

David Hart, MD



University Hospitals

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CURRENT POSITION:

Director, Spinal Neurosurgery Center
University Hospitals Case Medical Center

ACADEMIC AND HOSPITAL APPOINTMENTS:

09/04- present Assistant Professor, Case Western Reserve University School of Medicine
09/04- present Director, Neurosurgery Spine Department of Neurological Surgery, University Hospitals
Case Medical Center, Cleveland, Ohio

EDUCATION & TRAINING:

Education

09/93-06/97 Doctor of Medicine (M.D.), Degree with honors
University of Washington School of Medicine, Seattle, WA
09/88-06/92 Bachelor of Arts (BA), Cum Laude, Molecular Biology
Pomona College, Claremont, CA
08/84-05/88 High School graduated with highest honors
Turnwater High School, Turnwater, WA

Postgraduate Training

06/03-06/04 Clinical Instructor/Resident Supervisor
Department of Neurological Surgery, Los Angeles County Medical Center, Los Angeles, CA
07/02-06/03 Fellow in Spinal Surgery
Departments of Neurosurgery and Orthopaedics, University of Utah Medical Center, Salt Lake City, UT
01/01-06/02 Senior/Chief Resident in Neurosurgery
Department of Neurosurgery, USC University Hospital, Los Angeles, CA
07/98-01/01 Resident Physician/House Staff
Department of Neurosurgery, LA County General Hospital, Children's Hospital in Los Angeles

06/97-07/98 Angeles, USC University Hospital, Los Angeles, CA
Internship, General Surgery
Department of General Surgery
LA County General Hospital, Los Angeles, CA

PROFESSIONAL EXPERIENCE:

Non-Academic

09/04-present Assistant Professor, Case Western Reserve University School Of Medicine
Director, Neurosurgery Spine
Department of Neurological Surgery University Hospitals Case Medical Center,
Cleveland, Ohio

06/03-06/04 Clinical Instructor/Resident Supervisor Department of Neurological Surgery
Los Angeles County Medical Center, Los Angeles, California

07/02-06/03 Fellow in Spinal Surgery Departments of Neurosurgery and Orthopaedics
University of Utah Medical Center, Salt Lake City, Utah

01/01-06/02 Senior/Chief Resident in Neurosurgery
Department of Neurosurgery USC University Hospital, Los Angeles, California

07/98-01/01 Resident Physician / House Staff
Department of Neurosurgery, LA County General Hospital
Children's Hospital Los Angeles, USC University Hospital, Los Angeles, California

06/97-07/98 Internship, General Surgery
Department of General Surgery, LA County General Hospital, Los Angeles, California

Academic

09/04-present Assistant Professor, Case Western Reserve University
Daily patient rounds, resident and student teaching in operating room, clinic, and
patient wards. Weekly teaching conferences, both basic science and patient-based.
Neuroscience core curriculum medical student teaching lectures on monthly basis.

02/06-present Preceptor for first-year medical students in Case Western Reserve University
Community Patient Care Preceptorship Program

09/05-present Organizer and instructor for monthly Neurosurgical Journal Club conference for
residents and students

03/05, Faculty, Aesculap Spine Product Training Course, Snowbird, Utah

03/06, 03/08 Includes didactic lecture and hands-on sawbones lab teaching of fellow surgeons.

07/06-07/07 Co-Director, Case Western School of Medicine
Neuroscience Core Curriculum Clerkship

09/06 Faculty fir didactic and hands-on lab course in Minimal Access
Spinal Technologies course, presented oral case presentations and led cadaver
instrumentation workshops

10/06 Faculty for AO / ASIF group course for operating room personnel, presented didactic
lecture on cervical spine pathology and led sawbones instrumentation workshop.

Spring 05 Course Instructor, ANAT 516 – Head and Neck Anatomy, Case Western Reserve
Spring 06 University School of Medicine
Classroom lecture and animal laboratory dissection

01/05 Invited faculty, 16th Annual Contemporary Update on Spinal Disorders course for spinal
surgeons. Presented information on new cervical plating techniques

06/03-06/04 Resident Supervisor, Los Angeles County Medical Center
Responsible for supervision and education of all residents, interns and medical
students rotating on Neurosurgery service at L.A. County Hospital. Involves giving
lectures at didactic conferences as well as teaching rounds, surgical instruction, and
formal performance reviews.

