substantial clinically important percentage of maximal possible improvement.; .J Shoulder Elbow Surg. 2023 Dec;32(12):2501-2507.

Abstracts, Proceedings and Presentations

1. **Parsons IM**: Segmental Cervical Spinal Motion: A Quantitative Video-fluoroscopic Investigation. **Orthopaedic Seminar**, Musculoskeletal Research Center, Sept. 14, 1997.
2. **Parsons IM**, Debski RE: Quantitative Investigation of Acromioclavicular Joint Biomechanics: Application of Robotic Technology. **Orthopaedic Seminar**, Musculoskeletal Research Center, April 27, 1998.
3. **Parsons IM**, Apreleva M, Fu FH, Woo S L-Y: Experimental Determination of 6-DOF Glenohumeral Joint Reaction Forces During Active Motion. **Resident and Fellow Research Day**, University of Pittsburgh, Pittsburgh, PA, May 17, 1998.
4. **Parsons IM**, Warner JJP: Latissimus Dorsi Tendon Transfer: A Comparative Analysis of Primary vs. Salvage Reconstruction of Massive Irreparable Rotator Cuff Tears. **7th International Congress on Surgery of the Shoulder**, Sydney, Australia, Oct. 6, 1998.
5. Apreleva M, **Parsons IM**, Fu FH, Warner JJP, Woo SL-Y: Glenohumeral Joint Reaction Forces During Active Motion. **Biomedical Engineering Society**, Cleveland, OH, 1998.
6. Warner JJP, **Parsons IM**: Quantification of Glenoid Wear After Hemiarthroplasty of the Shoulder. **American Shoulder and Elbow Surgeons Fifteenth Closed Meeting**, New York, NY, Dec. 1998.
7. Woo SL-Y, Apreleva M, **Parsons IM**, Fu FH, Warner JJP: Experimental Investigation of Reaction Forces at the Glenohumeral Joint During Active Motion. **American Shoulder and Elbow Surgeons, Fifteenth Closed Meeting**, New York, NY, 1998
8. Warner JJP, **Parsons IM**: Salvage Reconstruction of Failed Rotator Cuff Repairs by Latissimus Dorsi Transfer. **American Shoulder and Elbow Surgeons Fifteenth Open Meeting**, Anaheim, CA, Feb. 1999.
9. **Parsons IM**, Warner JJP: "Quantification of Radiographic Glenoid Wear After Shoulder Hemiarthroplasty," **American Shoulder and Elbow Surgeons Fifteenth Open Meeting**, Anaheim, CA, Feb. 1999.
10. **Parsons IM**, Debski RE, Fu FH, Woo SL-Y: The Effect of Capsular Injury on Acromioclavicular Joint Mechanics. **Transactions of the Orthopaedic Research Society**, Vol. 38, Anaheim, CA, Feb. 1999.

