

Harel Deutsch, M.D.

Address: 1725 West Harrison Street Suite 970
Chicago, IL 60612

Telephone: (312) 942-6644 (Work)

E-mail: Harel_Deutsch@rush.edu

Date of Birth: Dec. 20, 1971

Education:

University of Miami School of Medicine (1992-1996)
Miami, Florida.
M.D., May 1996.

University of Florida (1990-1992)
Gainesville, Florida.
B.S. in chemistry, May 1992.

Postdoctoral Training:

General Surgery Internship (1996-1997)
The Mount Sinai Hospital, New York, NY.

Neurosurgery Residency (1997-2002)
The Mount Sinai Hospital, New York, NY.

Neurosurgery Spine Fellowship (2002-2003)
Emory University Hospital, Atlanta, GA

Academic Appointments

Associate Professor of Neurosurgery
Rush University, Chicago, IL
Rush University Admissions Committee

Licensure:

Illinois State medical license (No. 036-108957)

Board Certification

Neurological Surgery

Professional Societies:

American Medical Association (AMA)
Congress of Neurological Surgeons (CNS)
American Association of Neurological Surgeons (AANS)
North American Spine Society (NASS)
Society for Minimally Invasive Spine Surgery (2008) [Founding Member]

Honors/Awards:

ΩΩ Medical School Honor Society (1996)
University of Miami Medical School Trustee Academic Scholarship (1992-1996)
University of Miami Medical Student Basic Science Research Grant (1992)

University of Florida College of Liberal Arts and Sciences Outstanding Upper
Division Scholar (1992)
Phi Beta Kappa Honor society (1992)
Duke *Phi Eta Sigma* Freshman Honor Society (1990)
Barnett Bank Academic Tournament Scholarship (1989)

Publications

Peer-Reviewed publications:

- Deutsch, H. The medical information superhighway. **The Journal of the Florida Medical Association** 82(8):22-26, 1995.
- Deutsch H, Arginteanu M, Manhart K, Perin N, Moore F, Steinberger AA, Camins M, Weisz DJ. Somatosensory evoked potential monitoring in anterior thoracic vertebrectomy. **J Neurosurg.** (2 Suppl) 92:155-61, 2000.
- Deutsch H, Jallo GI, Faktorovich A, Epstein F. Spinal intramedullary cavernoma: clinical presentation and surgical outcome. **J Neurosurg** (1 Suppl) 93:65-70, 2000.
- Rubino F, Pamoukian V, Jian FZ, Deutsch H, Inabnet W, Gagner M. Endoscopic endocrine neck surgery with carbon dioxide insufflation: the effect on intracranial pressure. **Surgery.** 98: 122-125, 2000
- Rubino F, Deutsch H, Pamoukian V, Jian FZ, King WA, Gagner M. Minimally invasive spine surgery: an animal model for endoscopic approach to the anterior cervical and upper thoracic spine. **The Journal of Laparoendoscopic and Advanced Surgical Techniques.** 10: 309-313, 2000
- Deutsch H, Kothbauer K, Persky M, Epstein FJ, Jallo GI. Infraselar craniopharyngiomas: Case Report and Review of the Literature. **Journal of Skull Base Surgery.** 11(2):121-127, 2001
- King WA, Wackym PA, Sen C, Meyer GA, Siau J, Deutsch H. Adjunctive use of endoscopy during posterior fossa surgery to treat cranial neuropathies. **Neurosurgery.** 49(1):108-115, 2001.
- Deutsch H, Shrivastava R, Epstein F, Jallo GI. Pediatric intramedullary spinal cavernous malformations. **Spine.** 26(18):E427-31, 2001.
- Rubino F, Nahouraii R, Deutsch H, King W, Inabnet WB, Gagner M. Endoscopic approach for carotid artery surgery. **Surg Endosc.** 16(5):789-94, 2002.
- Deutsch H, Mummaneni PV, Haid RW, Rodts GE, Ondra, SL. Benign sacral tumors. **Neurosurg Focus** 15(2), 2003.
- Deutsch H, Haid RW, Rodts GE, Mummaneni PV. Postlaminectomy cervical kyphosis. **Neurosurg Focus** 15(3), 2003
- Deutsch H, Tilton RL, Rodriguez JC. Lower dose intraventricular T-PA fibrinolysis: case report. **Surg Neurol.** 61(5):460-3, 2004