03/04 Hands-on skills workshop instructor at course "2nd Annual Advanced Techniques in
Cervical and Thoracolumbar Fusion", Snowbird, Utah

- 2002-2003 Participated in resident and student clinical teaching during fellowship. Gave didactic conference presentations and led journal club sessions.
- 1995 Teaching Assistant, head & neck anatomy course, UW School of Medicine
- 1994 Teaching Assistant, gross anatomy course, UW School of Medicine
- 1991 Teaching Assistant, biochemistry course, Pomona College
- 1990 Teaching Assistant, 1st and 2nd year Japanese language courses, Pomona College.
- Teaching Assistant, general biology course, Pomona College
- 1989 Teaching Assistant, accelerated general chemistry course, Pomona College

BOARD CERTIFICATION:

11/2009 Spinal Neurosurgery

HONORS AND AWARDS:

Medical School

- Honors evaluations in Medicine, Family Medicine, General Surgery, Pediatrics, Psychiatry, Medicine sub-internship, Neurology, Emergency/Critical Care Medicine, multiple other medical school courses and electives.
- 23rd annual Medical Student Western Research Forum, Carmel, CA.
- American Federation for Clinical Research Medical Student Award for Excellence

Undergraduate

- Fulbright Scholarship to Japan (1992-1993)
- National Mortar Board. Pomona Scholar (Dean's list).
- MacKenzie Foundation Scholarship for excellence in undergraduate research.
- ARCS (Achievement Rewards for College Scientists) scholarship.
- Neuroscience Research Program, University of Minnesota.
- Mellon and MacArthur Fellowships for academic study abroad (Japan).
- Selected by Pomona College faculty as Chemistry Department liaison.

High School

- Paul Fowler Scholarship (awarded to top seven graduating seniors in Washington State). Robert C. Byrd scholarship. Washington Scholar
- Washington Principals' Scholar. Washington State Honors Award. National Merit Scholarship Commendation. Senior Class Scholarship Award. Scholar athlete award. Graduated Top Ten Senior Class.

PROFESSIONAL SOCIETIES:

- 2000- American Association of Neurosurgeons
- 1998- Congress Of Neurological Surgeons
- 1996- Alpha Omega Alpha Medical Honor Society
- 1994- Sigma Xi Scientific Research Society
- 2005- AANS/CNS Joint Section on Spine and Peripheral Nerves

INVITED PRESENTATIONS:

1. "Surgical Management of Spinal Stenosis": Department of Rheumatology Grand Rounds, Case Western Reserve University / University Hospitals of Cleveland, May 13, 2005.
2. "Vertebral Body Compression Fractures": Department of Rheumatology Grand Rounds, Case Western Reserve University / University Hospitals of Cleveland, May 13 2005.
3. "Surgical Management of Spinal Tumors": Department of Oncology Grand Rounds, Case Western Reserve University / University Hospitals of Cleveland, Jan. 5, 2005
4. "Surgical Management of Spinal Tumors": Department of Oncology Grand Rounds, Southwest General Medical Center, May 4, 2005
5. "The History of Anterior Cervical Plating": 2nd Aesculap Spine Product Training Course, March 2005.
6. "An Introduction to Anterior Cervical Plating": 3rd Aesculap Spine Product Training Course, March

- 2006.
7. "Surgical Management of Back Pain and Lumbar Radiculopathy" – Louis Stokes VA Medical Center Department of Pain Management Grand Rounds, Cleveland, OH April 2006.
 8. Roundtable discussion of emerging technology in cervical spine surgery – panel discussion, invited panelist (case presentations), June 2006.
 9. Case presentations and hands-on lab faculty for Minimal Access Spine Technologies training course, Memphis TN, Sept. 2006
 10. "Management of Cervical Spine Degenerative Disease and Trauma": AO / ASIF group surgical OR staff training course, Salt Lake City, UT, Oct. 2006
 11. "Back Pain and Lumbar Radiculopathy" – 4PCP (Primary Practice Physicians Program for Chronic Pain", Cleveland, OH, Feb. 2007
 12. "Surgical Management of Cervical Radiculopathy" – Louis Stokes VA Medical Center Department of Pain Management Grand Rounds, Cleveland, OH Mar. 2007

BIBLIOGRAPHY:

Publications - Reviewed

1. Avellino AM, Hart DJ, Dailey AT, MacKinnon M, Ellegala D, and M. Kliot. Differential Macrophage Responses in the Peripheral and Central Nervous System during Wallerian Degeneration of Axons. *Experimental Neurology.* 1995. 136: 183-198.
2. Taketomi A, Nakabeppu Y, Ihara K, Hart DJ, Furuichi M, and M. Sekiguchi. Requirement for two conserved cysteine residues in the Ada protein of Escherichia coli for transactivation of the ada promoter. *Molecular General Genetics.* 1996. 250: 523-532.
3. Hart DJ, Khoo L, McComb J, and Levy M. Pediatric Intracranial Aneurysms: A Review. *Ippocrates.* 2001. 3 (7): 297-305.
4. Hart DJ and Giannotta SL. Complex Cranial Base Meningiomas: Combined Management. *Techniques In Neurosurgery* 9(2): 86-92. June 2003.
5. Hart DJ, Wang MY, Griffith P, Levy ML, and McComb JG. Pediatric Sacral Fractures. *Spine.* 2004 Mar 11; 29(6): 667-70
6. Levy ML, Granville RC, Hart D, Meltzer H. Deep Venous Thrombosis In Children And Adolescents. *J Neurosurg.* 2004 Aug. 101 (1 Suppl): 32-7.
7. Hart DJ and Apfelbaum, RI. Anterior Cervical Spinal Cord Tethering Following Anterior Spinal Surgery. *Neurosurgery.* 2005 Feb. 56(2) E414.
8. Dailey AT, Hart DJ, Rondina M, Bachus K, and Brodke DS. A Comparison of Thoracic Pedicle Screw Placement Using Standard Fluoroscopy Versus Stereotactic Fluoroscopy. In submission.