11. Debski RE, **Parsons IM**, Fu FH, Woo SL-Y: Ligament Mechanics During 3-DOF Motion at the Acromioclavicular Joint. **Transactions of the Orthopaedic Research Society**, Vol. 38, Anaheim, CA, Feb. 1999.
12. **Parsons IM**, Apreleva M, Fu FH, Woo SL-Y: Effect of Rotator Cuff Tears on Glenohumeral Joint Reaction Forces during Active Abduction. **Transactions of the Orthopaedic Research Society**, Vol. 38, Anaheim, CA, Feb. 1999.
1. Apreleva M, **Parsons IM**, Fu FH, Woo S L-Y: A Dynamic Analysis of Glenohumeral Joint Reaction Forces During Active Motion. **Proceedings of the Biomedical Engineering Society**, Annual Fall Meeting, Vancouver, British Columbia, June, 1999.
2. **Parsons IM**, Warner JJP: Latissimus Dorsi Tendon Transfer: A Comparative Analysis of Primary vs. Salvage Reconstruction of Massive Irreparable Rotator Cuff Tears. **Pennsylvania Orthopaedic Society Spring Meeting**, Marco Island, FL, April 19, 1999.
13. **Parsons IM**, Warner JJP: Glenoid Wear After Shoulder Hemiarthroplasty: Correlation with Functional Outcome. **Pennsylvania Orthopaedic Society Spring Meeting**, Marco Island, FL, April 19, 1999.
14. Debski RE, **Parsons IM**, Fu FH, Woo SL-Y: The Effect of Capsular Injury on the Forces in the Coracoclavicular Ligaments. **American Society of Mechanical Engineers, BED-Vol. 38**, Big Sky, Montana, June, 1999.
15. Apreleva M, **Parsons IM**, Pfaeffle HJ, Manson TT, Fu FH, Warner JJP, Woo SL-Y: 3-D Reaction Forces at the Glenohumeral Joint During Active Motion. **American Society of Mechanical Engineers, Bioengineering Division**, Anaheim, CA, 1999
16. Debski R.E, **Parsons IM**, Fu FH, Woo SL-Y: Ligament Mechanics During 3-DOF Motion at the Acromioclavicular Joint. **Pittsburgh Orthopaedic Journal**, Volume 10, 1999: p. 115-116.
17. **Parsons IM**, Apreleva M, Fu FH, Woo SL-Y: The Effect of Rotator Cuff Tears on Glenohumeral Joint Reaction Forces During Active Abduction. **Pittsburgh Orthopaedic Journal**, Volume 10, 1999: p. 117-118.
18. **Parsons IM**, Fenwick JA, Debski RE, Fu FH, Woo SL-Y: The Effect of Capsular Injury on In Situ Forces in the Coracoclavicular Ligaments. **Pennsylvania Orthopaedic Society Spring Meeting**, Lake Buena Vista, FL, April 6, 2000.

19. **Parsons IM**, Apreleva M, Fu FH, Woo SL-Y: The Effect of Rotator Cuff Tear Configuration of Reaction Forces at the Glenohumeral Joint. **Eastern Orthopaedic Association**, Orlando, FL, October, 2000.
20. Higgins LD, Jones D, Gill T, **Parsons, IM**, Warner JJP: Reconstruction of the Proximal Humerus: Correlation of Anatomy with Outcome. **American Shoulder and Elbow Surgeons Sixteenth Open Meeting**, Orlando, FL, 2000.
21. **Parsons IM**, Apreleva M, Fu FH, Woo S L-Y: The Effect of Rotator Cuff Tears on Reaction Forces at the Glenohumeral Joint. **Resident Research Day**, University of Pittsburgh, Pittsburgh, PA, May 8, 2002.
22. McAllister W, **Parsons IM**, Matsen FA: Improvement in Comfort and Function after Rotator Cuff Repair without Acromioplasty. **American Shoulder and Elbow Surgeons Nineteenth Closed Meeting**, Palm Desert, CA, 2003.
23. Buckingham BP, **Parsons IM**, Campbell B, Titelman RM, Smith KL, Matsen FA 3rd: Patient Self-assessment as an Indicator of Delayed Failure after Total Shoulder Arthroplasty. **9th International Congress on Surgery of the Shoulder**, Washington DC, May, 2004.
24. **Parsons IM**, O'Brien RJ, Hughes JS: Distal Humerus Hemiarthroplasty for Acute and Salvage Reconstruction of Complex Distal Humerus Fractures. **Maine Orthopaedic Trauma Society Annual Meeting**, Sugarloaf, ME, February 28, 2004
25. **Parsons IM**, Hughes JS: Locked Intramedullary Nailing of Displaced Unstable Proximal Humerus Fractures. **New England Orthopaedic Society Spring Meeting**, Bretton Woods, NH, June 5, 2004.
26. **Parsons IM**, Matsen F: A Canine Model of Non-Prosthetic Glenoid Arthroplasty with Humeral Hemi-Arthroplasty. **American Academy of Orthopaedic Surgeons 72nd Annual Meeting**, Washington, DC, February 25, 2005.
27. **Parsons M**: "Shoulder Hemiarthroplasty with Non-Prosthetic Glenoid Arthroplasty", New England Shoulder and Elbow Surgeons Annual Meeting, Jay Peak, Vermont, February 3, 2007.
28. **Parsons M**: "Point Counterpoint: Management of the Young Patient with Shoulder Arthritis: Ream and Run versus Total Shoulder Arthroplasty," New England Shoulder and Elbow Surgeon Annual Meeting, Jay Peak, Vermont, February 6, 2008
29. **Parsons M**: "Proximal Humerus Fractures: Decision Making, Tips and Tricks," Maine Orthopedic Society Annual Meeting, Sugarloaf, ME, January 21st, 2009