- Deutsch H, Mummaneni PV, Rodts GE, Haid RW. Posterior cervical laminoplasty using a new plating system : Technical note. **J Spinal Disord Tech.** 17(4):317-20, 2004.
- Deutsch H, Haid RW, Mummaneni PV, Rodts GE. Occipitocervical fixation: long-term results. **Spine.** 30(5):530-5, 2005.
- Jimenez J, Sepehr S, Braverman B, Deutsch H, Ratliff JK. Palsies of the 5th cervical nerve root after cervical decompression: prevention using continuous intraoperative EMG monitoring. **J Neurosurg: Spine.** 3:92-97, 2005.
- Sani S, Boco T, Deutsch H. Cervical stenosis presenting with acute Brown-Sequard syndrome: case report. **Spine.** 15;30(16):E481-3, 2005.
- Deutsch H, Musacchio M. Minimally invasive transforaminal lumbar interbody fusion with unilateral pedicle screw fixation. **Neurosurg Focus.** 20(3):E10, 2006.
- Mummaneni PV, Deutsch H, Mummaneni VP. Cervicothoracic kyphosis. **Neurosurg Clin N Am.** Jul;17(3):277-87, 2006.
- Deutsch H, Haid R, Rodts G Jr, Mummaneni PV. The decision-making process: Allograft versus autograft. **Neurosurgery.** 60(1 SUPP):S98-S102, 2007.
- Musacchio M, Patel N, Bagan B, Deutsch H, Vaccaro AR, Ratliff J. Minimally invasive lumbar laminectomy via a dual-tube technique: evaluation in a cadaver model. **Surg Neurol.** 67(4):348-52, 2007.
- Patel N, Bagan B, Vadera S, Maltenfort MG, Deutsch H, Vaccaro AR, Harrop J, Sharan A, Ratliff JK. Obesity and spine surgery: relation to perioperative complications. **J Neurosurg Spine.** Apr;6(4):291-7, 2007.
- Musacchio M, Patel N, Bagan B, Deutsch H, Vaccaro AR, Ratliff J. Minimally Invasive Thoracolumbar Costotransversectomy and Corpectomy via a Dual-Tube Technique: Evaluation in a Cadaver Model. **Surg Technol Int.** 16:221-5, 2007.
- Deutsch H, Boco T, Lobel J. Minimally invasive transpedicular vertebrectomy for metastatic disease to the thoracic spine. **J Spinal Disord Tech.** 21(2):101-5, 2008.
- Boco T, Deutsch H. Delayed symptomatic presentation of epidural hematoma after epidural catheter anesthesia. **Spine.** 32(22):E649-51, 2008.
- Angevine PD, Deutsch H. Idiopathic scoliosis. **Neurosurgery.** 63(3 Suppl):86-93, 2008.
- Bagan B, Patel N, Deutsch H, Harrop J, Sharan A, Vaccaro AR, Ratliff JK. Perioperative Complications of Minimally Invasive Surgery (MIS): Comparison of MIS and Open Interbody Fusion Techniques. **Surg Technol Int.** 17:281-6, 2008.
- Deutsch H. High-dose bone morphogenetic protein-induced ectopic abdomen bone growth. **Spine J.** 10(2): E1-4., 2009.
- Deutsch H. The predictive value of high ODI scores in lumbar disk arthroplasty. **Neurosurg Focus,** 28(6) E7, 2010.
- Deutsch H. Pain outcomes in surgery for patients with intramedullary spinal cord cavernous malformations. **Neurosurg Focus.** 29(3) E15, 2010.

Kasliwal M, Deutsch H. Anhidrosis after anterior retroperitoneal approach for L4-5 artificial disc replacement. **Journal of Clinical Neuroscience**. 42(2), 3, 2011.

Kasliwal M, Deutsch H. Completely calcified lumbar synovial cyst: case report. **Neurology India**. 59(2), 315-6, 2011.

Kasliwal M, Deutsch H. Unilateral paramedian transpedicular approach for repair of anterior transdural spinal cord herniation. Accepted **Asian Spine Journal**, 2011.

Kasliwal M, Deutsch H. Minimally invasive retropleural approach for central thoracic disc herniation. **Journal of minimally invasive neurosurgery**, 2011.

Kasliwal M, Deutsch H. Effect of total lumbar disc replacement on lumbosacral lordosis. **Journal of Spinal Disorders & Techniques**. 2011.

Kasliwal M, Deutsch H. Clinical and radiographic outcomes using local bone shavings as autograft in minimally invasive transforaminal lumbar interbody fusion. *World Neurosurgery*. Accepted 2011.

