

*Curriculum Vitae*  
**Scott D. Daffner, M.D.**

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**Education**

1995	B.A.	Northwestern University Evanston, Illinois
1996	M.A	Boston University School of Medicine Boston, Massachusetts
2001	M.D.	Jefferson Medical College Thomas Jefferson University Philadelphia, Pennsylvania

**Postgraduate Education**

2001 – 2002	Clinical Research Fellowship Department of Orthopaedic Surgery Thomas Jefferson University Hospital and the Rothman Institute Philadelphia, Pennsylvania
2002 – 2007	Residency in Orthopaedic Surgery Thomas Jefferson University Hospital Philadelphia, Pennsylvania
2007 – 2008	Fellowship in Spinal Surgery UCLA Comprehensive Spine Center David Geffen UCLA School of Medicine Los Angeles, California

**Board Certification**

Board Eligible	ABOS Part I: Passed July 9, 2007
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**Medical Licensure**

Pennsylvania	2005 – present (active)
California	2007 – present (active)
West Virginia	2008 – present (active)

**Academic Appointments**

2007 – 2008	Clinical Instructor Department of Orthopaedic Surgery David Geffen UCLA School of Medicine Los Angeles, California
2008 – Present	Assistant Professor Department of Orthopaedics West Virginia University School of Medicine Morgantown, WV

## **Honors and Awards**

Hobart Amory Hare Honor Medical Society (1999; Jefferson Medical College)

Honors in fourth year clinical rotations in Orthopaedic Surgery (2000; Jefferson Medical College)

Alpha Epsilon Lambda Honor Society (1996; Boston University)

National Saturn® Award for Community Service and Teamwork (1993; Northwestern University)

Eagle Scout (1987)

## **Publications**

### **Journal Articles, Peer Reviewed**

Daffner RH, **Daffner SD**. Vertebral injuries - detection and implications. *Eur J Radiol* 2002;42:100-116.

**Daffner SD**, Vaccaro AR. Managing disorders of the cervicothoracic junction. *Am J Orthop* 2002;31:323-327.

**Daffner SD**, Daffner RH. Computed tomography diagnosis of facet dislocations: the “hamburger bun” and “reverse hamburger bun” signs. *J Emerg Med* 2002;23:387-394.

Silber JS, Anderson DG, **Daffner SD**, Brislin BT, Leland JM, Hilibrand AS, Vaccaro AR, Albert TJ. Donor site morbidity after anterior iliac crest bone harvest for single-level anterior cervical discectomy and fusion. *Spine* 2003;28:134-139.

**Daffner SD**, Vaccaro AR. Adult degenerative lumbar scoliosis. *Am J Orthop* 2003;32:77-82.

**Daffner SD**, Vaccaro AR, Katsos MS, Grauer JN. Advances in operative stabilization for unstable cervical spine injuries: implications for early mobilization and rehabilitation. *Top Spinal Cord Inj Rehab* 2003;9:1-13.

**Daffner SD**, Hilibrand AS, Hanscom BS, Brislin BT, Vaccaro AR, Albert TJ. Impact of neck and arm pain on overall health status. *Spine* 2003;28:2030-2035.

Kwon BK, Berta SC, **Daffner SD**, Vaccaro AR, Hilibrand AS, Grauer JN, Beiner J, Albert TJ. Radiographic analysis of transforaminal lumbar interbody fusion for the treatment of adult isthmic spondylolisthesis. *J Spinal Disord Tech* 2003;16:469-476.

Anderson DG, Voets C, Ropiak R, Betcher J, Silber JS, **Daffner S**, Cotler JM, Vaccaro AR. Analysis of patient variables affecting neurologic outcome after traumatic cervical facet dislocation. *Spine J* 2004;4:506-512.

Hilibrand AS, Balasubramanian K, Eichenbaum M, Thinnes JH, **Daffner S**, Berta S, Albert TJ, Vaccaro AR, Siegler S. The effect of anterior cervical fusion upon neck motion. *Spine* 2006; 31:1688-92.

**Daffner SD**, Cipolle MD, Phillips TG. Fracture of the humeral neck with intrathoracic dislocation of the humeral head. *J Emerg Med. In Press.*

Tsou PM, **Daffner SD**, Wang JC, Khoo LT, Holly L, Shamie AN. A comprehensive subaxial cervical injury severity assessment model using numeric scores. *J Neurosurg Spine. Manuscript Submitted.*

Tsou PM, **Daffner SD**, Wang JC, Khoo LT, Holly L, Shamie AN. Predictive value of subaxial cervical spine injury severity numeric score for surgical intervention. *J Neurosurg Spine*. *Manuscript Submitted*.