30. **Parsons M:** "Point Counterpoint: Management of the Frozen Shoulder with Concomitant Rotator Cuff Tear," New England Shoulder and Elbow Surgeon Annual Meeting, Jay Peak, VT February 8, 2009
31. **Parsons M:** How to Achieve Range of Motion after Total Shoulder Arthroplasty," New England Shoulder and Elbow Surgeon Annual Meeting, Jay Peak, VT, February 10, 2010
32. **Parsons M:** "Blood Management in Total Joint Arthroplasty, Reducing Transfusions to Zero," New Hampshire Musculoskeletal Institute Annual Meeting, Stowe, VT, January 23, 2015
33. **Parsons M:** "Controversies in Rotator Cuff Tear Management," New England Shoulder and Elbow Surgeons Annual Meeting, Jay, VT February 7, 2015
34. **Parsons M:** "The Difficult Glenoid, How to Manage Bone Loss in Primary Shoulder Arthroplasty," Maine Orthopedic Society Annual Meeting, Sugarloaf, VT March 14, 2015
35. **Parsons M:** "Glenoid Exposure: Master's Techniques," Maine Orthopedic Society Annual Meeting, Sugarloaf, VT March 14, 2015
36. **Parsons M:** "Biomechanics of Reverse Shoulder Arthroplasty," Maine Orthopedic Society Annual Meeting, Sugarloaf, VT March 15, 2015
37. Grey SG, Greene AT, Hamilton MA, Polakovic SV, Jones RB, Wright TW, **Parsons IM**, Saadi PD, Cheung EV: Novel Cadaveric Validation of a Computer Navigated Shoulder Surgery System. **British Elbow and Shoulder Society Annual Meeting**, Dublin IR, June 2016.
38. Greene AT, Hamilton MA, Polakovic SV, Jones RB, Wright TW, **Parsons IM**, Saadi PD, Cheung EV: The Influence of Preoperative Planning and Augmented Glenoid Implants in Correcting Version in Primary Total Shoulder Arthroplasty. **Orthopaedic Research Society** Annual Meeting, Orlando, FL, March 2016.
39. Greene AT, Hamilton MA, Polakovic SV, Jones RB, Wright TW, **Parsons IM**, Saadi PD, Cheung EV: Novel CT Based Cadaveric Validation of the Accuracy of a Computer Navigated Surgery System. **International Society for Technology in Arthroplasty** Annual Meeting, Boston, MA, June 2016.
40. Friedman RJ, **Parsons IM**, Routman HD, Roche C: Clinical Factors Associated with Greater Improvement in Outcomes Following Primary Reverse Total Shoulder Arthroplasty. American Academy of Orthopaedic Surgeons 2018 Annual Meeting.

41. Routman HD, **Parsons IM**, Friedman RJ, Roche C: Reverse Total Shoulder Arthroplasty Restores Active External Rotation and Correlates with Improved Overall Outcomes. American Academy of Orthopaedic Surgeons 2018 Annual Meeting
42. **Parsons M**, Greene A, et al: Assessment of Intra-articular Loads During rTSA to Objectivate Shoulder Stability, International Society for Technology in Arthroplasty Annual Congress, Toronto, ON 2019
43. Flurin PH, Greene A, **Parsons M**, et al: Accuracy and Precision of the Use of Navigation in Shoulder Arthroplasty, International Congress on Shoulder and Elbow Surgery, Buenos Aires, Argentina, 2019
- 44.
45. Greene A, **Parsons M**, et al: Clinical Use of a Wireless Load Sensing Humeral Liner Trial in Reverse Total Shoulder Arthroplasty: Reported Load Differences Between 38 and 42mm Liner Sizes, International Society for Technology In Arthroplasty Emerging Technologies in Arthroplasty Congress (Virtual), 2021
46. Greene A, **Parsons M**, et al: Clinical Use of a Novel Load Sensing Humeral Liner Trial for Reverse Total Shoulder Arthroplasty, Orthopaedic Research Society Annual Meeting, Long Beach , CA, 2021
47. Smith M, **Parsons M**, Greene A, et al: 2-year Clinical Results of Anatomic and Reverse Total Shoulder Arthroplasty Performed with a Computer Navigated Surgery System, British Elbow and Shoulder Society Annual Meeting, Liverpool, UK, 2022
48. Greene A, **Parsons M**, Smith M, et al: 2-year Clinical Outcomes of Total Shoulder Arthroplasty Performed with a Computer Navigated Surgery System, International Society for Computer Assisted Orthopaedic Surgery Annual Meeting, Brest, FR, 2022
49. Jones R, **Parsons M**, Greene A, et al: Computer Navigated Anatomic Total Shoulder Arthroplasty: Two year Clinical Results. European Society for Surgery of the Shoulder and Elbow, Dublin, IR, 2022
50. Jones R, **Parsons M**, Greene A et al: Computer Navigated Reverse Total Shoulder Arthroplasty: Two Year Clinical Results. American Shoulder and Elbow Surgeons Specialty Day, Las Vegas, NV 2023

