



DEPARTMENT OF ORTHOPAEDIC SURGERY
 UCI SCHOOL OF MEDICINE
 UCI MEDICAL CENTER, PAVILION III
 101 THE CITY DRIVE SOUTH
 ORANGE, CA 92868

CURRICULUM VITAE

Charles David Rosen, M.D.
Clinical Professor of Orthopaedic Surgery
Spine Surgery

EDUCATION

Regents Honors Graduate Harrison, New York			June 1972
University of Pennsylvania, Cum Laude, June 1977 Philadelphia, Pennsylvania	B.A.		1972-1977
Entered under EARLY ADMISSIONS PROGRAM from Junior year at Harrison High School			
University of California, San Diego La Jolla, California	M.D.		1979-1983
Santa Barbara Cottage Hospital, Santa Barbara, California	Internship	General Surgery	1983-1984
Hospital for Joint Diseases Orthopaedic Institute, New York, New York	Residency	Orthopaedic Surgery	1984-1988
Rancho Los Amigos Medical Center, Downey, California	Fellowship	Spine Surgery & Rehabilitation	1988-1989

LICENSES AND CERTIFICATIONS

Diplomat, American Board of Orthopaedic Surgeons	1991
California Medical License G-53395	1984

PRINCIPAL POSITIONS HELD

<u>Clinical Professor of Surgery</u> Department of Orthopaedic Surgery University of California, Irvine, School of Medicine	2007-present
President, Association for Medical Ethics	2015- present
<u>Joint Editor-In-Chief: Journal of Hard Tissue.</u> Springer Verlag.	2012 – 2014
<u>Associate Editor: Ethics in Biology, Engineering, and Medicine.</u> Begell House Pub.	2010-present
Participant <u>U.S. SENATE: Roundtable</u> on Physicians Payment Sunshine Act Washington, DC with Senators Kohl, Grassley, and Blumenthal	August 2012
<u>President, Hard Tissue Society</u> – the International Society of Hard Tissue Scientists. London, England. www.HardTissue.com	2012-2014
Conference Advisory Board: <u>American Society of Mechanical Engineers</u>	2010-2012
<u>NOMINEE FOR UNITED STATES SURGEON GENERAL</u> short list by Obama Administration	December 2008
<u>CONGRESSIONAL: WITNESS</u> and advisor before <u>U.S. Senate Special Committee on Aging</u> Washington, DC. . CONGRESSIONAL TESTIMONY on behalf of : Physicians' Payment Sunshine Act sponsored by Sen. Grassley (R-IA) and Sen. Kohl (D-W)	January 2008
<u>Haitian Relief - Project Medishare</u> volunteer –Port Au Prince, Haiti	3/13 – 3/21/2010
<u>California Medical Board Advisor</u> – reviewing spinal surgeries	2004-2009
Medical Student Mentor and Contributor <u>American Medical Association</u> <u>Journal of Ethics</u>	2009
Member of national Blue Cross Blue Shield Expert Panel Roster for devising guidelines for <u>Blue Distinction Centers for Spine Surgery</u> nationally	2009
Member: <u>Conflict of Interest Committee, University of California, Irvine,</u> <u>School of Medicine</u>	2008- 2010
CoFounder, Association for Medical Ethics. President	2006- present 2006-2009

Website: EthicalDoctor.org	2008-present
President and Founder, <u>Association for Ethics in Spine Surgery</u> .	2006
University of California, Irvine UCI Spine Center Founding Director	2002-present
University of California, Irvine Department of Orthopaedic Surgery Assistant Clinical Professor of Surgery	1995-1999
Associate Clinical Professor of Surgery	1999-2007
Rancho Los Amigos Medical Center Spinal Injury Service Downey, California Attending Physician, Consultant Specialist	1989-1992
University of Southern California School of Medicine Los Angeles, California Clinical Instructor of Orthopaedics	1989-1992
Garden Grove Hospital Garden Grove, California Chief of Surgery	1998-2000

HOSPITAL AFFILIATIONS

University of California, Irvine Medical Center
Orange, California
Attending Physician, Active Class I

HONORS AND AWARDS

U.S. Surgeon General short list for nomination by Obama administration in December 2008

Albert M. Betcher Scholarship Award

Fellowship Study in Orthopaedic Surgery,
Hospital for Joint Diseases Orthopaedic Institute
New York, New York

Robert Hamburger Memorial Thesis Award

Runner-up for Senior Medical School Thesis, 130 papers submitted,
“Education in Medical School”
University of California, San Diego

School of Medicine
La Jolla, California

Gold Medal in Figure Skating (Ice Dancing)

Trained with the United States Olympic Team Coach (1972-1975),
winning numerous medals in competition. Appeared twice on ABC's Wide World of Sports.

