

**Curriculum Vitae**

**June, 2018**

**Joel A. Bauman, M.D.**

**Employment:**

8/14 – Hartford HealthCare Medical Group  
85 Seymour Street, Suite 1003  
Hartford, CT 06106

8/13 – 7/14 Connecticut Neuroscience, P.C.  
230 George Street  
New Haven, CT 06510

**Hospital Privileges:**

Midstate Medical Center, Meriden, CT  
Hartford Hospital, Hartford, CT

**Academic Affiliation:**

Clinical Adjunct Faculty  
Frank Netter School of Medicine  
Quinnipiac University, North Haven, CT

**Postgraduate Training:**

8/12 – 7/13 Spine Fellow, Neurosurgery, New England Baptist Hospital  
7/11 – 6/12 Chief Resident, Neurosurgery, University of Pennsylvania  
7/06 – 6/11 Resident, Neurosurgery, University of Pennsylvania  
6/05 – 6/06 Intern, Surgery, University of Pennsylvania

**Education:**

8/00 – 5/05 M.D. New York University  
8/96 – 6/00 B.A. Harvard University

**Licensure:**

Connecticut

**Board Status:**

ABNS Certified, 2018

**Awards, Honors, and Membership in Honorary Societies:**

2009 NREF Research Fellow  
2005 Alpha Omega Alpha  
1999 John Harvard Scholarship

**Memberships in Professional and Scientific Societies:**

Congress of Neurological Surgeons (2014-)

Spine Section, AANS / CNS (2016-)

**Committees and Clinical Leadership:**

Hartford Hospital Spine Council, Neurosurgery Clinical Lead (2014-)

Hartford HealthCare NeuroSpine Council, Clinical Lead (2017-)

Hartford Hospital Neurosurgery Trauma Liaison (2014-)

Hartford HealthCare Ambulatory Care Clinical Advisory Board, Member (2016-)

**Invited Presentations:**

1. Surgical Approaches to Peripheral Nerve Injuries. Hartford Hospital Neurology Grand Rounds, February 25<sup>th</sup>, 2016.

2. Evaluation of Acute Brachial Plexus Injuries and Principles of Acute Repair. Hartford Hospital Trauma / Orthopedics Grand Rounds, June 4<sup>th</sup>, 2015.
3. Spinal Deformity: Neurosurgical Perspective. Yale University Department of Neurosurgery, April 16<sup>th</sup>, 2014.
4. The Costs of Spine Surgery: A Survey of Operative, Inpatient, and Implant Charges for Spinal Surgeries at NEBH 2012-2013. New England Baptist Hospital Department of Orthopedics Grand Rounds, June 19<sup>th</sup>, 2013.
5. An Integrated Experimental System to Measure Cervical Facet Joint Pressure in the Cadaver. University of Pennsylvania Department of Neurosurgery Grand Rounds, March 25<sup>th</sup>, 2010.

Grants:

1. Aesculap, Inc. Clinical Research Grant (2010-2011). Endoscopic Third Ventriculostomy for Normal Pressure Hydrocephalus: A Prospective Clinical Trial within Neurosurgical Practice.
2. Neurosurgery Research Education Fellowship (2009-2010). Motion Preservation and Dynamic Stabilization in Post-surgical Cervical Spine: Facet Joint Pressures and Kinematics in a Human Cadaveric Model.
3. T32 NRSA Training Grant (2009-2010). Surgical and Anatomical Facet Experiments in Pressure and Kinematics.

Bibliography:

Original papers:

