

## NATHAN JOHN LEE, M.D.

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### EDUCATION

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<b>Icahn School of Medicine at Mount Sinai, New York, NY</b> Doctor of Medicine	8/2014 – 5/2018
<b>Columbia University, New York, NY</b> Fu Foundation School of Engineering and Applied Science Bachelor of Science in <b>Chemical Engineering</b> , 3.84/4.00	9/2008 – 5/2012
<b>Harvard – Westlake School, Los Angeles, CA</b> High school Diploma	9/2004 – 5/2008

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### POST GRADUATE TRAINING

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#### *Fellowship*

<b>Adult and Pediatric Comprehensive Spine Fellowship</b> <b>New York-Presbyterian Och Spine Hospital</b> <b>Columbia University Medical Center</b> New York, NY	8/2023 – 8/2024
<b>Orthopedic Surgery Residency</b> <b>Columbia University</b> New York, NY	6/2018 – 6/2023

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### ACADEMIC APPOINTMENTS

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<b>Assistant Professor</b> Division of Spine surgery Department of Orthopedic Surgery Midwest Orthopedics at Rush	8/2024 – Present
<b>Attending and Clinical Instructor</b> Department of Orthopedic Surgery and Neurosurgery New York-Presbyterian Hospital/Columbia and Cornell University	8/2023 – 8/2024

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### AWARDS/HONORS

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- 2024:** Russell A. Hibbs Award in Clinical Research (Finalist) – 59<sup>th</sup> SRS Annual Meeting
- 2024:** Best Paper – 39<sup>th</sup> North American Spine Society
- 2023:** Young Surgeon Grant – International Spinal Deformity Symposium (ISDS)
- 2023:** The Lawrence G. Lenke, MD Award for Excellence in Spine Surgery. Columbia University, NYP Och Spine Hospital
- 2023:** Albert Scholar Award – Annual Meeting of the AANS/CNS Section on Disorders of the Spine and Peripheral Nerve
- 2023:** Education/Curriculum Chief Resident – Orthopedic Surgery at Columbia University
- 2022:** The Lawrence G. Lenke, MD Award for Excellence in Spine Surgery – The Inaugural award given to the resident who exemplifies empathy, professional competence, and academic excellence in spine surgery. Columbia University, NYP Och Spine Hospital
- 2022:** Young Surgeon Grant Award - International Society for the Advancement of Spine Surgery (ISASS)

**2022:** Young Surgeons Travel Grant Award - Spine: Base to Summit  
**2021:** Thomas Whitecloud Clinical Award Finalist – 28th International Meeting on Advanced Spine Techniques (IMAST)  
**2021:** Value Award Nominee – 36<sup>th</sup> North American Spine Society (NASS)  
**2020:** 2nd Place Resident/Fellow Research Award – 48th Cervical Spine Research Society (CSRS)  
**2020:** Value Award Nominee – 35<sup>th</sup> North American Spine Society (NASS)  
**2019:** Team Building Award – Columbia Doctors Patient Safety Recognition Program  
**2017:** American Spinal Injury Association (ASIA) Vogel Award  
**2017:** Distinction in Research Award, Icahn School of Medicine at Mount Sinai  
**2016:** Value Award Nominee – 31<sup>st</sup> North American Spine Society (NASS)  
**2015:** Icahn School of Medicine’s Summer Student Investigator Program Award  
**2015:** Value Award Nominee – 30<sup>th</sup> North American Spine Society (NASS)  
**2015:** Value Award Winner – 30<sup>th</sup> North American Spine Society (NASS)  
**2012:** Magna Cum Laude, Chemical Engineering at Columbia University  
**2012:** George Vincent Wendell Memorial Medal Finalist, Columbia University  
**2009:** Summer Undergraduate Research Fellowship, Chemical Engineering, Columbia University  
**2009:** Co-invented “Optimized Production and Stability of Oxygen Microbubbles” (US 61/237,892)  
**2008-2012:** Dean’s List, Columbia University  
**2008:** AP Scholar with Distinction  
**2008:** National Merit Finalist

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#### **LICENSES & CERTIFICATIONS**

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**2023:** Applied Machine Learning – Issued by Emeritus, Columbia University, Engineering; <https://certificates.emeritus.org/cac50ed1-45b7-4b78-b08f-275b1db28ff5>  
**2023 – 2025:** NY State Medical License  
**2023 – 2025:** NJ State Medical License  
**2024 – 2026:** IL State Medical License  
**2023:** ABOS Part I Exam: Passed | ABOS Part II Oral Exam: ABOS Board Eligible

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#### **PROFESSIONAL SOCIETIES**

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**2011 – Present:** Tau Beta Pi Engineering Honor Society, New York Alpha Chapter

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#### **PEER-REVIEW JOURNAL REVIEWER**

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**2021 – Present:** Global Spine Journal (GSJ)  
**2021 – Present:** Journal of Spine Surgery (JSS)

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#### **PEER-REVIEWED PUBLICATIONS**

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1. Lee NJ, Guzman JZ, Kim J, Skovrlj B, Martin CT, Pugely AJ, Gao Y, Caridi JM, Mendoza-Lattes S, Cho SK. A Comparative Analysis Among the SRS M&M, NIS, and KID Databases for the Adolescent Idiopathic Scoliosis. *Spine deformity*. 2016;4(6):420-4.
2. Kothari P, Lee NJ, Lakomkin N, Leven DM, Shin JI, Guzman JZ, Skovrlj B, Steinberger J, Cho SK. Impact of Resident Involvement on Morbidity in Adult Patients Undergoing Fusion for Spinal Deformity. *Spine*. 2016;41(16):1296-302.

3. Kothari P, Lee NJ, Leven DM, Lakomkin N, Shin JI, Skovrlj B, Steinberger J, Guzman JZ, Cho SK. Impact of Gender on 30-Day Complications After Adult Spinal Deformity Surgery. *Spine*. 2016;41(14):1133-8.
4. Leven DM, Lee NJ, Kothari P, Steinberger J, Guzman J, Skovrlj B, Shin JI, Caridi JM, Cho SK. Frailty Index Is a Significant Predictor of Complications and Mortality After Surgery for Adult Spinal Deformity. *Spine*. 2016;41(23):E1394-e401.
5. Li L, Lee NJ, Glicksberg BS, Radbill BD, Dudley JT. Data-Driven Identification of Risk Factors of Patient Satisfaction at a Large Urban Academic Medical Center. *PloS one*. 2016;11(5):e0156076.
6. Martin CT, Pugely AJ, Gao Y, Skovrlj B, Lee NJ, Cho SK, Mendoza-Lattes S. Reliability Of A Surgeon-Reported Morbidity And Mortality Database: A Comparison Of Short-Term Morbidity Between The Scoliosis Research Society And National Surgical Quality Improvement Program Databases. *The Iowa orthopaedic journal*. 2016;36:147-54.
7. Shin JI, Lee NJ, Cho SK. Pediatric Cervical Spine and Spinal Cord Injury: A National Database Study. *Spine*. 2016;41(4):283-92.
8. Steinberger J, Skovrlj B, Lee NJ, Kothari P, Leven DM, Guzman JZ, Shin J, Shrivastava R, Caridi JM, Cho SK. Surgical Morbidity and Mortality Associated With Transoral Approach to the Cervical Spine. *Spine*. 2016;41(9):E535-40.
9. Bronheim RS, Kim JS, Di Capua J, Lee NJ, Kothari P, Somani S, Phan K, Cho SK. High-Risk Subgroup Membership Is a Predictor of 30-Day Morbidity Following Anterior Lumbar Fusion. *Global spine journal*. 2017;7(8):762-9.
10. Di Capua J, Somani S, Kim JS, Lee NJ, Kothari P, Phan K, Lugo-Fagundo N, Cho SK. Predictors for Patient Discharge Destination After Elective Anterior Cervical Discectomy and Fusion. *Spine*. 2017;42(20):1538-44.
11. Di Capua J, Somani S, Kim JS, Leven DM, Lee NJ, Kothari P, Cho SK. Hospital-Acquired Conditions in Adult Spinal Deformity Surgery: Predictors for Hospital-Acquired Conditions and Other 30-Day Postoperative Outcomes. *Spine*. 2017;42(8):595-602.
12. Di Capua J, Somani S, Kim JS, Phan K, Lee NJ, Kothari P, Cho SK. Analysis of Risk Factors for Major Complications Following Elective Posterior Lumbar Fusion. *Spine*. 2017;42(17):1347-54.
13. Di Capua J, Somani S, Kim JS, Phan K, Lee NJ, Kothari P, Cho SK. Elderly Age as a Risk Factor for 30-Day Postoperative Outcomes Following Elective Anterior Cervical Discectomy and Fusion. *Global spine journal*. 2017;7(5):425-31.
14. Kothari P, Somani S, Lee NJ, Guzman JZ, Leven DM, Skovrlj B, Steinberger J, Kim J, Cho SK. Thirty-Day Morbidity Associated with Pelvic Fixation in Adult Patients Undergoing Fusion for Spinal Deformity: A Propensity-Matched Analysis. *Global spine journal*. 2017;7(1):39-46.
15. Lee NJ, Kothari P, Kim JS, Phan K, Di Capua J, Shin J, Cho SK. Nutritional Status as an Adjunct Risk Factor for Early Postoperative Complications Following Posterior Cervical Fusion. *Spine*. 2017;42(18):1367-74.
16. Lee NJ, Kothari P, Kim JS, Shin JI, Phan K, Di Capua J, Somani S, Leven DM, Guzman JZ, Cho SK. Early Complications and Outcomes in Adult Spinal Deformity Surgery: An NSQIP Study Based on 5803 Patients. *Global spine journal*. 2017;7(5):432-40.
17. Lee NJ, Shin JI, Kothari P, Kim JS, Leven DM, Steinberger J, Guzman JZ, Skovrlj B, Caridi JM, Cho SK. Incidence, Impact, and Risk Factors for 30-Day Wound Complications Following Elective Adult Spinal Deformity Surgery. *Global spine journal*. 2017;7(5):417-24.

18. Leven DM, Lee NJ, Kim JS, Kothari P, Steinberger J, Guzman J, Skovrlj B, Shin JI, Phan K, Caridi JM, Cho SK. Frailty Is Predictive of Adverse Postoperative Events in Patients Undergoing Lumbar Fusion. *Global spine journal*. 2017;7(6):529-35.
19. Phan K, Dunn AE, Kim JS, Capua JD, Somani S, Kothari P, Lee NJ, Xu J, Dowdell JE, Cho SK. Impact of Preoperative Anemia on Outcomes in Adults Undergoing Elective Posterior Cervical Fusion. *Global spine journal*. 2017;7(8):787-93.
20. Phan K, Kim JS, Capua JD, Lee NJ, Kothari P, Dowdell J, Overley SC, Guzman JZ, Cho SK. Impact of Operation Time on 30-Day Complications After Adult Spinal Deformity Surgery. *Global spine journal*. 2017;7(7):664-71.
21. Phan K, Kim JS, Lee NJ, Kothari P, Cho SK. Impact of Insulin Dependence on Perioperative Outcomes Following Anterior Cervical Discectomy and Fusion. *Spine*. 2017;42(7):456-64.
22. Phan K, Kim JS, Lee NJ, Kothari P, Cho SK. Relationship Between ASA Scores and 30-Day Readmissions in Patients Undergoing Anterior Cervical Discectomy and Fusion. *Spine*. 2017;42(2):85-91.
23. Phan K, Kim JS, Lee NJ, Somani S, Di Capua J, Kothari P, Leven D, Cho SK. Frailty is associated with morbidity in adults undergoing elective anterior lumbar interbody fusion (ALIF) surgery. *The spine journal : official journal of the North American Spine Society*. 2017;17(4):538-44.
24. Phan K, Kothari P, Lee NJ, Virk S, Kim JS, Cho SK. Impact of Obesity on Outcomes in Adults Undergoing Elective Posterior Cervical Fusion. *Spine*. 2017;42(4):261-6.
25. Phan K, Wang N, Kim JS, Kothari P, Lee NJ, Xu J, Cho SK. Effect of Preoperative Anemia on the Outcomes of Anterior Cervical Discectomy and Fusion. *Global spine journal*. 2017;7(5):441-7.
26. Shin JI, Kothari P, Phan K, Kim JS, Leven D, Lee NJ, Cho SK. Frailty Index as a Predictor of Adverse Postoperative Outcomes in Patients Undergoing Cervical Spinal Fusion. *Spine*. 2017;42(5):304-10.
27. Somani S, Capua JD, Kim JS, Phan K, Lee NJ, Kothari P, Kim JH, Dowdell J, Cho SK. ASA Classification as a Risk Stratification Tool in Adult Spinal Deformity Surgery: A Study of 5805 Patients. *Global spine journal*. 2017;7(8):719-26.
28. Somani S, Di Capua J, Kim JS, Kothari P, Lee NJ, Leven DM, Cho SK. Comparing National Inpatient Sample and National Surgical Quality Improvement Program: An Independent Risk Factor Analysis for Risk Stratification in Anterior Cervical Discectomy and Fusion. *Spine*. 2017;42(8):565-72.
29. Cutler HS, Guzman JZ, Lee NJ, Kothari P, Kim JS, Shin JI, Leven DM, Cho SK. Short-Term Complications of Anterior Fixation of Odontoid Fractures. *Global spine journal*. 2018;8(1):47-56.
30. Di Capua J, Lugo-Fagundo N, Somani S, Kim JS, Phan K, Lee NJ, Kothari P, Vig KS, Cho SK. Diabetes Mellitus as a Risk Factor for Acute Postoperative Complications Following Elective Adult Spinal Deformity Surgery. *Global spine journal*. 2018;8(6):615-21.
31. Di Capua J, Somani S, Lugo-Fagundo N, Kim JS, Phan K, Lee NJ, Kothari P, Shin J, Cho SK. Predictors for Non-Home Patient Discharge Following Elective Adult Spinal Deformity Surgery. *Global spine journal*. 2018;8(3):266-72.
32. Lakomkin N, Mistry AM, Zuckerman SL, Ladner T, Kothari P, Lee NJ, Stannard B, Vasquez RA, Cheng JS. Utility of Intraoperative Monitoring in the Resection of Spinal Cord Tumors: An Analysis by Tumor Location and Anatomical Region. *Spine*. 2018;43(4):287-94.