**Daffner SD**, Wang JC. Revision XLIF: surgical technique and case discussion. *J Spinal Disord Tech*. *Manuscript Submitted*.

#### Journal Articles, Non-Peer Reviewed

**Daffner SD**, Vaccaro AR, Hilibrand AS, Albert TJ, Cotler JM. Management of disorders of the cervicothoracic junction. *Jefferson Orthop J* 2000;29:25-28.

**Daffner SD**, Vaccaro AR, Albert TJ, Hilibrand AS, Cotler JM. Degenerative lumbar scoliosis. *Jefferson Orthop J* 2000;29:36-39.

Westerlund LE, **Daffner SD**, Vaccaro AR. Internal fixation for cervical trauma. *Sem Spine Surg* 2002;14:265-277.

Villarraga ML, Cripton PA, Turner JL, Boatwright JR, Vaccaro AR, Hilibrand AS, Albert TJ, **Daffner SD**. Improvement of spine implant performance through retrieval analysis: preliminary results. *Jefferson Orthop J* 2002;30:106.

Kwon BK, Berta SC, **Daffner SD**, Vaccaro AR, Hilibrand AS, Grauer JN, Beiner J, Albert TJ. Radiographic analysis of transforaminal lumbar interbody fusion for the treatment of adult isthmic spondylolisthesis: a retrospective radiographic assessment. *Jefferson Orthop J* 2003;31:41-46.

**Daffner SD**, Silber JS, Hilibrand AS, Anderson DG, Vaccaro AR, Albert TJ, Riew KD. Why are spine surgery patients lost to follow-up? *Jefferson Orthop J* 2003;31:53-55.

#### Book Chapters

St. John TA, Handling MA, **Daffner SD**, Vaccaro AR. The aging lumbar spine: the pain generator. In: Vaccaro AR, Betz RA, Zeidman SM, eds. *Principles and Practice of Spine Surgery*. Philadelphia: Mosby. 81-96. 2003.

Albert TJ, **Daffner SD**. Thoracic corpectomy. In: Vaccaro AR, Albert TJ, eds. *Spine Surgery: Tricks of the Trade*. New York: Thieme. 114-115. 2003.

Albert TJ, **Daffner SD**. Transforaminal lumbar interbody fusion. In: Vaccaro AR, Albert TJ, eds. *Spine Surgery: Tricks of the Trade*. New York: Thieme. 152-153. 2003.

Freedman MK, Vaccaro AR, **Daffner SD**, Fried G. Rehabilitation of the patient with tetraplegia and paraplegia. In: Frymoyer JW, Wiesel SW, An HS, Boden SD, Lauerman WC, Lenke LG, McLain RF, eds. *The Adult and Pediatric Spine*, 3<sup>rd</sup> ed. Philadelphia: Lippincott-Raven. 619-632. 2003.

**Daffner SD**, Vaccaro AR, Stillerman C, Westerlund LE. Trauma surgery: cervical spine. In: Benezel EC, ed. *Spine Surgery: Techniques, Complication Avoidance, and Management*, 2<sup>nd</sup> ed. Philadelphia: Elsevier. 526-543. 2004.

**Daffner SD**, Albert TJ. Surgical approaches to the thoracolumbar spine. In: Herkowitz HN, Dvorak J, Bell GR, Nordin M, Grob D, eds. *The Lumbar Spine*, 3<sup>rd</sup> ed. Philadelphia: Lippincott Williams and Wilkins. 200-218. 2004.

Daffner RH, **Daffner SD**. Vertebral Injuries: Detection and Implications. In: Cassar-Pullicino VN, Imhoff H, eds. *Spinal Trauma: An Imaging Approach*. Stuttgart: Thieme International. 81-99. 2006.

**Daffner SD**, Wang JC. Pathophysiology and nonoperative management of lumbar spinal stenosis. Instructional Course Lectures, Vol 58. American Academy of Orthopaedic Surgeons. *In Press*.

**Daffner SD**, Wang JC. Anterior cervical fusion: role of anterior plating. Instructional Course Lectures, Vol 58. American Academy of Orthopaedic Surgeons. *In Press*.