Scientific Exhibits & Posters

1. **Parsons IM**, Debski RE, Fu FH, Woo SL-Y: The Effect of Capsular Injury on Acromioclavicular Joint Mechanics. **The 45th Annual Meeting of the Orthopaedic Research Society**, Poster, Anaheim, CA, Feb. 1999.

2. Debski RE, **Parsons IM**, Fu FH, Woo SL-Y: Ligament Mechanics During 3-DOF Motion at the Acromioclavicular Joint. **The 45th Annual Meeting of the Orthopaedic Research Society**, Poster, Anaheim, CA, Feb. 1999.
3. **Parsons IM**, Apreleva M, Fu FH, Woo SL-Y: Effect of Rotator Cuff Tears on Glenohumeral Joint Reaction Forces during Active Abduction. **The 46th Annual Meeting of the Orthopaedic Research Society**, Poster, Anaheim, CA, Feb. 1999.
4. **Parsons IM**, Gibbs KG, Titelman RM, Norman A, Sidles JL, Clark JC, Matsen FA 3rd: A Histomorphometric Analysis of Non-prosthetic Glenoid Arthroplasty in a Lapine Model. **The 51st Annual Meeting of the Orthopaedic Research Society**, Poster (accepted), San Francisco, CA, Mar. 2003.
5. McCallister W, **Parsons IM**, Titelman R, Matsen FA 3rd: Open Rotator Cuff Tear without Acromioplasty: a Two to Ten Year Follow-up. **9th International Congress on Surgery of the Shoulder**, Poster, Washington, DC, May 2004.
6. Titelman RM, Gibbs K, **Parsons IM**, Matsen FA 3rd: Nonprosthetic Glenoid Arthroplasty in a Canine Model. **9th International Congress on Surgery of the Shoulder**, Poster, Washington, DC, May 2004.
7. Titelman RM, **Parsons IM**: Healing of Reamed Glenoid Bone Articulating with a Metal Humeral Hemiarthroplasty: A Canine Model. **American Academy of Orthopaedic Surgeons 72nd Annual Meeting**, Poster, Washington, DC, February 2005
8. Greene AT, Jones RB, Hamilton MA, Polakovic SV, Andrews RE, Flurin PH, **Parsons IM**, Saadi PD, Cheung EV: Accuracy of Glenoid Version and Inclination Determination using Computer Navigated versus Non Navigated Shoulder Arthroplasty Techniques. **Orthopaedic Research Society 84rd Annual Meeting**, San Diego, CA 2017
9. **Parsons M**, Elwell J, Muh S, Wright T, Flurin P-H, Zuckerman JD, Roche C: Correlation of Subjective and Objective Measure in Shoulder Arthroplasty; **International Congress on Shoulder and Elbow Surgery**, Rome Italy, September 2023

Review Articles

1. Woo SL-Y, Suh J-K, **Parsons IM**, Wang J-H, Watanabe N: Biologic intervention in ligament healing: Effect of growth factors. *Sports Medicine and Arthroscopy Review* 6(2): 74-82, 1998.