33. Lee NJ, Kothari P, Kim C, Leven DM, Skovrlj B, Guzman JZ, Steinberger J, Cho SK. The Impact of Resident Involvement in Elective Posterior Cervical Fusion. *Spine*. 2018;43(5):316-23.
34. Lee NJ, Kothari P, Phan K, Shin JI, Cutler HS, Lakomkin N, Leven DM, Guzman JZ, Cho SK. Incidence and Risk Factors for 30-Day Unplanned Readmissions After Elective Posterior Lumbar Fusion. *Spine*. 2018;43(1):41-8.
35. Phan K, Cheung ZB, Lee NJ, Kothari P, DiCapua J, Arvind V, White SJW, Ranson WA, Kim JS, Cho SK. Primary Versus Revision Discectomy for Adults With Herniated Nucleus Pulposus: A Propensity Score-Matched Multicenter Study. *Global spine journal*. 2018;8(8):810-5.
36. Phan K, Kim JS, Xu J, Di Capua J, Lee NJ, Kothari P, Vig KS, Dowdell J, Cho SK. Nutritional Insufficiency as a Predictor for Adverse Outcomes in Adult Spinal Deformity Surgery. *Global spine journal*. 2018;8(2):164-71.
37. Phan K, Lee NJ, Kothari P, Kim JS, Cho SK. Risk Factors for Readmissions Following Anterior Lumbar Interbody Fusion. *Spine*. 2018;43(5):364-9.
38. Ranson WA, Cheung ZB, Di Capua J, Lee NJ, Ukogu C, Jacobs S, Vig KS, Kim JS, White SJW, Cho SK. Risk Factors for Perioperative Complications in Morbidly Obese Patients Undergoing Elective Posterior Lumbar Fusion. *Global spine journal*. 2018;8(8):795-802.
39. Steinberger J, Bronheim RS, Vempati P, Oermann EK, Ladner TR, Lee NJ, Kothari P, Caridi JM, Shrivastava RK. Morbidity and Mortality of Meningioma Resection Increases in Octogenarians. *World neurosurgery*. 2018;109:e16-e23.
40. Ukogu CO, Jacobs S, Ranson WA, Somani S, Vargas L, Lee NJ, Di Capua J, Kim JS, Vig KS, Cho SK. Preoperative Nutritional Status as a Risk Factor for Major Postoperative Complications Following Anterior Lumbar Interbody Fusion. *Global spine journal*. 2018;8(7):662-7.
41. Hersh EH, Sarkiss CA, Ladner TR, Lee NJ, Kothari P, Lakomkin N, Caridi JM. Perioperative Risk Factors for Thirty-Day Morbidity and Mortality in the Resection of Extradural Thoracic Spine Tumors. Published in *World Neurosurgery* on September 3, 2018.
42. Sarkiss CA, Hersh EH, Ladner TR, Lee NJ, Kothari P, Lakomkin N, Caridi JM. Risk Factors for Thirty-Day Morbidity and Mortality in Extradural Lumbar Spine Tumor Resection. Published in *World Neurosurgery* on March 31, 2018.
43. Boddapati V, Held MB, Lee NJ, Geller JA, Cooper HJ, Shah RP. Is the time to revision surgery after peri-prosthetic fracture of the knee associated with increased rates of post-operative complications? *Arthroplasty today*. 2019;5(3):348-51.
44. Phan K, Ranson W, White SJW, Cheung ZB, Kim J, Shin JI, Ukogu C, Lee NJ, Kothari P, Cho SK. Thirty-Day Perioperative Complications, Prolonged Length of Stay, and Readmission Following Elective Posterior Lumbar Fusion Associated With Poor Nutritional Status. *Global spine journal*. 2019;9(4):417-23.
45. Phan K, Vig KS, Ho YT, Hussain AK, Di Capua J, Kim JS, White SJW, Lee NJ, Kothari P, Cho SK. Age Is a Risk Factor for Postoperative Complications Following Excisional Laminectomy for Intradural Extramedullary Spinal Tumors. *Global spine journal*. 2019;9(2):126-32.
46. Knoll OM, Lakomkin N, Shen MS, Adebayo M, Kothari P, Dodd AC, Attum B, Lee NJ, Chona D, Sethi MK. A predictive model for increased hospital length of stay following geriatric hip fracture. Published in *Journal of Clinical Orthopaedics and Trauma* on April 1, 2019.

47. Boddapati V, Lee NJ, Mathew J, Vulapalli MM, Lombardi JM, Dyrszka MD, Sardar ZM, Lehman RA, Riew KD. Hybrid Anterior Cervical Discectomy and Fusion and Cervical Disc Arthroplasty: An Analysis of Short-Term Complications, Reoperations, and Readmissions. *Global spine journal*. 2020;2192568220941453.
48. Joaquim AF, Lee NJ, Lehman RA, Jr., Tumialán LM, Riew KD. Osteolysis after cervical disc arthroplasty. *European spine journal : official publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society*. 2020;29(11):2723-33.
49. Joaquim AF, Lee NJ, Lehman RA, Jr., Tumialán LM, Jr., Riew KD. Answer to the "Letter to the Editor of Wu TK, et al. concerning "Osteolysis after cervical disc arthroplasty" by Joaquim AF, et al. (*Eur Spine J*; [2020]: doi: 10.1007/s00586-020-06578-2)". *European spine journal : official publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society*. 2020;29(12):3249-50.
50. Lee NJ, Fields M, Boddapati V, Mathew J, Hong D, Sardar ZM, Selber PR, Roye B, Vitale MG, Lenke LG. Spinal Deformity Surgery in Pediatric Patients With Cerebral Palsy: A National-Level Analysis of Inpatient and Postdischarge Outcomes. *Global spine journal*. 2020;2192568220960075.
51. Lee NJ, Kim JS, Park P, Riew KD. A Comparison of Various Surgical Treatments for Degenerative Cervical Myelopathy: A Propensity Score Matched Analysis. *Global spine journal*. 2020;2192568220976092.
52. Lee NJ, Lenke LG, Cerpa M, Lombardi J, Ha A, Park P, Leung E, Sardar ZM, Lehman RA. The 90-Day Reoperations and Readmissions in Complex Adult Spinal Deformity Surgery. *Global spine journal*. 2020;2192568220953391.
53. Lee NJ, Sardar ZM, Boddapati V, Mathew J, Cerpa M, Leung E, Lombardi J, Lenke LG, Lehman RA. Can Machine Learning Accurately Predict Postoperative Compensation for the Uninstrumented Thoracic Spine and Pelvis After Fusion From the Lower Thoracic Spine to the Sacrum? *Global spine journal*. 2020;2192568220956978.
54. Lee NJ, Vulapalli M, Park P, Kim JS, Boddapati V, Mathew J, Amorosa LF, Sardar ZM, Lehman RA, Riew KD. Does screw length for primary two-level ACDF influence pseudarthrosis risk? *The Spine Journal: official journal of the North American Spine Society*. 2020;20(11):1752-60.
55. Lopez CD, Boddapati V, Lee NJ, Dyrszka MD, Sardar ZM, Lehman RA, Lenke LG. Three-Dimensional Printing for Preoperative Planning and Pedicle Screw Placement in Adult Spinal Deformity: A Systematic Review. *Global spine journal*. 2020;2192568220944170.
56. Lopez CD, Boddapati V, Lombardi JM, Cerpa MK, Lee NJ, Mathew J, Sardar ZM, Lenke LG, Lehman RA. Medicare Utilization and Reimbursement for Vertebroplasty and Kyphoplasty: A National Analysis From 2012-2017. *Spine*. 2020;45(24):1744-50.
57. Lopez CD, Boddapati V, Lombardi JM, Lee NJ, Saifi C, Dyrszka MD, Sardar ZM, Lenke LG, Lehman RA. Recent trends in medicare utilization and reimbursement for lumbar spine fusion and discectomy procedures. *The spine journal : official journal of the North American Spine Society*. 2020;20(10):1586-94.
58. Boddapati V, Lee NJ, Mathew J, Held MB, Peterson JR, Vulapalli MM, Lombardi JM, Dyrszka MD, Sardar ZM, Lehman RA, Riew KD. Respiratory Compromise After Anterior Cervical Spine Surgery: Incidence, Subsequent Complications, and Independent Predictors. *Global spine journal*. 2021;2192568220984469.
59. Boddapati V, Mathew J, Lee NJ, Peterson JR, McCormick KL, Lombardi JM, Sardar ZM, Lehman RA, Riew KD. Are outpatient three- and four-level anterior cervical

- discectomies and fusion safe? *The Spine Journal: official journal of the North American Spine Society*. 2021;21(2):231-8.
60. Fields MW, Lee NJ, Ball JR, Boddapati V, Mathew J, Hong D, Coury JR, Sardar ZM, Roye B, Vitale M, Lenke LG. Spinal fusion in pediatric patients with marfan syndrome: a nationwide assessment on short-term outcomes and readmission risk. *European spine journal: official publication of the European Spine Society, the European Spinal Deformity Society, and the European Section of the Cervical Spine Research Society*. 2021;30(3):775-87.
  61. Fields MW, Lee NJ, Hong DY, Para A, Boddapati V, Mathew J, Kim JS, Lombardi J, Lehman RA, Riew KD. Cervical Spinal Fusion in Adult Patients With Rheumatoid Arthritis: A National Analysis of Complications and 90-day Readmissions. *Spine*. 2021;46(1):E23-e30.
  62. Ha AS, Lee NJ, Blake R, Mathew J, Cerpa M, Lenke LG. Can spinal deformity patients maintain proper arm positions while undergoing full-body X-ray? *Spine deformity*. 2021;9(2):387-94.
  63. Joaquim AF, Lee NJ, Riew KD. Circumferential Operations of the Cervical Spine. *Neurospine*. 2021;18(1):55-66.
  64. Joaquim AF, Lee NJ, Riew KD. Revision Surgeries at the Index Level After Cervical Disc Arthroplasty - A Systematic Review. *Neurospine*. 2021;18(1):34-44.
  65. Lee NJ, Boddapati V, Mathew J, Fields M, Vulapalli M, Kim JS, Lombardi JM, Sardar ZM, Lehman RA, Riew KD. What Is the Impact of Surgical Approach in the Treatment of Degenerative Cervical Myelopathy in Patients With OPLL? A Propensity-Score Matched, Multi-Center Analysis on Inpatient and Post-Discharge 90-Day Outcomes. *Global spine journal*. 2021:2192568221994797.
  66. Lee NJ, Cerpa M, Leung E, Sardar ZM, Lehman RA, Lenke LG. Do readmissions and reoperations adversely affect patient-reported outcomes following complex adult spinal deformity surgery at a minimum 2 years postoperative? *Spine deformity*. 2021;9(3):789-801.
  67. Lee NJ, Joaquim AF, Boddapati V, Mathew J, Park P, Kim JS, Sardar ZM, Lehman RA, Riew KD. Revision Anterior Cervical Disc Arthroplasty: A National Analysis of the Associated Indications, Procedures, and Postoperative Outcomes. *Global spine journal*. 2021:2192568220979140.
  68. Lee NJ, Mathew J, Kim JS, Lombardi JM, Vivas AC, Reidler J, Zuckerman SL, Park PJ, Leung E, Cerpa M, Weidenbaum M, Lenke LG, Lehman RA, Sardar ZM. Flexion-extension standing radiographs underestimate instability in patients with single-level lumbar spondylolisthesis: comparing flexion-supine imaging may be more appropriate. *Journal of spine surgery (Hong Kong)*. 2021;7(1):48-54.
  69. Park PJ, Makhni MC, Cerpa M, Beauchamp EC, Lee NJ, Lehman RA, Lenke LG. The role of ketamine in opioid-free spinal deformity surgery: is it possible and beneficial? *Journal of spine surgery (Hong Kong)*. 2021;7(1):55-61.
  70. Lopez C, Boddapati V, Lee NJ, Dyrzka M, Sardar ZM, Lehman RA, Lenke LG. Three-Dimensional Printing Applications in the Treatment of Adult Spinal Deformities: A Systematic Review. *Global Spine J* 2020. DOI: 10.1177/2192568220944170
  71. Lee NJ, Fields M, Boddapati V, Cerpa M, Dansby J, Blake R, Lin JD, Lehman RA, Lenke LG. The Risks, Reasons, and Costs for 30- and 90-day Readmissions After Adolescent Idiopathic Scoliosis Surgery. *Journal of Neurosurgery: Spine* 2020. DOI: 10.3171/2020.6.SPINE20197
  72. Fields MW, Lee NJ, McCormick K, Park PJ, Boddapati V, Cerpa M, Kim JS, Sardar ZM, Lenke LG. (2021). "A National Analysis on Complications and Readmissions for