### **On-Line Publications**

Vaccaro AR, Harrop JS, **Daffner SD**, Berta SC. Acute cervical spine injuries in the athlete: diagnosis, management, and return-to-play. *Int SportsMed J*. 2003;4: www.esportsmed.com

**Daffner SD**, Westerlund LE, Vaccaro AR. Orthopaedic Knowledge Update Online. Management of thoracolumbar burst fractures. American Academy of Orthopaedic Surgeons: www.aaos.org/oko

Silber J, Berta S, **Daffner SD**, Albert TJ. Orthopedics Hyperguide: Spine. SLAK Publishing, Inc.: www.ortho.hyperguides.com

**Daffner SD**, Wang JC. Isthmic Spondylolisthesis. For: Interactive Educational Program for Spine Fellows: www.spinefellows.com

### **Abstracts**

**Daffner SD**, Auerbach J, Hilibrand AS, Vaccaro AR, Albert TJ. Maintenance of Reduction in Patients Undergoing Transforaminal Lumbar Interbody Fusion for Isthmic Spondylolisthesis. North American Spine Society 2002 (*Accepted*)

Silber JS, Anderson DG, **Daffner SD**, Brislin BT, Leland JM, Hilibrand AS, Vaccaro AR, Albert TJ. Functional Assessment of Donor Site Morbidity Following Anterior Iliac Crest Bone Harvest for Single Level Anterior Cervical Discectomy and Fusion by a Single Surgeon. North American Spine Society 2002 (*Accepted*)

Thinnes JH, Seigler S, Hilibrand AS, **Daffner SD**, Vaccaro AR, Albert TJ. The impact of anterior cervical fusion upon cervical spine range of motion and overall neck flexibility. Fourth World Congress of Biomechanics. Calgary, Alberta. August 4-9, 2002 (*Accepted*).

Schwartz DM, Li M, Vaccaro AR, Hilibrand AS, Sestokas AK, **Daffner SD**, Albert TJ. The Application of Transcranial Electric Motor-Evoked Potential Monitoring as an Early Indicator of Emerging Thoracic Spinal Cord Ischemic Injury. Eastern Orthopaedic Association 2002 (*Accepted*).

Villarraga ML, Cripton PA, Vaccaro AR, Hilibrand AS, Albert TJ, **Daffner SD**, Boatwright JR, Turner JL. Improvement of spine implant performance through analysis of retrieved implants: preliminary results. Scoliosis Research Society 2002 (*Accepted*)

Hilibrand AS, Berta S, **Daffner SD**, Vaccaro AR, Thinnes J, Albert TJ, Siegler, S. The Impact of Anterior Cervical Fusion Upon Overall Range of Motion and Neck Flexibility. Proceedings of the North American Spine Society Annual Meeting. *Spine J* 2003;3:167S-168S.

**Daffner SD**, Hymanson H, Wang JC. Cost and Utilization of Conservative Management of Lumbar Disc Herniation in Patients Undergoing Surgical Discectomy. Annual Meeting of the North American Spine Society, 2008. (*Accepted*)

**Daffner SD**, Ge P, Hymanson HJ, Wang JC. Anterior Cervical Discectomy and Fusion: What Are We Doing? Annual Meeting of the Cervical Spine Research Society, 2008. (*Accepted*)

Oji GS, **Daffner SD**, Wang JC. Cost of Nonoperative Care Prior to Lumbar Decompression Surgery. Annual Meeting of the American Academy of Orthopaedic Surgeons, 2009. (*Submitted*)

Oji GS, **Daffner SD**, Wang JC. Cost Evaluation of Perioperative Charges for Vertebroplasty and Kyphoplasty. Annual Meeting of the American Academy of Orthopaedic Surgeons, 2009. (*Submitted*)

**Daffner SD**, Ge P, Hymanson HJ, Wang JC. Anterior Cervical Discectomy & Fusion: Regional Variation and Recent Trends in Surgical Technique. Annual Meeting of the American Academy of Orthopaedic Surgeons, 2009. (*Submitted*)

**Daffner SD**, Hymanson HJ, Wang JC. Variability of Cost and Surgical Treatment of Idiopathic Scoliosis by Region and Patient Demographic. Annual Meeting of the American Academy of Orthopaedic Surgeons, 2009. (*Submitted*)

**Daffner SD**, Sheridan K, Hymanson HJ, Kong MH, Miazaki M, Wang JC. Kinematic Analysis of Adjacent Segment Motion in Lumbar Spondylolisthesis Utilizing Kinetic MRI. Annual Meeting of the American Academy of Orthopaedic Surgeons, 2009. (*Submitted*)

### **Editorship**

Blam OG, **Daffner SD**, Klein GR, eds. The Jefferson Orthopaedic Journal 2002;30.