MEMBERSHIP IN PROFESSIONAL ORGANIZATIONS

Fellow, American College of Surgeons	1993-present
North American Spine Society	1988-present
Sports Medicine Committee, United States Figure Skating Association	1990-1993
Western Orthopaedic Association	1993 -present
California Orthopaedic Association	1993- present
Fellow, American Academy of Orthopaedic Surgeons	1993 - 2013

PRESENTATIONS / SYMPOSIUMS

9 TH Annual International Conference on Ethics in Biology, Engineering, & Medicine SESSION CHAIR – Medical Practice and Ethics	April 2018
American College of Occupational and Environmental Medicine Annual Meeting Los Angeles, CA KEYNOTE ADDRESS – WILLIAM T. PATTERSON MEMORIAL LECTURE	May 2012
Congress of Neurological Surgeons Annual Meeting Washington, DC PRESENTATION – Ethics in Neurosurgical Practice	October 2011
UCLA School of Engineering Los Angeles, CA PRESENTATION – Bioengineering and Ethics	February 2011
Blue Cross / Blue Shield National CMO Meeting Chicago, IL PRESENTATION – Bringing Care Back into Healthcare	October 2009
UC Regents: Symposium – Conflicts of Interest Oakland, CA PRESENTATION – Conflicts of Interest in Medicine.	June 2008
4 TH Frontiers in Biomedical Devices Conference Irvine, CA Session Chair and Speaker: “Ethics in Orthopaedics”	June 8-9, 2009

PRESENTATION- Spine Arthroplasty and Ethics

American Society of Interventional Pain Physicians (ASIPP) February 2009
Washington, DC

KEYNOTE OPENING SPEAKER – The Evolution of Ethics and Disclosure

Orthopaedic Research Society (ORS) February 2009
Las Vegas, Nevada

PRESENTATION - Poster: Lumbar Disc Replacement Failures: Review of 29 Patients:
Rationale for Revision.

Orthopaedic Research Society (ORS) February 2008
San Francisco, California

PRESENTATION – Poster: New Method for Determining the Axial Center of
Rotation in the Thoracic and Lumbar Spine

American Association of Neurological Surgeons April 2007
Washington, DC

PRESENTATION – The Failure of Lumbar Disc Replacements in the US,
A New Model of Lumbar Spine Motion

American College of Surgeons Annual Meeting- 93rd Clinical Congress October 2007
New Orleans, Louisiana

PRESENTATION: Industrial Ties: Ethical Relationships for Surgeons

American Academy of Minimally Invasive Spine Surgery and Medicine March 2007
Shanghai, China

PRESENTATION: Artificial Lumbar Discs, the FDA, and a New Model of
Spine Motion

Western Orthopaedic Association Meeting September 2006
Orange, California

PRESENTATION: Artificial Lumbar Discs, the FDA, and A New Model
of Spine Motion

UCI Department of Orthopaedic Surgery Graduate Research Forum June 2006
Orange, California

PRESENTATION: Percutaneous pre-sacral approach and method for
lumbo-sacral fusion

North American Spine Society August 1990
Monterey, California

Rosen, et al.

PRESENTATION: The Lumbar Facet Fracture as a Source of Pain after
Lumbar Laminectomy.

American Spinal Injury Association
Orlando, Florida
Rosen, et al.

PRESENTATION: The Lumbar Facet Fracture as a Source of Pain after
Lumbar Laminectomy.

May 1990

American Spinal Injury Association
Las Vegas, Nevada
Garland, Rosen, et al.

PRESENTATION: Bone Mineral Distribution Five Years or More After
Spinal Cord Injury.

April 1989

American Academy of Orthopaedic Surgeons, Federation of Spine Associate Meeting
San Francisco, California
Rosen, et al.

PRESENTATION: A Retrospective Analysis of the Efficacy of Epidural
Steroid Injections.

SYMPOSIUMS SPONSORED

Ethics: The Role of Industry and Academia – Univ. of CA, Irvine, School of Medicine
Organized 1 day symposium of 12 speakers from Senate, DOJ, research, ethics, and industry.
Created “Ethical Rules of Disclosure” under joint collaboration of speakers.

June 2009

CITATIONS

Orthopaedic Knowledge Update, Three, 1990: Cited and summarized under lumbar spine section,
Rosen, et al., *A Retrospective Analysis of the Efficacy of Epidural Steroid Injections.*”
Clinical Orthopaedics and Related Research, Vol. 228, March 1988, pp 270-273.