Published Abstracts:

Deutsch H, Camins MB. Intracerebral Whipple's Disease Diagnosed by Stereotactic Biopsy: A Case Report and Review of the Literature: (Comment) **Neurosurgery** 44(1):209, 1999.

Deutsch H, Jallo G, Fakovich A, Epstein F. Spinal intramedullary cavernomas: clinical presentation and surgical outcome. **Neurosurgery** 45(3):712, 1999.

King WA, Deutsch H, Francesco R, Nahouri RA, Gagner M. Endoscopic carotid surgery in a porcine model. **J Neurosurg**. 94:157A, 2001.

Wright N, Kee D, Cosgrove R, Tew J, Kaiser, M, Deutsch H, Ondra S. DuraSeal™ Spinal Sealant as an Adjunct to Sutured Dural Repair in the Spine: Results of a Prospective, Multi-Center, Randomized Controlled Study. **Neurosurgery** 64(2): 410, 2009.

Book Chapters

Deutsch H, King WA, Post KP. Pituitary adenoma surgery. In: Gilman S, Goldstein GW, Waxman SG, editors. Neurobase. San Diego: Arbor Publishing 3rd 2000 ed.

Deutsch H, King WA, Wackym PA. Pituitary and parasellar region. In: Wackym PA, Rice DH, Schaefer SD, editors. Minimally Invasive Surgery of the Head, Neck, and Cranial Base. Chicago: Thieme Publishing, 2001.

Deutsch H, King WA, Post KP. Transsphenoidal surgery. In: Gagner M, Inabnet WB, editors. Minimally Invasive Endocrine Surgery. Philadelphia: Lippincott-Raven Publishers, 2001.

Deutsch H, Ullman J. What is the optimal hematocrit for head injured patients? In: Valadka, AB. Neurotrauma: Evidence-Based Answers to Common Questions. Chicago: Thieme Publishing, 2002.

Germano I, Deutsch H. The Optical Digitizer In: Germano, I. Advanced Techniques in Image Guided Brain and Spine Surgery. Chicago: Thieme Publishing, 2002.

Deutsch H, Haid RW, Rodts GE. Complications of therapy: spinal deformity. In: Black PM, Jaaskelainen J. Low Grade Gliomas (WHO I-II) Humana Press Inc, 2003.

Deutsch H, Haid RW, Rodts GE, Mummaneni PV. New Technologies in Anterior Cervical Spine Fixation. Current Concepts in Neurosurgery. 2003.

Jenkins A, Deutsch H, Patel N, Post KP. Complication avoidance in neurosurgery. In: Winn HR. Youman's Textbook of Neurosurgery. 5th Edition. Saunders, 2005.

Deutsch H, Mummaneni PV, Haid, RW. Resorbable spacers for anterior and posterior lumbar fusion. In: Kim, D, Vaccaro A, Fessler R. Spinal Instrumentation. Thieme, 2005.

Deutsch H, Haid RW. Cervical Ankylosing Spondylitis. In: Mummaneni P, Haid RW, Lenke L. Spinal Deformity: A Guide to Surgical Planning and Management. Quality Medical Publishing, 2007.

Deutsch H, Ratliff J. Minimally Invasive and Endoscopic Surgery of the Spine. In: Schmidek and Sweet. Neurosurgical Techniques. Elsevier Publishing, 2005.

Deutsch H, Mummaneni P. Distraction-extension injuries of the cervical spine. In: Kim D and Vaccaro A. Pediatric and Adult Spine Trauma , 2007.

Deutsch H. Craniocervical Instrumentation Techniques. In: Wolfla CE and Resnick DK. Neurosurgical Operative Atlas, Spine and Peripheral Nerve Surgery, 2nd Edition. Thieme, 2007.

Deutsch H, Kantor A. History and evolution of cervical spine surgery. In: Mummaneni PV, Kantor A, Haid RG. Cervical Spine Surgery: Current Trends. QMP, 2009

Munns J, Park DK, Deutsch H, Singh K . Primary Spinal Cord Tumors: Part I- Intramedullary Tumors. Contemporary Spine Surgery. 10(5):1-7, May 2009.

Munns J, Park DK, Deutsch H, Singh K. Primary Spinal Cord Tumors: Part II- Intramedullary Tumors. Contemporary Spine Surgery. 10(6):1-6, June 2009.

Deutsch H, Haid, R, Traynelis V. Dorsal subaxial cervical instrumentation techniques. In Benzel E. Spine Surgery, 3rd Edition, 2010.