- Adult Cerebral Palsy Patients Undergoing Primary Spinal Fusion Surgery.” Accepted to European Spine Journal on December 23, 2021.
73. Ha AS, Tuchman A, Matthew J, Lee NJ, Cerpa M, Lehman RA, Lenke LG. Intraoperative versus postoperative radiographic coronal balance for adult spinal deformity surgery. *Spine Deform*. 2021 Feb 24. doi: 10.1007/s43390-021-00297-4. Epub ahead of print. PMID: 33625662.
  74. Ha as, Luzzi AJ, Cerpa M, Mathew J, Park PJ, Lombardi JM, Lee NJ, Dyrszka MD, Sardar ZM, Lehman RA, Lenke LG. Femoral Head to Lower Lumbar Neural Foramen Distance as a Novel Radiographic Parameter to Predict Postoperative Stretch Neuropraxia. *Journal of Neurosurgery: Spine* 2021.
  75. Lee NJ, Lombardi JM, Boddapati V, Mathew J, Leung E, Lehman RA. Clinical and Patient-Reported Outcomes After Robot-Assisted Short-Segment Lumbar Fusion with a Minimum 1-Year Follow up. *Interdisciplinary Neurosurgery*, 2021. 25: p. 101168. <https://doi.org/10.1016/j.inat.2021.101168>
  76. Joaquim AF, Lee NJ, Riew KD. Revision Surgeries at the Index Level After Cervical Disc Arthroplasty - A Systematic Review. *Neurospine*. 2021 Mar;18(1):34-44. doi: 10.14245/ns.2040454.227. Epub 2021 Mar 31. PMID: 33819934; PMCID: PMC8021828.
  77. Lee NJ, Boddapati V, Mathew J, Marciano G, Fields M, Buchanan IA, Zuckerman SL, Park PJ, Leung E, Lombardi JM, Lehman RA. Does robot-assisted spine surgery for multi-level lumbar fusion achieve better patient-reported outcomes than free-hand techniques? *Interdisciplinary Neurosurgery*, 2021. 25: p. 101214. <https://doi.org/10.1016/j.inat.2021.101214>
  78. Lee NJ, Buchanan IA, Boddapati V, Mathew J, Marciano G, Park PJ, Leung E, Buchholz AL, Khan A, Pollina J, Jazini E, Haines C, Schuler TC, Good CR, Lombardi JM, Lehman RA. Do robot-related complications influence 1 year reoperations and other clinical outcomes after robot-assisted lumbar arthrodesis? A multicenter assessment of 320 patients. *J Orthop Surg Res* 16, 308 (2021). <https://doi.org/10.1186/s13018-021-02452-z>
  79. Lee NJ, Zuckerman SL, Buchanan IA, Boddapati V, Mathew J, Leung E, Park PJ, Pham MH, Buchholz AL, Khan A, Pollina J, Mullin JP, Jazini E, Haines C, Schuler TC, Good CR, Lombardi JM, Lehman RA. Is There a Difference Between Navigated and Non-Navigated Robot Cohorts in Robot-Assisted Spine Surgery? A Multicenter, Propensity-Matched Analysis of 2,800 Screws and 372 Patients. *Spine J*. 2021 May 19:S1529-9430(21)00253-9. doi: 10.1016/j.spinee.2021.05.015. Epub ahead of print. PMID: 34022461.
  80. Zuckerman SL, Lai C, Shen Y, Cerpa M, Lee NJ, Kerolus M, Ha AS, Buchanan IA, Devin C, Lehman RA, Lenke LG. Do Adult Spinal Deformity Patients Undergoing Surgery Continue to Improve from 1-year to 2-years Postoperative?” *Global Spine Journal*. Accepted May 5, 2021.
  81. Mathew J, Lee NJ, Boddapati V, Marciano G, Sardar ZM, Lenke LG. Comparing Hyperlordotic and Standard Lordotic Cages for Achieving Segmental Lumbar Lordosis During Transforaminal Lumbar Interbody Fusion in Adult Spinal Deformity Surgery. *Journal of Spine Surgery* 2021. Accepted April 2, 2021.
  82. Lee NJ, Khan A, Lombardi JM, Boddapati V, Park PJ, Mathew J, Leung E, Mullin JP, Pollina J, Lehman RA. The Accuracy of Robot-Assisted S2 Alar-Iliac Screw Placement at Two Different Healthcare Centers. *Journal of Spine Surgery* 2021. Accepted April 7, 2021.
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84. Zuckerman SL, Lai CS, Shen Y, Lee NJ, Kerolus MG, Ha AS, Buchanan IA, Leung E, Cerpa M, Lehman RA, Lenke LG. Incidence and risk factors for iatrogenic coronal malalignment after adult spinal deformity surgery: a single center experience. Submitted to *Journal of Neurosurgery: Spine*. Accepted June 11, 2021.
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86. Crutchfield CR, Zhong J, Lee NJ, Trofa DP, Lynch TS. Resident Involvement in Hip Arthroscopy Procedures Does Not Affect Short-Term Surgical Outcomes. *Arthrosc, Sports Med, Rehabil*. Accepted on June 25, 2021
87. Lopez C, Boddapati V, Lombardi JM, Lee NJ, Mathew J, Danford NC, Iyer R, Dyrzka MD, Sardar ZM, Lenke LG, Lehman RA. Artificial Learning and Machine Learning Applications in Spine Surgery: A Systematic Review. *Global Spine Journal*. Accepted on September 9, 2021.
88. Sardar ZM, Coury JR, Cerpa M, DeWald CJ, Ames C, Shuhart C, Watkins C, Polly D, Dirschl DR, Klineberg E, Dimar JR, Krohn K, Kebaish K, Tosi L, Kelly M, Lane NE, Binkley N, Berven S, Lee NJ, Anderson P, Angevine P, Lehman RA, Lenke LG. Best Practice Guidelines for Assessment & Management of Osteoporosis in Adult Patients Undergoing Elective Spinal Reconstruction. *Spine*. Accepted on September 13, 2021.
89. Zuckerman SL, Lai CS, Shen Y, Kerolus MG, Ha AS, Buchanan IA, Lee NJ, Leung E, Cerpa M, Lehman RA, Lenke LG. Be Prepared: Preoperative Coronal Malalignment Often Leads to More Extensive Surgery Than Sagittal Malalignment During Adult Spinal Deformity Surgery. *Neurospine*. Accepted on July 25, 2021.
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92. Danford NC, Boddapati V, Simhon ME, Lee NJ, Mathew J, Lombardi JM, Sardar ZM, Lenke LG, Lehman RA. Clinical Trial Quality Assessment in Adult Spinal Surgery: Trial Design, Intervention, Type, and Publication Status. Accepted to *Global Spine Journal* on December 23, 2021.
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108. Lee NJ, Lombardi JM, Lehman RA. Artificial Intelligence and Machine Learning Applications in Spine Surgery. Accepted to International Journal of Spine Surgery on February 9, 2023.
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112. Lin JD, Schupper AJ, MD, Matthew J, Lee NJ, Osorio JA, Marciano G, Lombardi JM, Sardar ZM, Lehman RA, Lenke LG. A New Objective Radiographic Criteria for Diagnosis of Adult Idiopathic Scoliosis: Apical Pedicle Diameter Asymmetry. Accepted to World Neurosurgery on March 20, 2022.
113. Lee NJ and Lehman RA. Current Evidence for Hybrid Constructs: Simultaneous ACDF/Arthroplasty and Arthroplasty adjacent to Previous ACDF. Accepted to Clinical Spine Surgery on August 22, 2023.
114. Lee NJ and Lehman RA. Surgical Treatment Options for the Younger and Older Patient with Progressive Adult Spinal Deformity. The Spine Health Journal on October 7, 2023.
115. Zhong J, Crutchfield C, Ahmad CS, Lee NJ, Trofa DP, Padaki A, Lynch TS. Increased Age and Modified Fragility Index Increases Risk of Short-term Complications After Anterior Cruciate Ligament Reconstruction Surgery. Accepted to The Knee on October 31, 2023.
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120. Lee NJ, Lombardi JM, Qureshi S, Lehman RA. Robot-Assisted Spine Surgery: The Pearls and Pitfalls. JAAOS (Accepted August 10, 2024).
121. Lee NJ, Lenke LG, Arvind V, Shi T, Dionne A, Nnake C, Yearly M, Fields M, Simhon M, Ferraro A, Cooney M, Lewerenz E, Reyes JL, Roth S, Hung CW, Scheer JK, Zervos T, Thuet ED, Lombardi JM, Sardar ZM, Lehman RA, Roye BD, Vitale MG, Hassan FM. Does an improvement in cord-level intraoperative neuromonitoring data lead to a reduced risk for postoperative neurologic deficit in spine deformity surgery? Spine Deformity. August 8, 2024.
122. Fields M, Zaifman J, Malka M, Lee NJ, Raymond C, Simhon M, Quan T, Roye BD, Vitale MG. Utilizing a Comprehensive Machine Learning Approach to Identify Patients at High Risk for Extended Length of Stay Following Spinal Deformity Surgery in Pediatric Patients with Early Onset Scoliosis. Spine Deformity. May 3, 2024.
123. Lai C, Mohanty S, Taber CE, Williams JL, Lee NJ, Hassan F, Sardar ZM, Lehman RA, Lenke LG. The Cranial Sagittal Vertical Axis to the Hip (CrSVA-H) is the Best Sagittal Alignment Predictor of Patient Reported Outcomes at 2 Years Postoperative in Adult Spinal Deformity Surgery. Journal of Neurosurgery: Spine. August 23, 2024.

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**MANUSCRIPTS SUBMITTED FOR PEER REVIEW**

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1. Zuckerman SL, Lai C, Shen Y, Cerpa M, Kerolus M, Ha AS, Buchannan IA, Lee NJ, Leung E, Sardar ZM, Lehman RA, Lenke LG. Establishing a Threshold of Impairment to Define Preoperative Coronal Malalignment in Adult Spinal Deformity Patients. Submitted to Journal of Neurosurgery: Spine on April 28, 2021.
2. Lombardi JM, Lai C, Kim JS, Vivas A, Reidler J, Lee NJ, Leung E, Cerpa M, Lenke LG, Lehman RA. The Quantitative Impact of OLIF on Segmental Correction in the Degenerative Spine. Submitted to Global Spine Journal on April 15, 2021.
3. Mathew J, Boddapati V, Lee NJ, Ha AS, Vitale MG, Sardar ZM. Is Anterior Vertebral Body Tethering Better Than Posterior Spinal Fusion in the Management of Adolescent Idiopathic Scoliosis? A Review of the Literature. Submitted to Journal of Pediatric Orthopaedics on May 26, 2021.
4. Osorio J, Lee NJ et al. Is Obtaining a CT Prior to Offering Disc Arthroplasty Necessary? The Results of Surgeons Predicting ACDA Candidacy from MRIs and X-Rays Alone. Submitted to Spine on April 2, 2021.

5. Mehta S, Boddapati V, Danford NC, Hirase T, Lee NJ, Dyrszka MD, Lombardi JM, Sardar ZM, Lenke LG, Lehman RA. Uninsured Patients Are Less Likely to Undergo Diagnostic and Therapeutic Procedures Following Traumatic Spine Injury. Submitted to The Spine Journal on May 29, 2022.
6. Lin JD, Schupper AJ, MD, Matthew J, Lee NJ, Osorio JA, Marciano G, Lombardi JM, Sardar ZM, Lehman RA, Lenke LG. A New Objective Radiographic Criteria for Diagnosis of Adult Idiopathic Scoliosis: Apical Pedicle Diameter Asymmetry. Submitted to World Neurosurgery on March 20, 2022.
7. Fthimnir M. Hassan; Sarthak Mohanty; Erik Lewerenz; Christopher Mikhail; Stephen Stephan; Andrew Platt; Joshua Baksheshian; **Nathan J. Lee**; Justin Reyes; Gabriella Greisberg; Joseph M. Lombardi; Zeeshan M. Sardar; Ronald A. Lehman; Lawrence G. Lenke. "Comparing Three and Four-Rod Constructs in Adult Spinal Deformity Patients with Long Fusions to the Sacrum: Is There a Difference in Rod Fractures and Revision Rates at Minimum 2-year Follow-up?" Submitted to Spine Deformity on April 25, 2023
8. Mikhail C, Mohanty S, Lai C, Stephan S, Platt A, Lee NJ, Lombardi JM, Sardar ZM, Lehman RA, Lenke LG. Global Alignment Following Adult Spine Deformity Surgery is Vital to Long-Term Improvement of Patient Reported Outcomes regardless of Regional Alignment. Submitted to JNS: Spine on December 13, 2023.

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#### **TEXTBOOK CHAPTERS**

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1. **Nathan J. Lee**, Eduardo C. Beauchamp, Lawrence G. Lenke. Spinal Deformities: The Comprehensive Text 2nd Edition. "Avoiding Neurologic Deficits in Spinal Deformity Surgery." Thieme Medical Publishers Inc. 2019.
2. **Nathan J. Lee** and Ronald A. Lehman. The Fellows Manual: Techniques of Spine Surgery. "Thoracolumbar Instrumentation." Jaypee Brothers Medical Publishers. 2019.
3. Joseph M. Lombardi, **Nathan J. Lee**, Ronald A. Lehman. Benzel's Spine Surgery 5th Edition. "Pseudarthrosis." Elsevier. 2020.
4. **Nathan J. Lee**, Andrei Joaquim, K. Daniel Riew. Treatment of Spine Disease in the Elderly: Cutting Edge Techniques and Technologies. "Anterior vs. Posterior Approach to the Cervical Spine in the Elderly." Springer Book. 2020.
5. Justin Mathew, Joseph M. Lombardi, Venkat Boddapati, **Nathan J. Lee**, Ronald A. Lehman. "Complex Thoracolumbar Spinal Deformity Surgery." Advanced Robotic Spine Surgery: A Case-Based Approach. Edited by Dr. Michael Y. Wang, William Steele, and Timur Urakov. 2020.
6. **Nathan J. Lee**, Carolyn T. Quiles Luna, Lawrence G. Lenke. Spondylolisthesis – Diagnosis, Non-Surgical Management, and Surgical Techniques 2<sup>nd</sup> Edition. "Complications Associated with Surgical Treatment of Pediatric and Adult Spondylolisthesis." Springer. 2022
7. Matthew E. Simhon, Gerard F. Marciano, **Nathan J. Lee**, Ronald A. Lehman. Robotic Navigation: Applications Beyond Instrumentation. Springer. 2023.
8. Gerard F. Marciano, Matthew E. Simhon, **Nathan J. Lee**, Ronald A. Lehman. Robotic Navigation: Summary of Clinical Results. Springer. 2023.
9. **Nathan J. Lee**, Eugene Hung, Joseph M. Lombardi, Ronald A. Lehman. Benzel's Spine Surgery 6th Edition. "Common Complications in Spine Surgery: Pseudarthrosis." Elsevier. SUBMITTED February 16<sup>th</sup>, 2024.