PUBLICATIONS

- Charles C. Lin, BSE; Young Lu, MD; Nilay A. Patel, MD; P. Douglas Kiester, MD; Charles D. Rosen, MD; Nitin N. Bhatia, MD; Yu-Po Lee, MD; *Outcomes and Complications After Spinal Fusion in Patients with Obstructive Sleep Apnea.* The Global Spine Journal. Published August 13, 2018.
- Rosen, Charles MD; Kiester, Douglas MD; Lee, Thay PhD: *Pseudo-Pedicle Heterotopic Ossification From Use of Recombinant Human Bone Morphogenetic Protein 2 (rhBMP-2) in Transforaminal Lumbar Interbody Fusion Cage,* American Journal of Orthopedics in press January 29, 2018.
- Yu-Po Lee, MD; Saifal-Deen Farhan, MD; Douglas Kiester, MD; Charles Rosen, MD; Arif Pendi, MS; Nitin Bhatia, MD *Variables Affecting Return to Work After Spine Surgery in a Non-Workers'*

Compensation Population: A Retrospective Cohort Study. Journal of the American Academy of Orthopaedic Surgeons, December 2017, 25(12):e282-e288.

- S. Samuel Bederman MD, PhD, FRCSC, Charles D. Rosen MD, Nitin N. Bhatia MD, FACS, P. Douglas Kiester MD, Ranjan Gupta MD *Drivers of Surgery for the Degenerative Hip, Knee, and Spine: A Systematic Review*, Clin Orthop Relat Res (2012) 470:1090–1105
- **Guest Editor** of Vol 2, #3, 2011 edition of the Journal of Ethics in Biology, Engineering and Medicine-Conflicts of Interest
- Rosen, Charles D., *It's Not About the Money*, The Spine Journal (11) 2011 pg 700-702
- Perret, D and Rosen, C., *A Physician-Driven Solution—The Association for Medical Ethics, The Physician Payment Sunshine Act, and Ethical Challenges in Pain Medicine*: Pain Medicine 2011; 12; 1361-1375
- Rosen, C., *Wall Street Medicine: Prescription for Profit*: J. of Ethics in Biology, Engineering and Medicine Vol 2, #3, 2011
- Sanjum P. Samagh, MS; Charles D. Rosen, MD; Karimdad Otarodifard, MD; Matthew Kornswiet, MS; Gabe Palmer, BS; Thay Q. Lee, PhD* *New method for determining apparent axial center of rotation of lumbar and thoracic spine segments.* Journal of Research, Rehabilitation and Development Vol 48, #5, 2011
- Rosen, Charles, MD “ *The Association for Medical Ethics and the Physician Payment Sunshine Act*” Ethics in Biology, Engineering, and Medicine – An International Journal 2010; Vol 1, Issue 3
- Rosen C. “*New Devices and Truly Informed Consent*”. Virtual Mentor – AMA J. of Ethics 2010; 12:73-76. <http://virtualmentor.ama-assn.org/2010/02/ccas1-1002.html> Accessed February 1, 2010.
- Charles Rosen, Douglas Kiester, Thay Q. Lee: “*The Potential Biomechanical Etiology for Lumbar Disc Replacement Failures: Review of 29 Patients and the Rationale for Revision*”. ORTHOPAEDICS October 2009
- C. Rosen & D. Kiester : “*Lumbar Disc Replacements, the FDA , and A New Model of Lumbar Spine Motion*” . The Internet Journal of Minimally Invasive Spinal Technology. 2007 Volume 1 Number 1
- 2. Tehranzadeh, J., Ton, JD, Rosen, C., “*Advances in Spinal Fusion.*” Seminars in Ultrasound CT and MRI, Vol. 26, No. 2, April 2005, pp103-113.
- Garland, Rosen, et al., “*Osteoporosis after Spinal Cord Injury.*” Journal of Orthopaedic Research, Vol. 10, No. 3, 1992, pp 371-378.
- Rosen, et al., “*Lumbar Facet Fracture as a Possible Source of Pain after Lumbar Laminectomy,*” Spine, V. 16, No. 62, pp 234-238.

- Stewart, Rosen, et al., “*Heterotopic Ossification Effect on Dual Photon Absorptiometry of the Hip.*” Clinical Nuclear Medicine, October 1990, Vol. 15, No. 10, pp 697-700.
- Rosen, et al., “*A Retrospective Analysis of the Efficacy of Epidural Steroid Injections.*” Clinical Orthopaedics and Related Research, V. 228, March 1988, pp 70-.
- Garland, Rosen, et al., “*Bone Mineral Distribution Five Years or More after Spinal Cord Injury.*” Journal of Nuclear Medicine. V. 30, No. 5, May 1989, p 857.
- Sharnoff, Rosen, et al., “*Prevention of Fatal Pulmonary Thromboembolism by Small Dose Heparin Prophylaxis.*” The British Journal of Clinical Practice, V. 35, November 1981, pp 390-392.