2. Dirksmeier PJ, Kang JD, **Parsons IM**: Microendoscopic and open laminotomy and discectomy in lumbar disc disease. *Seminars in Spine Surgery* 11(2): 1-10, 1999 June.
3. Dirksmeier PJ, **Parsons IM**, Kang JD: The diagnosis and treatment of lumbar disc disease. *Pittsburgh Orthopaedic Journal* Vol.11: 145-152, 2000.
4. **Parsons IM**, Sonnabend DH: What is the role of joint replacement surgery? *Best Practice Research in Clinical Rheumatology*, 18(4), 557-72004.
5. **Parsons, IM**, Weldon EJ, Titelman RM, Smith KL: Glenohumeral arthritis and its management. *Physical Medicine and Rehabilitation Clinics of North America* 15(2) 447-74, 2004.
6. **Parsons IM**: The arthritis epidemic and the benefits of exercise. *Granite Sports Magazine*, Fall 2004.
7. **Parsons IM**, Webb GR: Cartilage injuries – Fix or replace. *Granite Sports Magazine*, May/June 2005.
8. **Parsons IM**, Weldon EJ, Matsen FA: Spherical glenoid reaming with humeral hemiarthroplasty: a non-prosthetic orthobiologic approach to shoulder arthroplasty. *Techniques in Orthopedics*, 22(1):62-70, March 2007
9. **Parsons IM**: Boomers redefine value in joint replacement. *Business NH Magazine Healthcare Handbook*, April 2011
10. Matsen FA 3rd, Carofino BC, Green A, Hasan SS, Hsu JE, Lazarus MD, McElvany MD, Moskal MJ, **Parsons IM 4th**, Saltzman MD, Warme WJ: Shoulder Hemiarthroplasty with Nonprosthetic Glenoid Arthroplasty: The Ream-and-Run Procedure. *JBJS Rev.* 2021 Aug 25;9(8).

Book Chapters

1. Codd TP, **Parsons IM**: Humerus-based capsular shift for posterior glenohumeral instability. In **An Atlas of Shoulder Surgery**, Fu FH, Ticker JB, Imhoff AB, (eds), Martin Dunitz Ltd., London (1998), pp. 39-46.
2. **Parsons IM**, Kang JD: Mechanisms of failure after anterior cervical disk surgery. In **Current Opinion in Orthopaedics**, Lippincott-Raven publishers (1998), pp. 2-11.
3. **Parsons IM**, Kang JD: Lumbar degenerative disorders. In **Orthopaedic Knowledge Update 6**, Beaty JH, (ed), American Academy of Orthopaedic Surgeons, Rosemount, IL (1999) pp. 685-690.

4. **Parsons IM**, Smith KL, Matsen FA: Effectiveness Evaluation and the shoulder. In **The Shoulder**, Rockwood CA, Matsen FA (eds), W.B. Saunders Company (2004)
5. **Parsons IM**, Wirth MA, Rockwood CA, Matsen FA: Glenohumeral arthritis and its management. In **The Shoulder**, Rockwood CA, Matsen FA (eds), W.B. Saunders Company (2004).
6. Titelman RM, **Parsons IM**, Smith KL: Shoulder arthroplasty. In **Hand Surgery Update**, Trumble T (ed), American Society for Surgery of the Hand, 2004.
7. Hughes JS, **Parsons IM**: Distal humeral hemiarthroplasty. In **Advanced Reconstruction Elbow**, Yamaguchi K, King GW, McKee MD, O'Driscoll, SWM (eds), American Academy of Orthopedic Surgeons, 2007.
8. **Parsons IM**: Humeral hemiarthroplasty with spherical glenoid reaming: theory and technique of the "Ream and Run" procedure. In **Arthroplasty**, Intech , January 2012
9. **Parsons IM**: Optimization of Tuberosity Healing in Prosthetic Reconstruction of Proximal Humerus Fractures. In **Arthroplasty Update**, Intech, February 2013
10. **Parsons M**, Routman HD, Levy J, Codsì M, Chuinard C, Sanchez-Sotelo J: Physical Examination and Proper Imaging Modalities in Reverse Shoulder Arthroplasty: A Comprehensive Case-Based Approach, J Abboud (ed), Slack, 2019
11. **Parsons M**: Shoulder Hemiarthroplasty for Treatment of Glenohumeral Arthritis in Shoulder Arthroplasty Principles and Practice, JD Zuckerman, MD (ed); Wolters Kluwer, 2021
12. **Parsons M**, Papandrea R, Greene A: Preoperative Planning and Plan Execution in Shoulder Arthroplasty, in Shoulder Arthritis Across the Lifespan, A Mazzocca, E Calvo and G Di Giacomo (eds); Springer Link, 2023