### **Presentations**

Hobart Amory Hare Annual Clinical Pathologic Conference: “A 61 year old woman with persistent fever and a cavitary pulmonary infiltrate,” Thomas Jefferson University Department of Medicine Grand Rounds, April 27, 2000

Silber J, Anderson DG, Brislin BT, **Daffner SD**, Hilibrand AS, Vaccaro AR, Albert TJ. “Long-term assessment of iliac crest bone graft site morbidity for a one-level anterior cervical discectomy and fusion,” [poster] *Award Winner – Best Clinical Project*. Cervical Spine Research Society, November 2001.

Thinnes JH, Siegler S, Hilibrand AS, **Daffner SD**, Vaccaro AR, Albert TJ. “The impact of anterior cervical fusion upon cervical spine range of motion and overall neck flexibility.” [poster] Drexel and MCP Hahnemann Universities Research and Venture Day. Philadelphia, PA. March 2002.

“Pediatric Spinal Injuries.” Conference of the Regional Spinal Cord Injury Center of the Delaware Valley. Philadelphia, PA. March 25, 2002.

“Spinal Cord Injury Centers.” Surgical Treatment of Acute Spinal Cord Injury Study (STASCIS) Meeting. Washington, DC. April 26, 2002.

“Timing of Surgery in Acute Spinal Cord Injury.” Third Annual Boston Medical Center Spine Trauma Symposium. Boston, MA. May 23, 2002.

Silber J, Anderson DG, **Daffner SD**, Brislin BT, Hilibrand AS, Vaccaro AR, Albert TJ. “Long-term assessment of iliac crest bone graft site morbidity for a one-level anterior cervical discectomy and fusion.” Annual Meeting of the North American Spine Society. Montreal, PQ. November, 2002.

**Daffner SD**, Hilibrand AS, Vaccaro AR, Albert TJ. “Maintenance of reduction in patients undergoing transforaminal lumbar interbody fusion for isthmic spondylolisthesis: a radiographic analysis.” Annual Meeting of the North American Spine Society. Montreal, PQ. November 2002.