10. Eugene Hung, Nathan J. Lee, Joseph M. Lombardi, Ronald A. Lehman. Benzel's Spine Surgery 6th Edition. "Navigation of Robotics." Elsevier. SUBMITTED February 16<sup>th</sup>, 2024.
11. Michael Fields, Nathan J. Lee, Ronald A. Lehman Jr. Seminars in Spine Surgery – Medicolegal Challenges in Spine Care. "Implications of Artificial Intelligence." ACCEPTED on July 7<sup>th</sup>, 2024.

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## **PODIUM PRESENTATIONS (FIRST AUTHOR ONLY)**

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### **ACS NSQIP Annual Conference**

1. "Obesity Classification as a Predictor for Adverse 30-Day Postoperative Events Following Elective Posterior Lumbar Fusion Surgery." ACS NSQIP Annual Conference 2017. New York, NY.

### **Cervical Spine Research Society**

2. "A Comparative Analysis of Surgical Approach in the Treatment of Cervical Myelopathy in Patients with OPLL: A Propensity-Score Matched, Multi-center Analysis on Inpatient and Post-discharge 90-day Outcomes." CSRS 2020. Las Vegas, Nevada.
3. "Does Screw Length for Primary Two-level ACDF Influence Pseudarthrosis Risk?" 2nd Place Resident/Fellow Award. CSRS 2020. Las Vegas, Nevada.

### **Global Spine Congress**

4. "The Effect of Increased Age On Perioperative Outcomes In Adult Idiopathic Scoliosis." Global Spine Congress 2019. Toronto, Canada.
5. "A Predictive Model for Early Reoperations and Readmissions in Adult Spinal Deformity Surgery." Global Spine Congress 2020. Rio de Janeiro, Brazil.
6. "A National Perspective on the Morbidity and Readmission Risk for Patients with Ossification of the Posterior Longitudinal Ligament Undergoing Cervical Spine Surgery." Global Spine Congress 2020. Rio de Janeiro, Brazil.
7. "The Trends in Robot-related Complications, Operative Efficacy, Radiation Exposure, and Clinical Outcomes After Robot-Assisted Spine Surgery: A Multicenter Study of 722 Patients and 5,005 Screws from 2015 to 2019." Global Spine Congress 2021. Paris, France.
8. "Does Robot-Assisted Spine Surgery Achieve Better Patient- Reported Outcomes Than Freehand Techniques?" Global Spine Congress 2021. Paris, France.
9. "Curve Prevalence of a New Operative Classification of Adult Idiopathic Scoliosis (AdIS): Analysis of Fusion Levels, Perioperative Variables, and 2 Year Outcomes." Global Spine Congress 2022. Las Vegas, Nevada.
10. "Patient Perspectives on the Use of Robotic Navigation in Spinal Surgery." Global Spine Congress 2022. Las Vegas, Nevada.
11. "How to Use Preoperative Pelvic Obliquity, Leg Length Discrepancy, and Lower Extremity Compensation as an Intraoperative Tool to Predict Postoperative Coronal Alignment for Adult Spinal Deformity with 2 years Follow up." Global Spine Congress. May 31-June 3, 2023. Prague, Czech Republic.
12. "Does Coronal Alignment Affect Patient Reported Outcomes for Adult Spinal Deformity Surgery? The Key May Be Lower Extremity Compensation vs. Decompensation." Global Spine Congress. May 31-June 3, 2023. Prague, Czech Republic.

13. "What is the Value of Measuring Intraoperative Coronal Alignment for Adult Spinal Deformity Patients with Coronal Malalignment?" Global Spine Congress. May 31-June 3, 2023. Prague, Czech Republic.

#### **International Meeting on Advanced Spine Techniques (IMAST)**

14. "The Incidence and Predictors of Early Morbidity and Mortality in Adults Undergoing Elective Fusion for Spinal Deformity." 22nd International Meeting on Advanced Spine Techniques (IMAST) 2015. Kuala Lumpur, Malaysia.
15. "A Predictive Model for Early Reoperations and Readmissions in Adult Spinal Deformity." 26th International Meeting on Advanced Spine Techniques 2019. Amsterdam, Netherlands.
16. "The Trends in Robot-related Complications, Operative Efficiency, Radiation Exposure, and Clinical Outcomes After Robot-Assisted Spine Surgery: A Multicenter Study of 722 Patients and 5,005 Screws From 2015 to 2019". Whitecloud Award Nomination. 28th International Meeting on Advanced Spine Techniques 2021.
17. "A Multicenter Comparison Between the Mazor X and Stealth after Robot-Assisted Spine Surgery: A Propensity-Matched Analysis of 2,800 Screws and 372 Patients." 28th International Meeting on Advanced Spine Techniques 2021.
18. "What is the Incidence, Mechanism, and Protective Strategies for 2 Year Pelvic Fixation Failure after Adult Spinal Deformity Surgery with A Minimum 6 Level Fusion." 29th International Meeting on Advanced Spine Techniques (IMAST), April 6-9, 2022 in Miami, Florida.
19. "Which is Better: Percutaneous or Open Robot-Assisted Spine Surgery? Prospective, Multicenter Study of 2,524 Screws in 336 patients." 30th International Meeting on Advanced Spine Techniques (IMAST), March 22-24, 2023 in Dublin, Ireland.

#### **International Society for the Advancement of Spine Surgery (ISASS)**

20. "What Advantages Does the Mazor X Stealth Edition Have over the Mazor X for Robot-Assisted Spine Surgery? A Multicenter, Propensity-Matched Analysis of 2,800 Screws and 372 Patients" ISASS 2021
21. "Are Side-Bending Films Necessary? Supine Films Better Predict Structural Minor Curves for Selective Fusion in Adolescent Idiopathic Scoliosis." ISASS 2022.
22. "A Novel Method to Predict Postoperative Coronal Alignment Based on Intraoperative X-rays in Adult Spinal Deformity Surgery." ISASS 2022.

#### **International Spinal Deformity Symposium (ISDS)**

23. "Using The Robot for Adult Spinal Deformity: Are We Improving? A Multicenter Analysis of 141 Patients And 2,421 Screws." 7<sup>th</sup> Annual Annual International Spinal Deformity Symposium. 2021.
24. "How to Use Preoperative Pelvic Obliquity, Leg Length Discrepancy, and Lower Extremity Compensation as an Intraoperative Tool to Predict Postoperative Coronal Alignment for Adult Spinal Deformity with 2 Years Follow up." 8th Annual International Spinal Deformity Symposium, December 2–3, 2022.

#### **North American Spine Society**

25. "Does an Improvement in Intraoperative Neuromonitoring Cord Data Indicate a Reduced Risk for Postoperative Deficit in Spine Surgery?" NASS 39th Annual Meeting, September 24-28, 2024, Chicago, Illinois.

26. "Can the Recovery of Root-Level Intraoperative Neuromonitoring Data Result in a Lower Risk for Postoperative Lower Extremity Weakness in Spine Deformity Surgery?" NASS 39th Annual Meeting, September 24-28, 2024, Chicago, Illinois.
27. "Accurate Scoring System Predicts Cord-Level Intraoperative Neuromonitoring (Ionm) Loss During Spinal Deformity Surgery: a Machine Learning Algorithm." NASS 39th Annual Meeting, September 24-28, 2024, Chicago, Illinois.
28. "Nutritional Status as an Adjunct Risk Factor for Increased Complications and Prolonged Length of Hospital Stay in Adults Undergoing Elective Posterior Cervical Fusion Surgery." Value Award Winner. 30th North American Spine Society (NASS) 2015. Chicago, Illinois.
29. "The Impact of Resident Involvement in Outcomes for Adults Undergoing Elective Posterior Cervical Fusion." Value Award Nominee. 30th North American Spine Society (NASS) 2015. Chicago, Illinois.
30. "Duration of Anesthesia as a Risk Factor for Postoperative Complications in Patients Undergoing Anterior Cervical Discectomy and Fusion." Value Award Nominee. 31st North American Spine Society (NASS) 2016. Boston, Massachusetts.
31. "Frailty Index is a Significant Predictor of Complications and Readmissions Following Posterior Lumbar Fusion." 31st North American Spine Society (NASS) 31st Annual Meeting 2016. Boston, Massachusetts.
32. "The morbidity, readmissions, and cost for pediatric cerebral palsy patients undergoing primary spinal fusion surgery: a national analysis on 2,779 patients." Value Award Nomination. 35th Annual Meeting North American Spine Society 2020. San Diego, California.
33. "A national analysis on complications and readmissions for adult cerebral palsy patients undergoing primary spinal fusion surgery." Value Award Nomination. 35th Annual Meeting North American Spine Society 2020. San Diego, California.
34. "A comparison of various surgical treatments for cervical spondylotic myelopathy: a propensity-score matched analysis." 35th Annual Meeting North American Spine Society 2020. San Diego, California.
35. "The Trends in Robot-related Complications, Operative Efficiency, Radiation Exposure, and Clinical Outcomes After Robot-Assisted Spine Surgery: A Multicenter Study of 722 Patients and 5,005 Screws From 2015 to 2019." 36th Annual NASS 2021. Boston, MA.

#### **Society of Minimally Invasive Spine Surgery**

36. "A Prospective, Multicenter Assessment on the Accuracy of Robot-Assisted S2 Alar Iliac Screw Placement." SMISS 2020. Las Vegas, Nevada.
37. "The Trends in Robot-related Complications, Operative Efficiency, Radiation Exposure, and Clinical Outcomes After Robot-Assisted Spine Surgery: A Multicenter Study of 722 Patients and 5,005 Screws From 2015 to 2019." SMISS 2021. Las Vegas, Nevada.
38. "What Advantages does a Navigated Robot have over a Non-Navigated Robot for Robot-Assisted Spine Surgery? A Multicenter, Propensity-Matched Analysis of 2,800 Screws and 372 Patients." SMISS 2021. Las Vegas, Nevada.
39. "Is There a Difference in Screw Accuracy, Robot Time Per Screw, Robot Abandonment, and Radiation Exposure Between the Mazor X and the Renaissance? A Propensity-Matched Analysis of 1179 Robot-Assisted Screws." SMISS 2021. Las Vegas, Nevada.

#### **Scoliosis Research Society**

40. "The Risks, Reasons, and Costs for 30- and 90-day Readmissions After Adolescent Idiopathic Scoliosis Surgery." 54th SRS 2019. Montreal, Canada.

41. "Do Readmissions and Reoperations Adversely Affect Patient-Reported Outcomes Associated with Complex Adult Spinal Deformity Surgery at a Minimum 2 Year Postoperative?" 55th SRS 2020. Phoenix, Arizona.
42. "Central Sacral Pelvic Line (CSPL) is a Useful Radiographic Parameter that Correlates with Clinical Outcomes of Coronal Alignment after Spine Deformity Surgery" 56<sup>th</sup> SRS 2021. St. Louis, Missouri.
43. "Exploring the Indications, Failures, and Treatment of Complications After a C2 to Pelvis Fusion" 59<sup>th</sup> SRS 2024. Barcelona, Spain. Russell A. Hibbs Award (Nominated) in Clinical Research.
44. "Accurate Scoring System Predicts Cord-Level Intraoperative Neuromonitoring (Ionm) Loss During Spinal Deformity Surgery: A Machine Learning Algorithm." 59<sup>th</sup> SRS 2024. Barcelona, Spain.

### **Spine Base to Summit**

45. "How Common is Acute Pelvic Fixation Failure After Adult Spinal Surgery? A Single Center Study of 358 Patients." Spine Base to Summit 2022. Vail, Colorado.

### **Spine Summit**

46. "What is the Value of Measuring Intraoperative Coronal Alignment for Adult Spinal Deformity Patients with Coronal Malalignment?" Spine Summit 2023. Miami Beach, Florida.
47. "Does Coronal Alignment Affect Patient Reported Outcomes for Adult Spinal Deformity Surgery? The Key may be Lower Extremity Compensation vs. Decompensation" Spine Summit 2023. Albert Scholar Award award-winning presentation. March 16-19, 2023 in Miami Beach, Florida.
48. "Which is Better: Percutaneous or Open Robot-Assisted Spine Surgery? Prospective, Multicenter Study of 2,524 Screws in 336 patients." Spine Summit 2023. Miami Beach, Florida.