Deutsch H. The treatment of acute cauda equine syndrome. In: Jamie Ullman. Atlas of Emergency Neurosurgery: Thieme 2011.

Books

Singh K, An Howard, Deutsch H. Spine Surgery Atlas. Thieme, 2011. In Press.

Oral Presentations:

Neurosurgery in the Rockies meeting, March 1998
Intramedullary cavernomas: clinical presentation.
Deutsch H, Jallo G, Epstein F.

Congress of Neurological Surgeons 49th Annual Meeting, Boston, MA, November, 1999.
Spinal Intramedullary cavernomas: Clinical presentation and surgical outcome
Deutsch H, Jallo G, Fakovich A, Epstein F.

Congress of Neurological Surgeons. 50th Annual Meeting, San Antonio, TX, September, 2000. Adjunctive use of the endoscope in posterior fossa surgery for cranial neuropathies.
Deutsch H, King WA, Wackym, PA

Neurosurgery in the Rockies meeting, March 2002
Medical Management of Acromegaly.
Deutsch H, Post KD

Congress of Neurological Surgeons 53rd Annual Meeting, Denver, CO, October 2003.
Adjacent level degeneration after occipito-cervical fusion.
Deutsch H, Haid RW, Rodts GE, Mummaneni PV

C5 Palsies after cervical decompression: prevention via continuous intraoperative EMG.
Dec. 2004, CSRS Meeting, Boston, MA.
Jimenez J, Sani S, Deutsch H, Ratliff, JK

Discogenic Pain/Discography. AANS/CNS Section on Pain Biennial Meeting. (General Session) Chicago, IL April 2008.
Deutsch H.

Cervical myelopathy and treatment. American Association of Neuromuscular & Electrodiagnostic Medicine, Quebec, Canada, October, 2010.

Posters

Deutsch H, Rubino, F, Gagner M, Post KD, Perin N, King WA. Experimental neurosurgical endoscopic cervical techniques in a porcine model. Congress of Neurological Surgeons. 50th Annual Meeting.

Mummaneni PV, Deutsch H, Rodts GE, Haid RW. Cervical Laminoplasty Using a New Plating System. Poster Presentation: Joint Section on Disorders of the Spine and Peripheral Nerve. Tampa, FL (March 03)

Mummaneni PV, Deutsch H, Haid RW, Rodts GE. Cervical Pedicle Subtraction Osteotomy for Chin on Chest Deformity - Technique and Results. Southern Neurosurgical Society Orlando, FL (March 03)

Deutsch H, Lobel J, Ratliff J. Wound closure using (2-Octyl cyanocrylate) in spine surgery. AANS/CNS spine section meeting. San Diego, CA (March 04)

Jimenez J, Deutsch H, Ratliff J. C5 Palsies after cervical decompression: prevention via continuous intraoperative EMG Monitoring. AANS/CNS spine section meeting. San Diego, CA (March 04)

Atkuru L, Deutsch H, Ratliff JK. Development of an Online Teaching Atlas of Brachial Plexus Operative Anatomy. AANS meeting. Orlando, FL (May 04)

Deutsch, H, Haid RW, Rodts GE, Mummaneni PV. Occipitocervical Fusion versus Transoral Decompression and Fusion in 50 Patients. AANS meeting. Orlando, FL (May 04)

Deutsch H. Minimally invasive transpedicular vertebrectomy and stabilization for thoracic metastatic tumor. AANS meeting. San Francisco, CA (May 04)

Deutsch H. Minimally invasive transforaminal lumbar interbody fusion with unilateral pedicle screws. AANS meeting. San Francisco, CA (May 04)

Positions

Guest Reviewer for Neurosurgery Journal

Medical advisor at Medschool.com (1998-1999)

Florida Medical Society (Dade county representative 1994-1995)

Elected resident representative to the Medical Board, Mt. Sinai Hospital, New York, NY (2001-2002)

Community Editor for Spineuniverse.com (2003 – present)

Topic Editor for Spineuniverse.com (2005-present)

Co-director of the Rush spine center (2004-2009)

Professional Society Activity

Faculty member - New advances in interbody fusion pre-meeting course. Congress of Neurological Surgeons 53rd Annual Meeting, Denver, CO (October 2003)

Faculty member - Special symposium. Interactive Cervical spine stabilization – Special symposium for nurses and physician assistants. AANS/CNS spine meeting. San Diego, CA (March 2004)

Faculty member – Advanced topics in thoracolumbar instrumentation. AANS meeting. Orlando, FL (May 2004)