1. Nayak N, Bauman JA, Stein SC, Thawani J, Malhotra NR. Surgical Approaches for the Treatment of Thoracic Disc Herniation: Results of a Decision Analysis. *Clinical Spine Surgery*. 2016 Mar 25. PMID: 27018910.
2. Jaumard NV, Bauman JA, Guarino B, Gokhale A, Lipschutz D, Weisshaar CL, Welch WC, Winkelstein BA. ProDisc Cervical Arthroplasty does not Alter Facet Joint Contact Pressure during Lateral Bending or Axial Torsion. *Spine (Phila Pa 1976)*. Epub 2012 Nov 5. PMID: 23132537.
3. Bauman JA, Jaumard NV, Weisshaar CL, Guarino B, Welch WC, Winkelstein BA. Facet Joint Contact Pressure is Not Significantly Affected by Pro-Disc Cervical Disc Arthroplasty in Sagittal Bending: A Single Level Cadaveric Study. *The Spine Journal*. 2012 Oct;12(10):949-59. Epub 2012 Sep 10. PMID: 22975463.
4. Lang SS, Bauman JA, Aversano MW, Sanborn MR, Vossough A, Heuer GG, Storm PB. Hyponatremia Following Endoscopic Third Ventriculostomy: A Report of Five Cases and Analysis of Risk Factors. *Journal of Neurosurgery: Pediatrics*. 2012 Jul;10(1):39-43. Epub 2012 Jun 15. PMID: 22702328.
5. Jaumard NV, Bauman JA, Weisshaar CL, Guarino B, Welch WC, Winkelstein BA. Contact Pressure in the Facet Joint During Sagittal Bending of the Cadaveric Cervical Spine. *Journal of Biomechanical Engineering*. 2011 Jul;133(7):071004. PMID: 21823743.
6. Bauman JA, Hardesty DA, Heuer GG, Storm PB. Use of Occipital Bone Graft in Pediatric Posterior Cervical Fusion: Technical Note and Review of the Literature. *Journal of Neurosurgery: Pediatrics*. 2011 May;7(5):475-81. PMID 21529187.
7. Jaumard NV, Bauman JA, Welch WC, Winkelstein BA. Pressure Measurement in the Cervical Facet Joint: Considerations for Maintaining Joint Anatomy and an Intact Capsule. *Spine (Phila Pa 1976)*. 2011 Jul 1;36(15):1197-203. PMID: 21224762.
8. Quinn KP, Bauman JA, Crosby ND, Winkelstein BA. Anomalous Fiber Realignment During Tensile Loading of the Rat Facet Capsular Ligament Identifies Mechanically-Induced Damage and Physiological Dysfunction. *Journal of Biomechanics*. 2010 43(10):1870-1875. PMID: 20381048.

9. Bauman JA, Church E, Halpern CH, Danish SF, Zaghoul KA, Jaggi JL, Stein SC, Baltuch GH: Subcutaneous Heparin for Prophylaxis of Venous Thromboembolism in Deep Brain Stimulation Surgery: Evidence from a Decision Analysis. *Neurosurgery* 65 (2):276-280, 2009. PMID: 19625905.
10. Bauman JA, Ridgway E, Devinsky O, Doyle WK: Subpectoral Implantation of the Vagus Nerve Stimulator. *Neurosurgery* 58 (4):322-326, 2006. PMID: 16582656.
11. Bauman JA, Feoli E, Romanelli P, Doyle WK, Devinsky O, Weiner HL: Multi-stage Epilepsy Surgery: Safety, Efficacy, and Utility of a Novel Approach in Pediatric Extratemporal Epilepsy. *Neurosurgery* 56 (2): 318-327, 2005. PMID: 15670380.
12. Sanderson SP, Houten J, Errico T, Forshaw D, Bauman J, Cooper PR: The Unique Characteristics of 'Upper' Lumbar Disc Herniations. *Neurosurgery* 55 (2): 385-389, 2004. PMID: 15271245.

Abstracts:

1. Bauman JA, Stein SC, Byrne M, Yuan C, Welch WC, Malhotra NR. Posterior Thoracic Discectomy is Superior to Thoracoscopic and Open Anterior Thoracotomy Approaches: Results of a Decision Analysis. *AANS/CNS Spine Section Annual Meeting 2013*.
2. Bauman JA, Jaumard NV, Weisshaar CL, Guarino BB, Lipschutz DE, Welch WC, Winkelstein BA. Facet Joint Contact Pressure in Sagittal Bending is Not Altered by ProDisc C Disc Arthroplasty: A Single Level Cadaveric Study. *AANS/CNS Spine Section Annual Meeting 2012*.
3. Bauman JA, Jaumard NV, Weisshaar CL, Guarino BB, Welch WC, Winkelstein BA. Contact Pressure in the Cervical Facet Joint During Physiologic Sagittal Bending of the Spine. *AANS/CNS Spine Section Annual Meeting 2011*.
4. Jaumard NV, Bauman JA, Weisshaar CL, Guarino BB, Lipschutz DE, Welch WC, Winkelstein BA. Contact Pressure in the Cervical Facet Joint During Physiologic Sagittal Bending Following ProDisc-C Implantation. *Philadelphia Spine Research Symposium 2010*.
5. Heuer GG, Bauman JA, Aversano MW, Sanborn MR, Vossough A, Sutton LN, Storm PB. Hyponatremia Following Endoscopic Third Ventriculostomy: A Report of Five Cases and Analysis of Risk Factors. *AANS/CNS Pediatric Section Annual Meeting 2010*.
6. Jaumard NV, Bauman JA, Welch WC, Winkelstein BA. Contact Pressure in the Cervical Facet Joint During Sagittal Bending: Quantitation of Pressure Magnitudes and Locations. *World Congress of Biomechanics 2010*.
7. Jaumard NV, Bauman JA, Welch WC, Winkelstein BA. Biomechanical Comparison of Contact Pressure in the Cervical Facet Joint During Bending Using a Probe and Pressure-Sensitive Paper. *ASME 2010 Summer Bioengineering Conference*.
8. Bauman JA, Madsen P, Hamilton R, Patel S, Basil A, Jacson EM, Lee EB, Lopinto J, Arnold SE, Clark CM, Shaw LM, Trojanowski JQ, Grady MS. Cortical Biopsy and Empirical Post-operative Shunt Programming: A Novel Approach to Idiopathic Normal Pressure Hydrocephalus. Plenary presentation, *AANS Annual Meeting 2010*.
9. Hardesty D, Bauman JA, Heuer GG, Storm PB. Use of Autologous Occipital Bone Graft in Pediatric Cervical Spine Fusion. Oral presentation, *AANS/CNS Pediatric Section Annual Meeting 2009*.
10. Heuer GG, McLaughlin E, Bauman JA, Malhotra NR, Schuster JM, Storm PB. Minimally Invasive Placement of Pedicle Screws in Adolescent Patients Using a Neuronavigation Platform. *AANS/CNS Pediatric Section Annual Meeting 2009*.
11. Bauman JA, Winkelstein BA, Udupa JK, Hilibrand AS, Schuster JM, Siegler S, Hirsch BE, Borthakur A, Melhem ER. Defining Volumetric and Orientation Tropisms in Cervical Facet Joints Using High-Resolution Kinematic MRI. *Cervical Spine Research Society Annual Meeting 2009*.
12. Bauman JA, Heuer GG, Storm PB. Surgical Management of Pediatric Low Grade Brainstem Astrocytomas. *Pennsylvania Neurosurgical Society Annual Meeting 2009*.