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## **POSTER PRESENTATIONS AND OTHER NON-FIRST AUTHOR PODIUMS**

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### **American Association of Neurological Surgeons (AANS)**

1. Ladner TR, Sarkiss CA, Lee NJ, Kothari P, Lakomkin N, Caridi JM. "Presence of Preoperative Cardiopulmonary Factors Leads to Greater Morbidity Following Resection of Epidural Tumors of the Thoracic Spine: An ACS NSQIP Analysis." April 2017: Los Angeles, California
2. Ladner TR, Sarkiss CA, Lee NJ, Kothari P, Lakomkin N, Caridi JM. "Poor Preoperative Nutrition Status Leads to Greater Morbidity Following Resection of Epidural Tumors of the Thoracic Spine: An ACS NSQIP Analysis." April 2017: Los Angeles, California
3. Sarkiss CA, Ladner TR, Lee NJ, Kothari P, Lakomkin N, Caridi JM. "Poor Preoperative Nutrition Status Leads to Greater Morbidity Following Resection of Epidural Tumors of the Lumbar Spine: An ACS NSQIP Analysis." April 2017: Los Angeles, California
4. Sarkiss CA, Ladner TR, Lee NJ, Kothari P, Lakomkin N, Caridi JM. "Greater Operative Time Leads to Increased 30-Day Morbidity and Mortality Following Resection of Epidural Tumors of the Lumbar Spine in 300 Patients: An ACS NSQIP Analysis." April 2017: Los Angeles, California
5. Sarkiss CA, Ladner TR, Lee NJ, Kothari P, Lakomkin N, Caridi JM. "Prediction of 30-Day Morbidity and Mortality Following Resection of Epidural Tumors of the Lumbar Spine in 300 Patients: An ACS NSQIP Analysis." ORAL Presentation April 2017: Los Angeles, California

6. Sarkiss CA, Ladner TR, Lee NJ, Kothari P, Lakomkin N, Caridi JM. "Prediction of 30-Day Morbidity and Mortality Following Resection of Epidural Tumors of the Thoracic Spine in 616 Patients: An ACS NSQIP Analysis." April 2017: Los Angeles, California
7. Lee NJ, Steinberger J, Cho SK, Caridi JM. "Incidence of Preoperative Motor Weakness and Recovery after Spinal Surgery." March 14-17, 2018. Orlando, Florida. American Academy of Orthopaedic Surgeons (AAOS)
8. Martin CT, Pugely AJ, Gao Y, Skovrlj B, Lee NJ, Cho SK., Mendoza-Lattes SA. Is the SRS Membership Accurately Reporting M&M Data?: A Comparison of the SRS and NSQIP databases. 2016 AAOS Annual Meeting, March 1 – 5. Orlando, Florida.

**American College of Surgeons National Surgical Quality Improvement Program (ACS NSQIP)**

9. Kim JH, Somani S, Kothari P, Lee NJ, Di Capua J, Leven D, Kim J, Cho SK. "Risk factors associated with increased postoperative hospital length of stay after elective single-level anterior cervical discectomy and fusion." ACS NSQIP Annual Conference 2016
10. Di Capua J, Kothari P, Kim JH, Leven D, Kim J, Lee NJ, Somani S, Cho SK. "Number of Hospital Acquired Conditions as a Predictor for 30-day Postoperative Complications in All Orthopedic Encoded Procedures in ACS NSQIP." ACS NSQIP Annual Conference 2016
11. Di Capua J, Kim JH, Somani S, Kothari P, Lee NJ, Kim J, Leven D, Cho SK. "Number of Major Complications as a Predictor for Mortality and Length of Stay in Elective Posterior Lumbar Fusion (PLF) in ACS NSQIP." ACS NSQIP Annual Conference 2016
12. Kim JH, Kothari P, Di Capua J, Kim J, Leven D, Somani S, Lee NJ, Cho SK. "Identifying Risk Factors for Developing Increasing Number of 30-day Postoperative Complications in Patients Undergoing Elective Adult Spinal Deformity (ASD) Procedures." ACS NSQIP Annual Conference 2016
13. Lee NJ, Leven J, Kim J, Kothari P, Somani S, Kim JH, Di Capua J, Cho SK. "Number of Major Complications as a Predictor for Mortality and Length of Stay in Elective Posterior Cervical Discectomy with Interbody Fusion (PCDF) in ACS NSQIP." ACS NSQIP Annual Conference 2016
14. Kothari P, Kim JH, Kim J, Leven D, Lee NJ, Somani S, Di Capua J, Cho SK. "Identifying Risk Factors for Developing Increasing Number of 30-day Postoperative Complications in Patients Undergoing Elective Anterior Lumbar Fusion (ALF) in ACS NSQIP." ACS NSQIP Annual Conference 2016
15. Lee NJ, Kothari P, Leven D, Kim J, Di Capua J, Kim JH, Somani S, Cho SK. "Identifying Risk Factors for Developing Increasing Number of 30-day Postoperative Complications in Patients Undergoing Elective Posterior Lumbar Fusion (PLF) in ACS NSQIP." ACS NSQIP Annual Conference 2016
16. Kothari P, Somani S, Leven D, Kim J, Lee NJ, Di Capua J, Kim JH, Cho SK. "Using Machine Learning To Predict 30-day Pulmonary Complications Following Elective Anterior Cervical Discectomy With Interbody Fusion (ACDF)." ACS NSQIP Annual Conference 2016
17. Kim JH, Somani S, Di Capua J, Kothari J, Lee NJ, Kim J, Leven D, Cho SK. "Predictors for Developing Hospital Acquired Conditions in All Orthopedic Encoded Procedures in ACS NSQIP." ACS NSQIP Annual Conference 2016
18. Kothari P, Kim J, Di Capua J, Lee NJ, Somani S, Kim JH, Leven D, Cho SK. "ASA Class 4 as an Independent Risk Factor for Unplanned Readmission After Adult Spinal Deformity Surgery." ACS NSQIP Annual Conference 2016.

19. Kothari P, Lee NJ, Somani S, Kim J, Di Capua J, Kim JH, Leven D, Cho SK. "Race is Not a Predictor of Adverse Outcomes in Elective Adult Spinal Deformity Cases." ACS NSQIP Annual Conference 2016
20. Kim JH, Leven D, Kim J, Lee NJ, Di Capua J, Somani S, Kothari P, Cho SK. "Identifying Risk Factors for Developing Increasing Number of 30-day Postoperative Complications in Patients Undergoing Elective Posterior Cervical Fusion (PCF) in ACS NSQIP." ACS NSQIP Annual Conference 2016
21. Somani S, Lee NJ, Bronheim R, Di Capua J, Arvind V, Kaji D, Leven D, Cho SK. "Assessing Differences From Surgical Specialty in Anterior Cervical Discectomy with Intervertebral Fusion." ACS NSQIP Annual Conference 2017
22. Kothari P, Bronheim R, Di Capua J, Lee NJ, Kaji D, Arvind V, Cho SK. "Differences in Patient Characteristics and Operative Outcomes for 22,581 Posterior Lumbar Fusion Surgeries Between Neurosurgeons and Orthopedic Surgeons." ACS NSQIP Annual Conference 2017
23. Lee NJ, Di Capua J, Kothari P, Bronheim R, Somani S, Kaji D, Arvind V, Cho SK. "Preoperative Risk Factors for Delays to Surgery in Posterior Lumbar Fusion Procedures after Hospital Admission." ACS NSQIP Annual Conference 2017

#### **Cervical Spine Research Society (CSRS)**

24. Steinberger J, Skovrlj B, Lee NJ, Kothari PA, Guzman JZ, Shin JI, Caridi JM, Cho SK. "Factors Associated With Morbidity And Mortality In Adults Undergoing Cervical Corpectomy. 2015 CSRS Annual Meeting. December 3-5. San Diego, California
25. Steinberger J, Leven DM, Skovrlj B, Shin JI, Lee NJ, Kothari P, Guzman J, Cho SK., "Morbidity And Mortality Associated With Transoral Approaches To The Cervical Spine." 2015 CSRS Annual Meeting. December 3-5. San Diego, California
26. Joaquim AF, Lee NJ, Riew KD. "Revision Surgeries at the Index Level After Cervical Disc Arthroplasty." (POSTER) CSRS 2020. Las Vegas, NV.
27. Lee NJ, Joaquim AF, Boddapati V et al. "Revision Anterior Cervical Disc Arthroplasty: A National Analysis on the 10-year Prevalence and the Associated Indications, Procedures, and Postoperative Outcomes." (Poster). CSRS 2020. Las Vegas, Nevada.

#### **Congress of Neurological Surgeons (CNS)**

28. Lee NJ, Skovrlj B, Shin JI, Kothari P, Guzman JZ, Steinberger J, Leven DM, Cho SK. "Age As A Risk Factor For Postoperative Complications In Adults Undergoing Elective Posterior Lumbar Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
29. Guzman JZ, Steinberger J, Skovrlj B, Lee NJ, Kothari P, Shin JI, Leven DM, Caridi JM, Cho SK. "Age is An Independent Risk Factor for Post-Operative Complications and Mortality Following Adult Deformity Surgery" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
30. Lee NJ, Steinberger J, Guzman JZ, Kothari P, Leven DM, Shin JI, Skovrlj B, Caridi JM, Cho SK. "Clinical Features Associated With Venous Thromboembolism Risk In Patients Undergoing Adult Deformity Surgery: A Review Of 4,793 Patients" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
31. Leven DM, Shin JI, Steinberger J, Skovrlj B, Kothari P, Lee NJ, Guzman JZ, Caridi JM, Cho SK. "Comorbidities And Operative Factors Are Predictive Of Mortality Following Adult Deformity Surgery" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.

32. Kothari P, Lee NJ, Skovrlj B, Steinberger J, Leven DM, Guzman JZ, Shin JI, Cho SK. "Comparative Analysis Between Adults Undergoing Elective Posterior Lumbar Fusion And Combined Posterior/Interbody Lumbar Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
33. Lee NJ, Steinberger J, Skovrlj B, Kothari P, Leven DM, Guzman JZ, Shin JI, Cho SK. "Comparative Analysis Of Anterior And Three-Column Osteotomies During Adult Spinal Deformity Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
34. Kothari P, Guzman JZ, Lee NJ, Shin JI, Steinberger J, Skovrlj B, Leven DM, Cho SK. "Comparative Analysis Of Laminotomy And Microdiscectomy With Revisions" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
35. Kothari P, Guzman JZ, Lee NJ, Shin JI, Skovrlj B, Steinberger J, Leven DM, Cho SK. "Comparative Analysis Of Standard Discectomy With Extraforaminal Discectomy" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
36. Kothari P, Leven DM, Lee NJ, Shin JI, Skovrlj B, Steinberger J, Guzman JZ, Cho SK. "Diabetes Is An Independent Risk Factor For Reoperation And Readmission Following Anterior Cervical Discectomy And Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
37. Lee NJ, Steinberger J, Skovrlj B, Guzman JZ, Leven DM, Shin JI, Kothari P, Cho SK. "Does Obesity Increase Complications After Posterior Cervical Fusions: An Analysis Using The ACS NSQIP Database" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
38. Kothari P, Guzman JZ, Steinberger J, Skovrlj B, Leven DM, Shin JI, Lee NJ, Caridi JM, Cho SK. "Does Pelvic Fixation Increase Morbidity And Mortality In Patients Undergoing Posterior Lumbar Fusion?" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
39. Kothari P, Guzman JZ, Lee NJ, Shin JI, Leven DM, Steinberger J, Skovrlj B, Cho SK. "Does Smoking Increase The Risk Of Wound Infections In Patients Undergoing Posterior Cervical Fusion?" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
40. Kothari P, Steinberger J, Guzman JZ, Lee NJ, Skovrlj B, Shin JI, Leven DM, Caridi JM, Cho SK. "Duration Of Anesthesia As A Risk Factor For Postoperative Complications In Patients Undergoing Anterior Cervical Discectomy And Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
41. Steinberger J, Kothari P, Guzman JZ, Skovrlj B, Leven DM, Lee NJ, Shin JI, Caridi JM, Cho SK. "Duration Of Anesthesia As A Risk Factor For Postoperative Complications In Patients Undergoing Posterior Lumbar Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
42. Steinberger J, Kothari P, Guzman JZ, Skovrlj B, Leven DM, Lee NJ, Shin JI, Caridi JM, Cho SK. "Duration Of Anesthesia As An Independent Risk Factor For Postoperative Complications In Adult Spinal Deformity Surgery" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
43. Lee NJ, Kothari P, Skovrlj B, Guzman JZ, Leven DM, Steinberger J, Shin JI, Cho SK. "Duration Of Operation As A Risk Factor For Increased Rates Of Complications And

- Length Of Stay” (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
44. Steinberger J, Kothari P, Guzman JZ, Skovrlj B, Leven DM, Lee NJ, Shin JI, Caridi JM, Cho SK. “Factors Associated With Increased Length Of Stay (LOS) Following Adult Deformity Surgery (ADS)” (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  45. Leven DM, Kothari P, Guzman JZ, Shin JI, Steinberger J, Skovrlj B, Lee NJ, Caridi JM, Cho SK. “Frailty Index Is A Significant Predictor Of Complications And Mortality Following Adult Deformity Surgery” (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  46. Kothari P, Leven DM, Lee NJ, Shin JI, Skovrlj B, Steinberger J, Guzman JZ, Cho SK. “Frailty Index Is A Significant Predictor Of Complications And Readmissions Following Posterior Lumbar Fusion” (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  47. Guzman JZ, Kothari P, Steinberger J, Lee NJ, Skovrlj B, Leven DM, Shin JI, Caridi JM, Cho SK. “Higher American Society Of Anesthesiologist (ASA) Score Is An Independent Risk Factor For Complications Following Adult Deformity Surgery (ADS)” (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  48. Lee NJ, Skovrlj B, Kothari P, Guzman JZ, Steinberger J, Leven DM, Shin JI, Cho SK. “Impact Of Operative Time On Outcomes In Adults Undergoing Elective Posterior Lumbar Fusion” (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  49. Skovrlj B, Lee NJ, Steinberger J, Leven DM, Kothari P, Guzman JZ, Shin JI, Caridi JM, Cho SK. “Impact Of Preoperative Anemia On Perioperative Outcomes In Adults Undergoing Elective Posterior Cervical Fusion” (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  50. Lee NJ, Leven DM, Steinberger J, Skovrlj B, Guzman JZ, Kothari P, Shin JI, Caridi JM, Cho SK. “Incidence, Outcomes And Clinical Factors Associated With Perioperative Blood Transfusion In Adults Undergoing Elective Posterior Cervical Fusion Surgery” (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  51. Lee NJ, Leven DM, Kothari P, Steinberger J, Skovrlj B, Guzman JZ, Shin JI, Cho SK. “Independent Predictors For Hospital Acquired Conditions (HAC) And Associated Complications In Adults Undergoing Elective Posterior Cervical Fusion” (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  52. Kothari P, Steinberger J, Lee NJ, Skovrlj B, Leven DM, Guzman JZ, Shin JI, Caridi JM, Cho SK. “Influence Of Gender On Outcomes After Anterior Cervical Discectomy And Fusion” (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  53. Kothari P, Steinberger J, Lee NJ, Skovrlj B, Leven DM, Guzman JZ, Shin JI, Caridi JM, Cho SK. “Influence Of Gender On Outcomes After Lumbar Spinal Fusion” (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  54. Kothari P, Steinberger J, Lee NJ, Skovrlj B, Leven DM, Guzman JZ, Shin JI, Caridi JM, Cho SK. “Influence Of Gender On Outcomes After Spinal Deformity Surgery” (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.