Lectures

1. "Ream and Run: The Principles and Technique of Non-prosthetic Glenoid Arthroplasty." Postgraduate Seminar, Royal North Shore Hospital, Sydney, NSW, Australia, Aug. 24th, 2003.
2. "Total Shoulder Arthroplasty In-Service," Northern Clinical School of Health Science, Royal North Hospital, Sydney Australia, Oct. 18, 2003.
3. "Common Causes of Shoulder Pain," Community Education Series, Frisbie Memorial Hospital, Rochester, NH, Feb 19, 2004.

4. "Aging and the Musculoskeletal System," Community Education Series, Wentworth Douglass Hospital, Dover, NH, Feb 25, 2004
5. "Current Concepts in the Treatment of Common Shoulder Conditions," Continuing Medical Education Series, Wentworth Douglass Hospital, June 29, 2004
6. "The Spectrum of Rotator Cuff Pathology," Continuing Medical Education Series, Rehab 3, Marshbrook Professional Center, Somersworth, NH, June 24, 2004
7. "Shoulder Instability: From Pathomechanics to Rehabilitation," Continuing Medical Education Series, Rehab 3, Marshbrook Professional Center, Somersworth, NH, July 14, 2004
8. "Repetitive Strain Injuries", Community Education Series, Wentworth Douglass Hospital, Dover, NH, Nov 18, 2004.
9. "Osteoarthritis", Community Education Series, Frisbie Memorial Hospital, Rochester, NH, Dec 2, 2004.
10. "Lateral Epicondylitis", New Hampshire American Physical Therapy Association, Concord, NH, February 17, 2005
11. "Current Concepts in Joint Replacement Surgery," In service, Sunbridge Rehabilitation Center, Rochester, NH, December 12, 2005.
12. "Current Concepts: Rotator Cuff Disorders", American Physical Therapy Association, New Hampshire Chapter, Evening Lecture Series, Manchester, NH, May 18, 2006
13. "Tomorrow's Joint Replacement Today", Community Education, Series, Wentworth Douglass Hospital, Dover NH, November 20, 2006
14. "Arthritis: What is it? What's new?" Communication Education Series, Wentworth-Douglass Hospital, Dover, NH , May 24, 2007
15. "Shoulder Biomechanics", University of New Hampshire Athletic Trainers Course, Durham, NH, April, 2007
16. "Current Concepts: Rotator Cuff Disorders", American Physical Therapy Association, New Hampshire Chapter, Evening Lecture Series, Manchester, NH, June 7, 2007
17. "The Spectrum of Cuff Pathology: Impingement to Arthritis". Grand Rounds, Wentworth Douglass Hospital, Dover, NH, December 14, 2007
18. "Arthritis Management: Soup to Nuts," Community Education Series, Wentworth Douglas Hospital, Dover, NH, May 12th, 2008