13. Bauman JA, Weisshaar CL, Davis MB, Craig KM, Schuster JM, Winkelstein BA. An Integrated Experimental System to Measure Cervical Facet Joint Pressure in the Cadaver. Oral presentation, *Global Spine Congress 2009*.
14. Bauman JA, Halpern C, Church E, Zaghoul K, Danish S, Jaggi J, Baltuch GH: Subcutaneous Heparin for Prophylaxis of Deep Venous Thrombosis in Deep Brain Stimulation Surgery. Oral presentation, *Stereotactic Functional Neurosurgery Annual Meeting 2008*.
15. Stiefel MF, Udoetuk JD, Bauman JA, Heuer GG, Levine JM, Kofke A, Collinson R, Zager EL, Grady MS, LeRoux PD, Weigele JB, Hurst RW. Endovascular Treatment of Cerebral Vasospasm: a Comparison of the Effects of Intra-arterial Nicardipine and Intra-arterial Papaverine on Cerebral Circulation Time. *CNS Annual Meeting 2007*.
16. Stiefel MF, Heuer GG, Basil AK, Bauman JA, Collinson R, Weigele JB, Sutton LN, Hurst RW, Storm PB. Endovascular and Surgical Treatment of Ruptured Cerebral Aneurysms in Pediatric Patients. *CNS Annual Meeting 2007*.
17. Bauman JA, Heuer GG, Stiefel MF, Jaggi JL, Baltuch GB: Safety of Preoperative Subcutaneous Heparin Therapy in Deep Brain Stimulation Surgery. *CNS Annual Meeting 2006*.
18. Bauman JA, Devinsky O, Doyle WK: Sub-pectoral Implantation of Vagus Nerve Stimulator. *Epilepsia* 45 (S7):327, 2004.

Book chapters:

1. Sutton LN, Bauman JA, Macyszyn LJ. Spinal Dysraphism and Tethered Spinal Cord. In: *Principles of Neurosurgery*. 3<sup>rd</sup> edition. Ellenbogen RG and Abdulrauf SI (eds). New York: Elsevier-Saunders, 2012.
2. Bauman JA, Welch WC, Schwartz DL, Sutton LN. Congenital Anomalies of the Spinal Cord. In: *Rothman-Simeone: The Spine*. 6<sup>th</sup> edition. Herkowitz HN, Garfin SR, Eismont FJ, Bell GR, et al. (eds). New York: Elsevier-Saunders, 2011.
3. Bauman JA, Cheng BC, Welch WC. Nucleoplasty and Dynamic Stabilization Techniques. In: *Youmans Neurological Surgery*: 6<sup>th</sup> edition. Winn HR (ed). New York: Elsevier, 2011.
4. Smith ML, Bauman JA, Grady MS. Neurosurgery. In: *Schwartz's Principles of Surgery*: 9<sup>th</sup> edition. Brunnicardi FC (ed). New York: McGraw-Hill, 2009.
5. Lee JYK, Bauman JA. Radiosurgery for Movement Disorders. In: *Intracranial Stereotactic Radiosurgery*. Lunsford LD, Sheehan J (eds). New York: Thieme, 2009.
6. Heuer GG, Bauman JA, Storm PB, Baltuch, GH. Invasive EEG Studies: PEG, Strip, and Grid Implantation. In: *Operative Techniques in Epilepsy Surgery*: First Edition. Baltuch GH, Vellemure JG (eds). New York: Thieme, 2008.