55. Kothari P, Guzman JZ, Steinberger J, Shin JI, Lee NJ, Skovrlj B, Leven DM, Cho SK. "Influence Of Smoking On Wound Complications In Adults Undergoing Elective Posterior Lumbar Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
56. Lee NJ, Guzman JZ, Kothari P, Steinberger J, Shin JI, Skovrlj B, Leven DM, Cho SK. "Is ASA Score A Predictor Of 30 Day Perioperative Readmission In Adults Undergoing Posterior Lumbar Fusion?" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
57. Leven DM, Steinberger J, Lee NJ, Kothari P, Skovrlj B, Guzman JZ, Shin JI, Caridi JM, Cho SK. "Malnutrition Is A Risk Factor For Major Postoperative Complications Following Adult Deformity Surgery" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
58. Steinberger J, Leven DM, Skovrlj B, Lee NJ, Kothari P, Guzman JZ, Shin JI, Caridi JM, Cho SK. "Morbidity And Mortality Associated With Transoral Approaches To The Cervical Spine" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
59. Skovrlj B, Lee NJ, Steinberger J, Leven DM, Guzman JZ, Kothari P, Shin JI, Caridi JM, Cho SK. " Nutritional Status As An Adjunct Risk Factor For Increased Complications And Prolonged Length Of Hospital Stay In Adults Undergoing Elective Posterior Cervical Fusion Surgery" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
60. Kothari P, Leven DM, Skovrlj B, Lee NJ, Shin JI, Steinberger J, Guzman JZ, Caridi JM, Cho SK. "Obese Class III Adults Have Significantly Greater Risk Of Multiple Complications After Adult Deformity Surgery: An Analysis Of 4,716 Patients In The ACS NSQIP Database" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
61. Lee NJ, Leven DM, Skovrlj B, Steinberger J, Kothari P, Shin JI, Guzman JZ, Cho SK. "Operative Time Is An Independent Predictor Of Complications Following Anterior Cervical Discectomy And Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
62. Lee NJ, Kothari P, Leven DM, Skovrlj B, Steinberger J, Shin JI, Guzman JZ, Cho SK. "Operative Time Is An Independent Predictor Of Complications Following Posterior Cervical Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
63. Lee NJ, Steinberger J, Shin JI, Skovrlj B, Guzman JZ, Leven DM, Kothari P, Cho SK. "Patients With Noninsulin Dependant Diabetes Have Greater Risk Of Complications After Adult Deformity Surgery: An Analysis Of 4,716 Patients In The ACS NSQIP Database" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
64. Lee NJ, Steinberger J, Guzman JZ, Skovrlj B, Leven DM, Kothari P, Shin JI, Caridi JM, Cho SK. "Predictors Of Unplanned Readmission For Adults Undergoing Elective Lumbar Spine Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
65. Skovrlj B, Leven DM, Lee NJ, Steinberger J, Kothari P, Guzman JZ, Shin JI, Caridi JM, Cho SK. "Preoperative Anemia As A Predictor For Major Postoperative Complications In Elective Adult Spinal Deformity Surgery" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
66. Kothari P, Guzman JZ, Lee NJ, Shin JI, Steinberger J, Skovrlj B, Leven DM, Cho SK. "Racial Disparity In Total Hospital Length Of Stay For Adults Undergoing Elective

- ACDF" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
67. Kothari P, Guzman JZ, Lee NJ, Shin JI, Skovrlj B, Steinberger J, Leven DM, Cho SK. "Racial Disparity In Wound Complications For Adults Undergoing Elective Posterior Lumbar Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  68. Leven DM, Kothari P, Guzman JZ, Skovrlj B, Lee, NJ, Steinberger J, Shin JI, Caridi JM, Cho SK. "Readmissions After Spinal Deformity Surgery" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  69. Lee NJ, Guzman JZ, Skovrlj B, Kothari P, Shin JI, Leven DM, Steinberger J, Cho SK. "Relationship Between ASA Scores And 30-Day Readmissions In Patients Undergoing Anterior Cervical Discectomy And Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  70. Lee NJ, Leven DM, Shin JI, Guzman JZ, Kothari P, Steinberger J, Skovrlj B, Cho SK. "Relationship Between ASA Scores And 30-Day Readmissions In Patients Undergoing Posterior Cervical Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  71. Lee NJ, Skovrlj B, Steinberger J, Guzman JZ, Leven DM, Shin JI, Kothari P, Caridi JM, Cho SK. "Risk Factors For Blood Transfusion And Associated Complications Following Adult Deformity Surgery" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  72. Kothari P, Guzman JZ, Skovrlj B, Lee NJ, Shin JI, Steinberger J, Leven DM, Cho SK. "Risk Factors For Complications And Extended Length Of Stay For Patients Undergoing Anterior Fixation For Odontoid Fractures" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  73. Kothari P, Leven DM, Skovrlj B, Steinberger J, Lee NJ, Guzman JZ, Shin JI, Cho SK. "Risk Factors For Hospital-Acquired Conditions And Associated Complications Following Adult Deformity Surgery" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  74. Kothari P, Lee NJ, Guzman JZ, Shin JI, Skovrlj B, Steinberger J, Leven DM, Cho SK. "Risk Factors For Hospital-Acquired Conditions And Associated Complications Following Anterior Cervical Discectomy And Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  75. Kothari P, Leven DM, Lee NJ, Shin JI, Steinberger J, Skovrlj B, Guzman JZ, Cho SK. "Risk Factors For Hospital-Acquired Conditions (HAC) And Associated Complications Following Elective Posterior Lumbar Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  76. Lee NJ, Leven DM, Shin JI, Guzman JZ, Kothari P, Skovrlj B, Steinberger J, Cho SK. "Risk Factors For Morbidity Following Posterior Cervical Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  77. Leven DM, Lee NJ, Guzman JZ, Kothari P, Steinberger J, Skovrlj B, Shin JI, Cho SK. "Risk Factors For Readmission Following Anterior Lumbar Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  78. Lee NJ, Leven DM, Kothari P, Skovrlj B, Steinberger J, Shin JI, Guzman JZ, Cho SK. "Risk Factors For Readmission Following Posterior Cervical Fusion" (E-POSTER).

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79. Kothari P, Leven DM, Lee NJ, Shin JI, Skovrlj B, Steinberger J, Guzman JZ, Cho SK. "Risk Factors For Readmission Following Posterior Lumbar Fusions" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  80. Kothari P, Guzman JZ, Lee NJ, Shin JI, Steinberger J, Leven DM, Skovrlj B, Cho SK. "Risk Factors For Wound Complications Following Anterior Cervical Discectomy And Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  81. Lee NJ, Leven DM, Kothari P, Guzman JZ, Steinberger J, Shin JI, Skovrlj B, Cho SK. "Risk Factors For Wound Complications Following Posterior Cervical Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  82. Kothari P, Leven D, Lee NJ, Shin JI, Steinberger J, Skovrlj B, Guzman JZ, Cho SK. "Risk Factors For Wound Complications Following Posterior Lumbar Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  83. Lee NJ, Leven DM, Steinberger J, Shin JI, Kothari P, Guzman JZ, Skovrlj B, Caridi JM, Cho SK. "Surgical Approach Is Associated With Increased Rates Of Complications And Longer Length Of Stay In Adult Deformity Surgery" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  84. Lee, NJ, Leven DM, Kothari P, Steinberger J, Skovrlj B, Guzman JZ, Shin JI, Cho SK. "Surgical Approach Is Associated With Reoperation Rates And Longer Length Of Stay In Patients Undergoing Elective Lumbar Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  85. Kothari P, Lee NJ, Shin JI, Skovrlj B, Steinberger J, Leven DM, Guzman JZ, Cho SK. "The Effect Of Race On Patients Undergoing Elective Posterior Cervical Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  86. Kothari P, Guzman JZ, Lee NJ, Shin JI, Skovrlj B, Steinberger J, Leven DM, Cho SK. "The Effect Of Smoking On Complications In Adults Undergoing Elective Anterior Cervical Discectomy And Fusion" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  87. Lee NJ, Skovrlj B, Kothari P, Steinberger J, Leven DM, Guzman JZ, Shin JI, Caridi JM, Cho SK. "The Impact Of Resident Involvement On Postoperative Complications Following Adult Deformity Surgery" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.
  88. Leven DM, Kothari P, Shin JI, Skovrlj B, Steinberger J, Guzman JZ, Lee NJ, Caridi JM, Cho SK. "The Incidence And Predictors For 30 Day Wound Complications In Adult Deformity Spinal Fusion Surgery, An Analysis Of The ACS NSQIP Database" (E-POSTER). Congress of Neurological Surgeons (CNS) 66th Annual Meeting, September 2015. New Orleans, Louisiana.

#### **Global Spine Congress (GSC)**

89. Lee NJ, Fields M, McCormick, Park P, Cerpa M, Kim J, Lenke LG. "A National Analysis on Complications and Readmissions for Adult Cerebral Palsy Patients

- Undergoing Primary Spinal Fusion Surgery.” (E-POSTER) GSC 2020. Rio de Janeiro, Brazil
90. Lee NJ, Fields M, McCormick, Hong D, Ha A, Lenke L, Roye D, Vitale M. “The Morbidity, Readmissions, and Cost for Pediatric Cerebral Palsy Patients Undergoing Primary Spinal Fusion Surgery - A National Analysis on 2,756 Patients.” (E-POSTER) GSC 2020. Rio de Janeiro, Brazil
  91. Lee NJ, Buchanan IA, Boddapati et al. “Is There a Difference in Screw Accuracy, Robot Reliability, and Radiation Exposure Between the Mazor X and the Renaissance? A Propensity-Matched Analysis of 1,179 Robot-Assisted Screws.” (E-POSTER) GSC 2021. Paris, France
  92. Lee NJ, Buchanan IA, Zuckerman et al. “A Multicenter Comparison Between the Mazor X and the Renaissance in Robot-Assisted Spine Surgery: A Propensity-Matched Analysis of 2,671 Screws and 400 Patients with a 1 Year Minimum Follow-Up.” (E-POSTER). GSC 2021. Paris, France
  93. Lee NJ, Buchanan IA, Zuckerman et al. “What is the Comparison in Robot Complications, Radiation Exposure, and Clinical Outcomes Between Percutaneous and Open Robot-Assisted Short Lumbar Fusion? A Multicenter, Propensity-Matched Analysis of 310 Patients.” (E-Poster) GSC 2021. Paris, France
  94. Park PJ, Morrisette CR, Lee NJ, et al. “The Efficacy and Safety of Large Diameter Pedicle Screws in Adult Thoracolumbar Deformity.” (PODIUM). GSC 2021. Paris, France
  95. Park PJ, Morrisette CR, Lee NJ, et al. “The Posterior Cranial Vertical Line (PCVL): a Novel Global Sagittal Alignment Parameter that Correlates to Proximal Junctional Kyphosis Following Adult Spinal Deformity Surgery.” (E-POSTER). GSC 2021. Paris, France
  96. Park PJ, Morrisette CR, Lee NJ, et al. “The Effect of Preoperative Mental Health Scores on SRS-22 and Postoperative Outcomes in Adult Spinal Deformity Surgeries.” (E-POSTER). GSC 2021. Paris, France
  97. Ha AS, Tuchman A, Mathew J, Lee NJ et al. “A Novel Intraoperative Coronal Radiographic Parameter for Adult Spine Deformity.” (E-Poster). Global Spine Congress 2020. Rio de Janeiro, Brazil.
  98. Lee NJ, Buchanan IA, Boddapati V et al. “Is There a Difference in Screw Accuracy, Robot Reliability, and Radiation Exposure Between the Mazor X and the Renaissance? A Propensity-Matched Analysis of 1,179 Robot-Assisted Screws.” (E-Poster). Global Spine Congress 2021. Paris, France.
  99. Lee NJ, Buchanan IA, Boddapati V et al. “A Multicenter Comparison Between the Mazor X and the Renaissance in Robot-Assisted Spine Surgery: A Propensity-Matched Analysis of 2,671 Screws and 400 Patients with a 1 Year Minimum Follow-Up.” (E-Poster). Global Spine Congress 2021. Paris, France.
  100. Lee NJ, Buchanan IA, Boddapati V et al. “What is the Comparison in Robot Complications, Radiation Exposure, and Clinical Outcomes Between Percutaneous and Open Robot-Assisted Short Lumbar Fusion? A Multicenter, Propensity-Matched Analysis of 310 Patients.” (E-Poster). Global Spine Congress 2021. Paris, France.
  101. Mathew J, Lee NJ, Boddapati V et al. “Comparing Hyper-lordotic and Less-Lordotic Cages for Achieving Segmental Lumbar Lordosis During Transforaminal Lumbar Interbody Fusion in Adult Spinal Deformity Surgery.” (Podium). Global Spine Congress 2021. Paris, France.
  102. Buchanan IA, Lee NJ, Kerolus M, Ha AS, Zuckerman SL, Iyer R, Cerpa M, Lenke LG. The “Touched Vertebra (TV)” Provides a Reliable Method for the Lowest

- Instrumented Vertebra (LIV) Selection in Adult Idiopathic Scoliosis (AdIS). (Podium). Global Spine Congress 2022. Las Vegas, Nevada.
103. How Common is Acute Pelvic Fixation Failure After Adult Spinal Surgery? A Single Center Study of 358 Patients. (E-Poster). Global Spine Congress 2022. Las Vegas, Nevada.
  104. What is the Incidence, Mechanism, and Protective Strategies for 2 Year Pelvic Fixation Failure after Adult Spinal Deformity Surgery with a Minimum 6 Level Fusion. (E-Poster). Global Spine Congress 2022. Las Vegas, Nevada.
  105. Patient Perspectives on the Use of Robotic Navigation in Spinal Surgery. (E-Poster). Global Spine Congress 2022. Las Vegas, Nevada.
  106. Curve Prevalence of a New Operative Classification of Adult Idiopathic Scoliosis (AdIS): Analysis of Fusion Levels, Perioperative Variables, and 2-Year Outcomes. (E-Poster). Global Spine Congress 2022. Las Vegas, Nevada.
  107. Does Upper Instrumented Vertebrae Selection Influence 2-Year Postoperative Cervical Sagittal Range of Motion Following Thoracolumbar Spinal Deformity Surgery Starting in the Upper Thoracic Region? (E-Poster). Global Spine Congress 2022. Las Vegas, Nevada.
  108. Predictors of Cervical Sagittal Range of Motion 2-Years Postoperative Following Thoracolumbar Spinal Deformity Surgery. (E-Poster). Global Spine Congress 2022. Las Vegas, Nevada.