SUBMITTED FOR PUBLICATION

- MARCH 2019 Young Lu MD, Charles C. Lin BSE, Hayk Stepanyan MD, Nitin N. Bhatia MD, P. Douglas Kiester MD, Charles D. Rosen MD, Yu-Po Lee MD, *Impact of Cirrhosis on Morbidity and Mortality After Spinal Fusion*
Global Spine Journal
- JANUARY 2018 Yu-Po Lee MD, Saifal-Deen Farhan MD, Arif Pendi MS, BS, Torin J Cunningham MD, P. Douglas Kiester MD, Peter Hahn MD, Charles Rosen MD, Nitin N. Bhatia MD, *Addition of Intrawound Tobramycin Powder to Reduce Surgical Site Infections After Spinal Surgery*
- JANUARY 2018 Yu-Po Lee MD, Saifal-Deen Farhan MD, Arif Pendi MS, BS, Torin J Cunningham MD, P. Douglas Kiester MD, Peter Hahn MD, Charles Rosen MD, Nitin N. Bhatia MD, *The Efficacy of Prepackaged Sterile Implants on Infection Rates After Instrumented Spinal Fusion Surgery: Preliminary Findings of a Retrospective Study*
- JUNE 2017 Yu-Po Lee MD₁, Saifal-Deen Farhan MD₁, Arif Pendi MS₁, Torin J Cunningham MD₂, P Douglas Kiester MD₁, Peter Hahn MD₁, Charles D Rosen MD₁, Nitin Bhatia MD₁ *Use of Tobramycin Powder to Decrease Infection Rates in Spine Surgery*
Journal of the American Academy of Orthopaedic Surgeons

CURRENT RESEARCH

- AUGUST 2017 Cerebral microbleeds and spinal cord injuries in high school football players.
Irene Say, MD; Fisher, Mark MD; Rosen, Charles MD; Lee, Yu-Po, MD

LAY PRESS AND TELEVISION

NETFLIX Original Series *The Bleeding Edge* May 2018 re FDA and medical device approvals.
Consultant for content and direction.

NBC Nightly News with Brian Williams
http://www.msnbc.msn.com/id/3032619/ns/nightly_news/#43596626

The Atlantic – The Medical–Industrial Complex – 6/29/10

PROFILE - “From Outcast to Surgeon General” Orange County Register , 1/09/09

PROFILE – Business Week 5/9/08 “Doctor vs. Device Makers”

Good Housekeeping –“ Low Back Pain “ 1/1/09

Wall Street Journal, 6/7/05 “J & J’s New Device For Spine Surgery Raises Questions” R. Rundle

The Street.com, 5/5/05 “J & J Discs Face Backlash” M. Davis

The Chicago Sun Times, 11/8/05 “Will Surgery Stop Your Back Pain?” J. Ritter

The Orange County Register, 2/15/05 “Back Surgery Evolves” M. Saar

Newsday, 10/11/05 “Artificial Disc Brings Mixed Results for People Suffering with Back Pain” J. Talan

Health Point .com 5/27/05 “ An Interview with Dr. Charles Rosen on Artificial Disc Clinical Trials” J. McCormick, The Street.com, 12/22/05 “Hope Slips for Disc Implants” M. Davis

The Gray Sheet, 2/6/06 “FDA Questioned on Prodisc” Vol 32, no. 6

MD Magazine, Feb 2006, “The UCI Spine Center-Dr. Charles Rosen, Founding Director” Cover story by R. Stillman

The Orange County Register, 4/14/06, “OC Doctors ,Disagree over Implants” B. Bernhard.

The Street.com, 6/4/06 “Suits Target J & J Discs” M. Davis

Book Chapter – “Money Driven Medicine” by M. Mahar. Published by Collins 2006. Ch 8. “Device Makers, Drugmakers, and the FDA.”

USA Today, 7/25/06 “Artificial Spinal Disc generates controversy”

The Los Angeles Times, 8/1/06, “Artificial Disc Recipients Take Legal Steps”

The New York Times, 12/30/06, “Side Effects: The Spine as Profit Center”

The Orange County Register, 3/6/07, “Don’t blame age for your bad back”

The Monterey Herald.com, 3/17/07, "Lots of reasons for back pain"

Chicago Tribune, 3/27/07, "Sore back can be a world of real hurt"

EMPLOYMENT

Head Tennis Instructor Hercules Country Club June to August Wilmington, Delaware	1970-1973
Saltaire Yacht Club June to August Saltaire, New York	1970-1973
Darien Figure Skating Club Darien, Connecticut	1977-1979
Professional Figure Skating Instructor Rye Figure Skating Club Rye, New York	1977-1979

SKILLS AND ACTIVITIES

Languages

Knowledge of Spanish. Conversational French - two months working in a Paris hospital during fourth year of medical school.

Piano

Studied for eight years, ages 8 to 16.

Sports

Skiing. Tennis. Figure skating.