19. "Ambulatory Shoulder Pain: Assessment and Treatment: What You Need to Know: How to Stay out of Trouble," Grand Rounds, Wentworth Douglass Hospital, October 23, 2008
20. "SLAP Lesions and Biceps Pathology", University of New Hampshire Athletic Trainers Course, Durham, NH, April 14, 2009
21. "Knee Replacement: Principles for Success," Community Education Series, Frisbie Memorial Hospital, Rochester, NH, September 12th 2009.
22. "Total Shoulder Arthroplasty: Resurfacing to Reverse," In Service, Rehab 3 Physical Therapy Service, Marshbrook Professional Center, Somersworth, NH, April 5th, 2010.
23. "Current Concepts and Best Practices in Hip and Knee Replacement," Community Education Series, Frisbie Memorial Hospital, Rochester, NH, November 2, 2010.
24. "Advancements in Knee Arthritis Treatment," Community Education Series, Frisbie Memorial Hospital, Rochester, NH, November 8th, 2011.
25. "The User's Guide to Management of Arthritis," Community Education Series, Wentworth Douglass Hospital, Dover, NH, March 16, 2012.
26. "Direct Anterior Total Hip Arthroplasty," Community Education Series, Wentworth Douglass Hospital, Dover, NH, March 25, 2013
27. "Modern Management of Hip and Knee Arthritis," Community Education Lecture, Wentworth Douglass Hospital, Dover, NH, March 17, 2015
28. "Conformis Custom Total Knee Arthroplasty," Community Education Lecture Series
 - i. Dover, NH: 3/8/16
 - ii. Lee, NH: 4/5/16
 - iii. Exeter, NH: 4/22/16
 - iv. Wolfeboro, NH: 5/23/16
 - v. Conway, NH: 6/11/16
 - vi. York, ME 10/15/16
 - vii. Portsmouth, NH 6/27/17
 - viii. Conway, NH 8/23/18
39. "Shoulder Problems Soup to Nuts," Community Education Lecture, Portsmouth Regional Hospital, 9/8/17

40. "How to Enhance Surgical Recovery After Total Shoulder Arthroplasty," Community Education Lecture, Conway, NH 10/12/17.
41. "Rapid Recovery Total and Reverse Shoulder Replacement," Community Education Lecture, Somersworth, NH, 1/14/18.

Consulting Relationships and Other Work

- Design of a Reverse Prosthesis, Synthes Upper Extremity Division, Paoli, PA (June 2010 – January 2013)
- Cuff Sparing Total Shoulder Arthroplasty, Exactech Equinox Shoulder Design Team, Gainesville, FL (June 2013-November 2014)
- Development of Shoulder Surgical Navigation Tool, Exactech Equinox Shoulder Design Team, Gainesville, FL (November 2014-November 2023)
- Development of force/motion sensory for reverse total shoulder replacement, Orthosensor, Dania Beach, FL (June 2017-June 2019)
- Development of an Augmented Reality Shoulder Navigation Interface, On-Point Shoulder, Burlington, MA June 2017-present)
- Development of Goldilocks Reverse Shoulder Arthroplasty Force Sensor, Stratera Medical, Montreal QC, 2021-present

Videos

- Total Shoulder Arthroplasty with the Synthes EPOCA Prosthesis, OR Live Surgical Webcast, Wentworth Doulgass Hospital, Dover, NH, April 15th, 2010.

Blogs

- The Joint Replacement Monitor: <http://jointreplacementmonitor.blogspot.com/> (2013-2020)

Grants

Awarded

1. Young Investigator Grant, American Shoulder and Elbow Surgeons, "Quantitative Analysis of Acromioclavicular Joint Biomechanics." 1998-1999, Co-Principal Investigator (with Richard E. Debski, Ph.D.), \$20,000.
2. American Shoulder and Elbow Surgeons Research Grant, "Periosteal Arthroplasty of the Reamed Glenoid Surface: A Morphological and Histological Analysis in a Rabbit Model of Non-prosthetic Arthroplasty." 2003-2004, Co-Principal Investigator (with Kevin L. Smith, MD), \$10,000.

Submitted but not awarded

1. OREF Research Grant, "Adenovirus-mediated TGF- β Expression Enhances Chondrogenesis after Glenoid Reaming in a Rabbit Model." 2002, Principal Investigator, \$38,000

2. NIH Grant, "Molded Healing of the Reamed Glenoid." 2002, Co-investigator. Principal investigator Frederick A. Matsen, III, MD, \$500,000.

Other Professional Activities

Team Physician

Keystone Oaks High School

1997-1998

Pittsburgh, PA

Team Physician

Woodland Hills High School

1998-1999 Pittsburgh, PA

Team Physician

University of New Hampshire

2004-present

Durham, NH

Peer Reviewer, *Clinical Orthopaedics & Related Research*, *Current Opinion in Orthopaedics*, *Journal of Arthroplasty*, *Journal of Shoulder and Elbow Surgery*