#### **International Meeting on Advanced Spine Techniques (IMAST)**

109. Di Capua J, Lee NJ, Somani S, Kaji D, Kim J, Kothari P, Bronheim R, Cho SK. Nutritional Insufficiency as a Predictor for Adverse Outcomes in Adult Spinal Deformity Cases. (PODIUM) IMAST: The 24th International Meeting on Advanced Spine Techniques, Cape Town South Africa, July 12 - 15, 2017.
110. Lee NJ, Fields M, McCormick, Hong D, Ha A, Lenke L, Roye D, Vitale M. "The Morbidity, Readmissions, and Cost for Pediatric Cerebral Palsy Patients Undergoing Primary Spinal Fusion Surgery - A National Analysis on 2,756 Patients." (E-POSTER). IMAST 2020. Athens, Greece.
111. Reidler J, Kim J, Lombardi J, Vivas A, Lee NJ, Leung E, Cerpa M, Lenke LG, Lehman RA. "Can the Transforaminal Lumbar Interbody Fusion (TLIF) Actually Achieve Lordosis?: Influence of Cage Position and Shape in Achieving Lordosis." (E-POSTER). IMAST 2020. Athens, Greece.
112. Ha A, Tuchman A, Matthew J, Lee NJ, Cerpa M, Benkli B, Lombardi J, Makhni M, Lenke LG. "A Novel Intraoperative Coronal Radiographic Parameter for Adult Spinal Deformity." (E-POSTER). IMAST 2020. Athens, Greece.
113. Park P, Beauchamp E, Cerpa M, Makhni M, Lee NJ, Sielatycki JA, Lehman RA, Lenke LG. "Can Ketamine Decrease Postoperative Opioid Use following Adult Spinal Deformity Surgery?" (E-POSTER). IMAST 2020. Athens, Greece.
114. Lee NJ, Fields M, McCormick K, Park P, Boddapati V, Cerpa M, Kim J, Sardar Zeeshan, Lenke LG. "A National Analysis on Complications and Readmissions for Adult Cerebral Palsy Patients Undergoing Primary Spinal Fusion Surgery." (E-POSTER). IMAST 2020. Athens, Greece.
115. Lee NJ, Fields M, Kim J, Matthew J, Lenke L, Riew D. "A National Perspective on the Morbidity and Readmission Risk for Patients with Ossification of the Posterior Longitudinal Ligament Undergoing Cervical Spine Surgery" (E-POSTER). IMAST 2020. Athens, Greece.
116. Lee NJ, Fields M, Hong D, Ha Alex, Matthew J, Roye B, Lenke LG, Vitale M. "Spinal Deformity Surgery for Pediatric Patients with Marfan Syndrome: A Nationwide

- Assessment on Short-term Outcomes and Readmission Risk” (E-POSTER). IMAST 2020. Athens, Greece.
117. Lee NJ, Fields M, McCormick K, Hong D, Ha A, Roye B, Lenke LG, Roye D, Vitale M. “The Morbidity, Readmissions, and Cost for Pediatric Cerebral Palsy Patients Undergoing Primary Spinal Fusion Surgery: A National Analysis on 2,779 Patients.” (E-POSTER). IMAST 2020. Athens, Greece.
  118. Reidler JS, Kim JS, Lombardi JM, et al. “Can the Transforaminal Lumbar Interbody Fusion (TLIF) Actually Achieve Lordosis?: Influence of Cage Position and Shape in Achieving Lordosis.” (E-Poster). 27th International Meeting on Advanced Spine Techniques 2019. Athens, Greece.
  119. Fields MW, Lee NJ, McCormick K et al. “A National Analysis on Complications and Readmissions for Adult Cerebral Palsy Patients Undergoing Primary Spinal Fusion Surgery.” (E-Poster). 27th International Meeting on Advanced Spine Techniques 2019. Athens, Greece.
  120. A Multicenter Analysis of the Utilization of Robot for Adult Spinal Deformity: Are We Improving After 5 Years? (E-Poster). 29th International Meeting on Advanced Spine Techniques (IMAST), April 6-9, 2022 in Miami, Florida
  121. Efficacy of Fracture Risk Assessment Tool (FRAX) Criteria in Identifying Osteoporosis and Osteopenia in an Adult Spinal Deformity Population (E-Poster). 29th International Meeting on Advanced Spine Techniques (IMAST), April 6-9, 2022 in Miami, Florida
  122. Lai C, Mohanty S, Hassan F, Taber C, Williams J, Lee NJ, Sardar ZM, Lehman RA, Lenke LG. “The Cranial Sagittal Vertical Axis to the Hip (CrSVA-H) is the Best Sagittal Alignment Predictor of Patient Reported Outcomes at 2 Years Postoperative in Adult Spinal Deformity Surgery.” (Podium) 30<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), March 22-24, 2023 in Dublin, Ireland.
  123. Mathew J, Lombardi JM, Lin H, Lee NJ, Boddapati V, Sardar ZM, Lenke LG, Lehman RA. “Is Sexual Dysfunction an Issue after Undergoing a C2-Sacrum Posterior Spinal Fusion?” (E-Poster) 30<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), March 22-24, 2023 in Dublin, Ireland.
  124. Fields M, Zaifman J, Rymond C, Quan T, Lee NJ, Roye BD, Vitale MG. “Utilizing Machine Learning to Identify Early Onset Scoliosis Patients at High Risk for Extended Length of Stay after Spinal Fusion.” (E-Poster) 30<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), March 22-24, 2023 in Dublin, Ireland.
  125. Orosz L, Lee NJ, Yamout T, Gum J, Lehman RA, Poulter G, Haines C, Jazini E, Good C. “90-Day Complication and Revision Surgery Rates Using Navigated Robotics in Thoracolumbar Spine Surgery.” (Podium) 30<sup>th</sup> International Meeting on Advanced Spine Techniques (IMAST), March 22-24, 2023 in Dublin, Ireland.
  126. Lai C, Mohanty S, Hassan FM, Taber C, Williams J, Lee NJ, Sardar ZM, Lehman RA, Lenke LG. Forward Global Sagittal Alignment of The Cranium Relative to The Hips Drives Surgical Complexity and is Associated with a More Adverse Perioperative Course. (Podium) 31st International Meeting on Advanced Spine Techniques. San Diego, CA, USA. April 10-13, 2024.
  127. Fields MW, Lee NJ, Herbert MM, Greisberg G, Malka MS, Morrissette C, Sardar ZM, Lenke LG, Lombardi JM, Lehman RA. “Can Patient Specific Precontoured Rod Instrumentation Reduce the Rate of Proximal Junctional Kyphosis for Adult Spinal Deformity? A Propensity Score Matched Analysis.” (Podium) 31st International Meeting on Advanced Spine Techniques. San Diego, CA, USA. April 10-13, 2024.

129. Lee NJ, Lombardi JM, Hung CW, Roth S, Scheer J, Simhon M, Fields M, Platt A, Bakhsheshian J, Stephan S, Mikhail C, Lehman RA. "What is The Safe Starting Point and Burr Depth for Robot-Assisted Pedicle Screw Placement? an Anatomic Ct-Based Study on 1,000 Pedicles." (E-Poster) 31st International Meeting on Advanced Spine Techniques. San Diego, CA, USA. April 10-13, 2024.

#### **Institute for Healthcare Improvement (IHI) National Forum**

130. Brown N, Lee NJ, Radbill BA. Modified Resident Scheduling: An Attempt to Reduce Length of Stay Through Increased Provider Continuity. Poster session presented at: Institute for Healthcare Improvement (IHI). 25th Annual National Forum on Quality Improvement in Health Care; 2013 Dec 9-11; Orlando, FL.

#### **International Society for the Advancement of Spine Surgery**

131. Lee NJ, Buchanan IA, Zuckerman SL, Boddapati V, Leung E, Park PJ, Mathew J, Buchholz AL, Pollina J, Jazini E, Haines CM, Schuler TC, Khan A, Mullin JP, Good CR, Lombardi JM, Lehman RA. The Trends in Robot Complications, Operative Efficiency, Radiation Exposure, and Clinical Outcomes After Robot-Assisted Spine Surgery: A Multicenter Study of 722 Patients and 5005 Screws from 2015-2019. Session: Posters. ISASS 2021
132. Lee NJ, Buchanan IA, Zuckerman SL, Boddapati V, Leung E, Park PJ, Mathew J, Buchholz AL, Pollina J, Jazini E, Haines CM, Schuler TC, Khan A, Mullin JP, Good CR, Lombardi JM, Lehman RA. Robot-Assisted Spine Surgery in Complex Adult Spinal Deformity: Surgery: Multicenter Trends (2016-2020) of Robot Time Per Screw, Radiation Exposure, Screw Accuracy, and Robot Abandonment. Session: Posters. ISASS 2021

#### **International Spinal Deformity Symposium (ISDS)**

133. Lee NJ, Lombardi JM, Hung CW, Roth S, Scheer J, Simhon M, Fields M, Platt A, Bakhsheshian J, Stephan S, Mikhail C, Lehman RA. What is the Safe Starting Point and Burr Depth for Robot-Assisted Pedicle Screw Placement? An Anatomic CT-based Study on 1,000 Pedicles. E-Poster. International Spinal Deformity Symposium (ISDS). December 1-2, 2023, New York, NY

#### **International Congress of Early Onset Scoliosis (ICEOS)**

134. Fields MW, Zaifman J, Rymond CC, Quan T, Lee NJ, Roye BD, Vitale MG. Utilizing a comprehensive machine learning approach to identify patients at high risk for extended length of stay following spinal deformity surgery in pediatric patients with early onset scoliosis. 16th International Congress on Early Onset Scoliosis (ICEOS). Rome, Italy. November 16-18, 2022. (Podium Presentation)

#### **Lumbar Spine Research Society (LSRS)**

135. Di Capua J, Somani S, Kim JH, Lee NJ, Kothari P, Cho SK. "Diabetes Mellitus as a Predictor for Adverse Outcomes in Adult Spinal Deformity Cases." 9th Annual Lumbar Spine Research Society Conference
136. Somani S, Kothari P, Di Capua J, Kim JH, Lee NJ, Kim J, Leven D, Cho SK. "ASA Class as an Independent Risk Factor for Complications After Adult Spinal Deformity Surgery." 9th Annual Lumbar Spine Research Society Conference
137. Somani S, Kim JH, Di Capua J, Kothari P, Kim J, Leven D, Lee NJ, Cho SK. "Age Stratification and Associated Postoperative Complications Following Adult Spinal Deformity Surgery." 9th Annual Lumbar Spine Research Society Conference

138. Somani S, Di Capua J, Kim JH, Lee NJ, Kothari P, Leven D, Kim J, Cho SK. "Preoperative Anemia as an Independent Risk Factor for Complications Following Elective Adult Spinal Deformity Surgery." 9th Annual Lumbar Spine Research Society Conference
139. Kim J, Di Capua J, Somani S, Bronheim R, Lee NJ, Kothari P, Cho SK. "Frailty is Predictive of Adverse Postoperative Events in Patients Undergoing Lumbar Fusion." 9th Annual Lumbar Spine Research Society Conference
140. Di Capua J, Somani S, Kim JH, Lee NJ, Kothari P, Deepak K, Cho SK. "High Risk Subgroup Membership as a Risk Factor for Post-Operative Complications after Posterior Lumbar Fusion." 10th Annual Lumbar Spine Research Society Conference
141. Vig K, Hussain A, Merrill R, Kim Jun, Dowdell J, Lee NJ, Di Capua J, Jacobs S, Ukogu C, Cho SK. "A Spine in Limbo: Does the Difference Between Standing and Supine Spino-pelvic Measurements of Patients with Adult Spinal Deformity Correlate With Surgical Decision Making?" (PODIUM) 10th Annual Lumbar Spine Research Society Conference.
142. Di Capua J, Somani S, Kim JH, Lee NJ, Kothari P, Cho SK. "Diabetes Mellitus as a Predictor for Adverse Outcomes in Adult Spinal Deformity Cases." 9th Annual Lumbar Spine Research Society Conference
143. Somani S, Kothari P, Di Capua J, Kim JH, Lee NJ, Kim J, Leven D, Cho SK. "ASA Class as an Independent Risk Factor for Complications After Adult Spinal Deformity Surgery." 9th Annual Lumbar Spine Research Society Conference
144. Somani S, Kim JH, Di Capua J, Kothari P, Kim J, Leven D, Lee NJ, Cho SK. "Age Stratification and Associated Postoperative Complications Following Adult Spinal Deformity Surgery." 9th Annual Lumbar Spine Research Society Conference
145. Somani S, Di Capua J, Kim JH, Lee NJ, Kothari P, Leven D, Kim J, Cho SK. "Preoperative Anemia as an Independent Risk Factor for Complications Following Elective Adult Spinal Deformity Surgery." 9th Annual Lumbar Spine Research Society Conference
146. Kim J, Di Capua J, Somani S, Bronheim R, Lee NJ, Kothari P, Cho SK. "Frailty is Predictive of Adverse Postoperative Events in Patients Undergoing Lumbar Fusion." 9th Annual Lumbar Spine Research Society Conference
147. Di Capua J, Somani S, Kim JH, Lee NJ, Kothari P, Deepak K, Cho SK. "High Risk Subgroup Membership as a Risk Factor for Post-Operative Complications after Posterior Lumbar Fusion." 10th Annual Lumbar Spine Research Society Conference
148. Vig K, Hussain A, Merrill R, Kim Jun, Dowdell J, Lee NJ, Di Capua J, Jacobs S, Ukogu C, Cho SK. "A Spine in Limbo: Does the Difference Between Standing and Supine Spino-pelvic Measurements of Patients With Adult Spinal Deformity Correlate With Surgical Decision Making?" (PODIUM) 10th Annual Lumbar Spine Research Society Conference.