Publications – Book Chapters and Invited Papers

1. Hart DJ, Corber Z, Levy M, and Apuzzo M. Communication, Visualization, and Data Presentation in the Neurosurgery Operating Room. 2003. In *The Operating Room of the 21st Century.* Apuzzo, M., Editor. Ch. 11, pp. 139-146. American Association of Neurological Surgeons, Rolling Meadows, IL.
2. Hart DJ, Khoo LT, Samudrala SS. Lateral Transthoracic Approach to the Spine. In Fessler RG and Sekhar LN (eds). *Atlas of Neurosurgical Techniques: Cranial and Peripheral Nerve, Spine and Endoscopic Surgery.* Chapter 51, pp. 405-12. Thieme, New York, 2006.
3. Hu, Y. and Hart, DJ. Complications of Vertebroplasty and Kyphoplasty. *J Tech Reg Anes.* July 2007. 11(3): 164-170.

Presentations, Abstracts and Posters

1. Avellino AM, Hart DJ, Dailey AT, MacKinnon M, Ellegala D, and M. Kliot. Upregulation of cellular adhesion molecules and the role of macrophages in the rat sciatic nerve during Wallerian degeneration. Poster presentation at 23rd annual Western Medical Student Research Forum. February 1995.
2. Hart DJ, Krieger M, Levy M, and McComb, J. Split Cord Malformations Associated with Distal Tethering – Is Untethering Indicated? Oral presentation at pediatric section meeting of American Association of Neurological Surgeons. October 2000.
3. Hart DJ, Krieger M, Levy M, and McComb, J. Incidence of Deep Venous Thrombosis in the Pediatric Population. Oral presentation at pediatric section meeting of American Association of

Neurological Surgeons. October 1999.

4. Hart DJ and Giannotta S. Surgical Staging and Radiosurgery in the Management of Multicompartmental Meningiomas. Poster presentation at Congress of Neurological Surgeons meeting, September 2001.
5. Wang MY, Hart DJ, Griffith P, McComb JG, and Levy ML. Traumatic Spinal Cord and Spinal Column Injuries in the Pediatric Population. Poster presentation at Congress of Neurological Surgeons Annual Meeting, Philadelphia, 2002.
6. Dailey AT, Hart DJ and Apfelbaum RI. Anterior Direct Screw Fixation in the Elderly. Oral presentation at Richard Lende Winter Neurosurgery Conference, February 2003.
7. Dailey AT, Hart DJ, Schmidt M, Apfelbaum RI. Anterior Fixation of Odontoid Fractures in the Elderly. Oral presentation at AANS/CNS Joint Section on Spine and Peripheral Nerves Annual Meeting, 2003.
8. Ahn, N, Oldenburg FP, Ahn U, Cassinelli E, Hart DJ, Bohlman H. Predictive Factors for Improvement After Lumbar Epidural Steroid Injections: Survival and Cost-Effectiveness Analysis. Abstract, North American Spine Society Annual Meeting, Sept. 2006
9. Dean C, Glenn W, Ahn U, Cassinelli E, Hart DJ, Bohlman H, Ahn N. Smoking Increases Blood Loss and Transfusion Requirements Following Lumbar Spine Surgery. Abstract, North American Spine Society Annual Meeting, Sept. 2006.
10. Hart DJ, Hu Y, Finn M, Dailey AT, Apfelbaum R. Anterior Odontoid Screw Fixation in the Elderly Population. Oral podium presentation, Neurosurgical Society of America Annual Meeting, June 2007.
11. Fulop SC, Moore M, Tabib-Azar M, Hart DJ. Biocompatible and Matched Piezoresistive Polymeric Films for Implantable Telemetric Force Sensors for in Vivo Spinal Biomechanical Measurements. Oral Point Presentation, AANS/CNS Joint Section on Disorders of the Spine and Peripheral Nerves 24th Annual Meeting, March 2008.

Current Manuscripts in Preparation

1. Anterior Direct Screw Fixation of Odontoid Fractures in the Elderly. Tentative title. Retrospective review of >50 patients over age 69, evaluating fusion outcomes, types of injury, operative details, and complications.
2. Anterior Cervical Dynamic Plating: Clinical Experience with 602 Patients. Tentative title. Prospective enrollment, chart review and radiographic evaluation at pre-op, immediate post-op, six weeks, three, six, twelve, and twenty-four months after implantation of ABC dynamic cervical plate implanted in over 600 patients. Assessment for fusion results, graft settling, correction of sagittal balance.
3. Traumatic Injuries of the Cervicothoracic Junction: Diagnosis and Treatment. Tentative title. Review of over 30 patients who underwent fusion and internal fixation across the cervicothoracic junction. Evaluation of mechanism of injury, type of surgery, type of fixation, pre- and post-operative neurologic deficits, demographic data and outcomes.