- Daffner SD**, Auerbach J, Hilibrand AS, Vaccaro AR, Albert TJ. “Maintenance of reduction in patients undergoing transforaminal lumbar interbody fusion for isthmic spondylolisthesis.” [poster] Annual Meeting of the Eastern Orthopaedic Society. Amelia Island, FL. October 2002.
- Daffner SD**, Schwartz DM, Li M, Vaccaro AR, Hilibrand AS, Sestokas AK, Albert TJ. “The application of transcranial electric motor-evoked potential monitoring as an early indicator of emerging thoracic spinal cord ischemic injury.” [poster] Annual Meeting of the American Academy of Orthopaedic Surgeons. New Orleans, LA. February 2003.
- “Ankylosing Spondylitis: Management of Acute Fractures.” Conference of the Regional Spinal Cord Injury Center of the Delaware Valley. Philadelphia, PA. May 5, 2003.
- Hilibrand AS, Berta S, **Daffner SD**, Vaccaro AR, Thinnes J, Albert TJ, Siegler, S. “The Impact of Anterior Cervical Fusion Upon Overall Range of Motion and Neck Flexibility.” Annual Meeting of the North American Spine Society. San Diego, CA. October 2003.
- Hilibrand AS, Siegler S, Berta S, **Daffner SD**, Balasubramanian K, Eichenbaum M, Albert TJ, Vaccaro AR. “The Effects of Cervical Spondylosis and Anterior Cervical Fusion on Neck Motion.” Annual Meeting of the Cervical Spine Research Society. Scottsdale, AZ. December 2003.
- “Fractures: What the Orthopaedic Surgeon Needs to Know.” 23<sup>rd</sup> Annual Allegheny General Hospital Conference on Emergency Radiology. Tucson, AZ. April 2, 2006.
- “Complications of Orthopaedic Instrumentation: The Good, The Bad, and The Ugly.” 23<sup>rd</sup> Annual Allegheny General Hospital Conference on Emergency Radiology. Tucson, AZ. April 6, 2006.
- “Direct to Consumer Marketing in Orthopaedic Surgery.” Grand Rounds, Department of Orthopaedic Surgery, Thomas Jefferson University Hospital. Philadelphia, PA. November 27, 2006.
- “Introduction to Musculoskeletal Imaging.” Meeting of the Jefferson Student Orthopaedic Society. Philadelphia, PA. February 27, 2007.
- “Complications of Orthopaedic Instrumentation: The Good, The Bad, and The Ugly.” 24<sup>th</sup> Annual Allegheny General Hospital Conference on Emergency Radiology. Tucson, AZ. April 15, 2007.
- “Fractures: Communicating With Your Orthopaedic Surgeon.” 24<sup>th</sup> Annual Allegheny General Hospital Conference on Emergency Radiology. Tucson, AZ. April 17, 2007.
- “STASCIS: Surgical Timing in Acute Spinal Cord Injury Study – Preliminary Findings of a Multicenter Study.” Annual Meeting of the Jefferson Orthopaedic Society. Philadelphia, PA. May 5, 2007.
- “Growth Factors and Biologics for Spinal Fusion.” Suzhou International Clinic Forum 2007. The First Affiliated Hospital of Soochow University, Suzhou, China. November 4, 2007.
- “Acute Management of Fractures in Ankylosing Spondylitis.” UCLA Interdisciplinary Spine Conference. Los Angeles, CA. March 3, 2008.
- “Kinematic Analysis of Adjacent Segment Motion in Lumbar Spondylolisthesis.” Invited Lecture, University of Medicine and Dentistry of New Jersey (UMDNJ). Newark, NJ. March 14, 2008.

“The Use of Kinetic Magnetic Resonance Imaging in the Evaluation of Spinal Pathology.”  
Visiting Professor, Grand Rounds, University of Florida Jacksonville Department of  
Orthopaedic Surgery. Jacksonville, FL. March 28, 2008.

“Kinematic Analysis of Adjacent Segment Motion in Lumbar Spondylolisthesis.” AOSpine North  
America Annual Fellows Forum. Banff, AB, Canada. April 5, 2008.

Ge PS, **Daffner SD**, Hymanson HJ, Wang, JC. “Regional variation and trends in anterior cervical  
discectomy and fusion.” [poster] UCLA School of Medicine Annual Josiah Brown Research Fair.  
July 31, 2008.

### **Current Research Projects**

Kinematic analysis of spinal segmental motion using kinetic weight bearing MRI.  
Multiple studies utilizing dynamic MRI imaging to analyze segmental motion of the  
cervical and lumbar spine in relation to various degenerative and pathologic conditions.

Cervical range of motion following anterior cervical discectomy and fusion.  
A prospective study utilizing Kinetic MRI to evaluate pre- and post-operative changes in  
range of motion of the cervical spine associated with anterior cervical discectomy and  
fusion.

Cost, complications, and geographic variation in orthopaedic surgical procedures.  
A series of investigations utilizing a commercially available searchable insurance  
database comprised of patients with orthopaedic diagnoses comparing various factors  
associated with their diagnoses and management.

Injury severity scoring of subaxial cervical spine trauma and surgical probability.  
A retrospective review of subaxial cervical spine trauma patients utilizing a novel  
classification system to determine the degree to which injury morphology, neurologic  
deficit, and post-injury spinal canal diameter predict surgical intervention.

Early vs. delayed decompression of cervical spinal injuries causing spinal cord compression.  
A multi-center randomized prospective study to help determine optimum time to  
decompression in cervical spine injuries causing cord compression.

### **Certifications**

National Institutes of Health Committee on Human Research Subjects Protection  
Institutional Review Board, Thomas Jefferson University  
Institutional Review Board, University of California Los Angeles  
Institutional Review Board, West Virginia University  
American Registry of Radiologic Technicians – Fluoroscopy Supervisor/Operator Permit

### **Professional Memberships**

Philadelphia Orthopaedic Society	2002-2007
Pennsylvania Orthopaedic Society	2002-present
North American Spine Society	2003-present
American Academy of Orthopaedic Surgeons	2005-present
AOSpine International	2008-present

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