Faculty member – Advanced topics in lumbar instrumentation. CNS meeting. San Francisco, CA (Oct 2004)

Faculty member – Advanced lumbar spine surgery: Minimally Invasive Surgery and Motion Preservation. NASS Course (March 2005)

Faculty member – Cervical spinal instrumentation. AANS meeting. New Orleans, LA (May 2005)

Faculty member - Advanced thoracolumbar instrumentation. AANS meeting. Washington, DC (April 2007)

Faculty member – Advances in cervical surgery – arthroplasty. AANS meeting. Washington, DC (April 2007)

Faculty member - Management of Cervical Spine Deformity and Instability. AANS Meeting. Chicago, IL (April 2008)

Faculty member - Thoracic and Lumbar Stabilization and Fusion: Indications and Complications. AANS Meeting. Chicago, IL (April 2008) "Discitis and osteomyelitis treatment strategies"

AANS/CNS Pain Section Biennial Symposium guest speaker – "Lower back pain and discography" Chicago, IL (April 2008)

North American Spine Society (NASS) minimally invasive course.
"Minimally invasive lumbar microdiscectomy" and "Posterior cervical foraminotomy" Chicago, IL (June 2008)

AANS/CNS National Resident course - instructor. Burr Ridge, IL (November 2009)

AANS/CNS Spine Section Annual Meeting Faculty moderator, Orlando, FL (March 2010)

AANS Meeting faculty – Advanced topics in thoracolumbar instrumentation, Philadelphia 2010.

AANS Meeting speaker – Spondylolisthesis breakfast seminar – "MIS versus open and 360 degree versus pedicle screws", Philadelphia, 2010.

AANS Meeting speaker – Spondylolisthesis breakfast seminar – "Surgical treatment and complications", Denver, 2011.

Industry sponsored teaching courses

Faculty – Transforaminal lumbar interbody fixation course. Memphis, TN April 2004. (Medtronic)

Faculty – Armed Forces Bethesda thoraco-lumbar spine course. Bethesda, MD June 2004. (Interpore-Cross)

Faculty – Palm beach Mobile MERI speaker. West Palm Beach, FL December 2004. (Medtronic)

Faculty – (Chairman) Kansas City MIS course. Lumbar minimally invasive fusion. Kansas City, MO. May 2005. (Stryker)

Faculty – (Chairman) The Art of Science of Minimally Invasive Spine Surgery. Chicago, IL. June 2005. (Abbott Spine)

Faculty – Seattle MIS Course. Advanced lumbar interbody fusion techniques. Seattle, WA. Aug 2005 (Medtronic)

Faculty – New Orleans MIS course. Lumbar minimally invasive fusion. New Orleans, LA Aug 2005. (Stryker)

Faculty – (Chairman) Chicago MIS course. Lumbar fusion technologies. Chicago, IL Oct. 2005 (Stryker)

Faculty (Chairman) Chicago operating room personal course. Spinal instrumentation. Chicago, IL, Sept. 2005. (Medtronic)

Faculty - The Art of Science of Minimally Invasive Spine. West Palm Beach, FL. Feb. 2006.
(Abbott Spine)

Faculty – Less Invasive Technology (LITE). Denver, CO, Feb. 2006. (Stryker)

Faculty – Aesculap Product Training Meeting. Snowbird, UT, March 2006 (Aesculap)

Faculty – Less Invasive Technology (LITE) Las Vegas, NV July 2006 (Stryker)

Faculty - The Art and Science of Minimally Invasive Spine Surgery. Las Vegas, NV, July 2006.
(Abbott Spine)

Faculty – University of Nebraska visiting professor Grand Rounds “Life after residency” Oct.
2007.

Faculty – Duke University visiting professor – Cadaver lab “Minimally Invasive TLIFs” Jan 2008.

Faculty –Brazil Spine Surgery Educational meeting. MIS lumbar surgery. Ft. Lauderdale, Florida.
February 2008. (Stryker)

Faculty – Aesculap Academy Spine course (University of Utah) – “Semi-constrained cervical
plates”, Salt Lake City, UT, March 2008.

Faculty – Indiana University MIS course “Mantis pedicle screw system” April 2008.

Faculty – St. Louis University resident course in minimally invasive spine surgery May 2009.

Faculty – Depuy Spine complications course. Speaker. Boston, MA, March 2010.

Rush University Committee

Johnston R. Bowman Health Center advisory committee

Rush Medical School Admissions committee

Rush Resident Research Committee