#### **North American Spine Society (NASS)**

149. Nathan J. Lee, Fthimnir M. Hassan, Ted Shi, Anastasia Ferraro, Chun Wai Hung, Steven Roth, Justin K. Scheer, Zeeshan M. Sardar, Joseph M. Lombardi, Lawrence G. Lenke, Ronald A. Lehman. "Exploring the Indications, Failures, and Treatment of Complications After a C2 to Pelvis Fusion." (E-POSTER), NASS 39th Annual Meeting, September 24-28, 2024, Chicago, Illinois.
150. Sarthak Mohanty, Zeeshan M. Sardar, Michael Kelly, Josephine Coury, Justin Reyes, Fthimnir M. Hassan, Nathan J. Lee, Justin K. Scheer, Steven Roth, Chun Wai Hung, Joseph M. Lombardi, Ronald A. Lehman, Lawrence G. Lenke. "Does Normalizing T4-

- L1Pa Relationship in Long-Segment Fusions Independently Reduce Mechanical Complications and Improve Patient Reported Outcomes?" (E-POSTER), NASS 39th Annual Meeting, September 24-28, 2024, Chicago, Illinois.
151. Leven DM, Shin JI, Skovrlj B, Guzman JZ, Lee NJ, Steinberger J, Kothari P, Cho SK. "Comorbidities and Operative Factors Are Predictive of Mortality Following Adult Deformity Surgery" (PODIUM). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois.
  152. Skovrlj B, Steinberger J, Kothari P, Leven DM, Lee NJ, Guzman JZ, Shin JI, Cho SK. "Predictors of unplanned readmission for adults undergoing elective lumbar spine fusion" (E-POSTER). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois.
  153. Steinberger J, Leven DM, Skovrlj B, Shin JI, Lee NJ, Kothari P, Guzman J, Cho SK. "Morbidity and Mortality Associated with Transoral Approaches to the Cervical Spine" (PODIUM). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois. Value Award Nominee
  154. Steinberger J, Kothari P, Guzman JZ, Skovrlj B, Lee NJ, Leven DM, Cho SK. "Readmissions after Spinal Deformity Surgery" (E-POSTER). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois
  155. Skovrlj B, Lee NJ, Leven DM, Steinberger J, Guzman JZ, Shin JI, Kothari P, Cho SK. "Nutritional Status as an Adjunct Risk Factor for Increased Complications and Prolonged Length of Hospital Stay in Adults Undergoing Elective Posterior Cervical Fusion Surgery"(PODIUM). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois. Value Award Nominee
  156. Steinberger J, Kothari P, Lee NJ, Skovrlj B, Leven DM, Shin JI, Guzman JZ, Cho SK. "Influencing Factors on Length of Stay in Adults Undergoing Elective Posterior Cervical Fusion: An Analysis of the American College of Surgeons National Surgical Quality Improvement Program Database" (E-POSTER). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois.
  157. Steinberger J, Kothari P, Guzman JZ, Lee NJ, Shin JI, Skovrlj B, Leven DM, Cho SK. "Duration of Anesthesia as a Risk Factor for Postoperative Complications in Patients Undergoing Posterior Lumbar Fusion" (PODIUM). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois. Value Award Nominee
  158. Skovrlj B, Leven DM, Lee NJ, Kothari P, Shin JI, Steinberger J, Guzman JZ, Cho SK. "Impact of Preoperative Anemia on Perioperative Outcomes in Adults Undergoing Elective Posterior Cervical Fusion" (E-POSTER). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois.
  159. Kothari P, Guzman JZ, Skovrlj B, Lee NJ, Steinberger J, Leven DM, Shin JI, Cho SK. "Morbidity associated with pelvic fixation in patients undergoing fusion for spinal deformity: a matched propensity adjusted analysis" (E-POSTER). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois.
  160. Guzman JZ, Kothari P, Skovrlj B, Lee NJ, Steinberger J, Leven DM, Shin JI, Cho SK. "Does Pelvic Fixation Increase Morbidity and Mortality in Patients Undergoing Posterior Lumbar Fusion?" (PODIUM). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois. Value Award Nominee
  161. Skovrlj B, Lee NJ, Kothari P, Steinberger J, Guzman JZ, Shin JI, Leven DM, Cho SK. "Nutritional Status as an Adjunct Risk Factor Any Major Complication, Prolonged Length of Hospital Stay, and 30 Day Unplanned Readmission in Adults Undergoing Elective Posterior Lumbar Fusion" (E-POSTER). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois.

162. Leven DM, Guzman JZ, Lee NJ, Korthari P, Skovrlj B, Steinberger J, Shin JI, Cho SK. "Factors Associated with Increased Length of Stay Following Adult Deformity Surgery" (E-POSTER). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois.
163. Guzman JZ, Lee NJ, Shin JI, Leven DM, Skovrlj B, Steinberger J, Kothari P, Cho SK. "Influence of Smoking on Wound Complications in Adults Undergoing Elective Posterior Lumbar Fusion" (E-POSTER). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois.
164. Leven DM, Kothari P, Skovrlj B, Steinberger J, Guzman JZ, Lee NJ, Shin JI, Cho SK. "Higher American Society of Anesthesiology Score is an Independent Risk Factor for Complications Following Adult Deformity Surgery" (PODIUM). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois.
165. Lee NJ, Leven DM, Steinberger J, Skovrlj B, Guzman JZ, Korthari P, Shin JI, Cho SK. "Risk Factors for Hospital-Acquired Conditions and Associated Complications Following Anterior Cervical Discectomy and Fusion" (E-POSTER). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois.
166. Leven DM, Lee NJ, Kothari P, Steinberger J, Skovrlj B, Shin JI, Guzman JZ, Cho SK. "Risk Factors for Readmission Following Posterior Lumbar Fusions" (PODIUM). North American Spine Society (NASS) 30<sup>th</sup> Annual Meeting, October 2015, Chicago, Illinois.
167. Kothari P, Guzman JZ, Lee NJ, Steinberger J, Shin JI, Skovrlj B, Leven DM, Cho SK. "Is ASA Score a Predictor of 30 Day Perioperative Readmission in Adults Undergoing Posterior Lumbar Fusion?" (POSTER). North American Spine Society (NASS) 30th Annual Meeting, October 2015, Chicago, Illinois.
168. Lee NJ, Kothari P, Guzman JZ, Shin JI, Somani S, Capua JD, Kim R, Kim JS, Cho SK. "Frailty Index is a Significant Predictor of Complications and Readmissions Following Posterior Lumbar Fusion" (E-POSTER). North American Spine Society (NASS) 31th Annual Meeting, October 2016, Boston, Massachusetts.
169. Lee NJ, Kothari P, Guzman JZ, Shin JI, Somani S, Capua JD, Kim R, Kim JS, Cho SK. "Number of Major Complications as a Predictor for Mortality and Length of Stay in Elective Anterior Lumbar Fusion (ALF) in ACS NSQIP" (E-POSTER). North American Spine Society (NASS) 31th Annual Meeting, October 2016, Boston, Massachusetts.
170. Lee NJ, Kothari P, Guzman JZ, Shin JI, Somani S, Capua JD, Kim R, Kim JS, Cho SK. "Racial Disparity in Total Hospital Length of Stay for Adults Undergoing Elective ACDF" (E-POSTER). North American Spine Society (NASS) 31th Annual Meeting, October 2016, Boston, Massachusetts.
171. Kim J, Lee NJ, Kothari P, Somani S, Di Capua J, Kim JH, Leven D, Cho SK. "Age as a Risk Factor Following Anterior Cervical Discectomy and Fusion (ACDF)." North American Spine Society 31st Annual Meeting. October 2016, Boston, Massachusetts.
172. Somani S, Di Capua J, Kim JH, Kim J, Leven D, Lee NJ, Kothari P, Cho SK. "ASA as a Risk Factor Following Anterior Cervical Discectomy and Fusion (ACDF)." North American Spine Society 31st Annual Meeting. October 2016, Boston, Massachusetts.
173. Somani S, Kim JH, Kim J, Leven D, Lee NJ, Kothari P, Di Capua J, Cho SK. "Hypoalbuminemia as a Risk Factor Following Anterior Cervical Discectomy and Fusion (ACDF)." North American Spine Society 31st Annual Meeting. October 2016, Boston, Massachusetts.
174. Kim JH, Lee NJ, Kothari P, Kim J, Leven D, Di Capua J, Somani S, Cho SK. "Risk Factors for LOS Following Anterior Cervical Discectomy and Fusion (ACDF)." North American Spine Society 31st Annual Meeting. October 2016, Boston, Massachusetts.

175. Kothari P, Leven D, Somani S, Kim JH, Di Capua J, Kim J, Lee NJ, Cho SK. "Diabetes is a Risk Factor for Postoperative Complications in Patients Undergoing Anterior Cervical Discectomy and Fusion. An analysis of 8,720 patients." North American Spine Society 31st Annual Meeting. October 2016, Boston, Massachusetts.
176. Hussain A, Merrill R, Kim J, Mui B, Di Capua J, Dowdell J, Lee NJ, Ranson W, Cho SK. "A Spine in Limbo: Does the Difference Between Standing and Supine Spino-pelvic Measurements of Patients With Adult Spinal Deformity Correlate With Surgical Decision Making?" North American Spine Society 32st Annual Meeting
177. Vig K, Hussain A, Lee NJ, Ranson W, Kaji D, Ukogu C, Lima M, Kim J, Cho SK. "High ASA Classification is a Risk Factor for Short Term Adverse Outcomes Following Laminectomy for Removal of Intradural Extramedullary Spinal Tumors." North American Spine Society 32st Annual Meeting
178. Di Capua J, Lee NJ, Somani S, Kim J, Kothari P, Bronheim R, Cho SK. "Nutritional Insufficiency as a Predictor for Adverse Outcomes in Adult Spinal Deformity Cases." North American Spine Society 32st Annual Meeting
179. Somani S, Bronheim R, Kim J, Lee NJ, Di Capua J, Kothari P, Cho SK. "Differences in Patient Characteristics and Operative Outcomes for 7,059 Adult Spinal Deformity Surgeries Between Neurosurgeons and Orthopedic Surgeons." North American Spine Society 32st Annual Meeting
180. Di Capua J, Bronheim R, Kim J, Kothari P, Lee NJ, Somani S, Cho SK. "Hospital Acquired Conditions Following Adult Spinal Deformity Surgery: Predictors for the Development of HACs and HACs as a Risk Factor for Other 30 Day Complications." North American Spine Society 32st Annual Meeting
181. Somani S, Di Capua J, Kim J, Bronheim R, Lee NJ, Kothari P, Cho SK. "Predictors of Discharge Destination Following Elective Adult Spinal Deformity Surgery." North American Spine Society 32st Annual Meeting
182. Kim JS, Lee NJ, Lombardi JM et al. "Extended length of stay after complex adult spinal deformity surgery: predictors and impact on clinical and patient-reported outcomes." (E-Poster). 35th Annual Meeting North American Spine Society 2020. San Diego, California.
183. Lee NJ, Buchanan IA, Zuckerman SL, Boddapati V, Leung E, Park PJ, Mathew J, Buchholz AL, Pollina J, Jazini E, Haines CM, Schuler TC, Khan A, Mullin JP, Good CR, Lombardi JM, Lehman RA. "What Clinical Advantage does the Mazor X have over the Renaissance in Robot-Assisted Spine surgery: A Multicenter Propensity-Matched Analysis of 2,671 Screws and 400 Patients with a 1 Year Minimum Follow up." (E-Poster). 36th Annual NASS 2021. Boston, MA.
184. Lee NJ, Zuckerman SL, Buchanan IA, Boddapati V, Leung E, Park PJ, Mathew J, Buchholz AL, Pollina J, Jazini E, Haines CM, Schuler TC, Khan A, Mullin JP, Good CR, Lombardi JM, Lehman RA. "How does the Mazor X Stealth Edition Compare with the Mazor X for Robot-Assisted Spine Surgery? A Multicenter, Propensity-Matched Analysis of 2,800 Screws and 372 Patients." (E-Poster). 36th Annual NASS 2021. Boston, MA.
185. Lee NJ, Buchanan IA, Zuckerman SL, Boddapati V, Leung E, Park PJ, Mathew J, Buchholz AL, Pollina J, Jazini E, Haines CM, Schuler TC, Khan A, Mullin JP, Good CR, Lombardi JM, Lehman RA. "Is There a Difference in Screw Accuracy, Robot Time Per Screw, Robot Abandonment, and Radiation Exposure Between the Mazor X and the Renaissance? A Propensity-Matched Analysis of 1,179 Robot-Assisted Screws." (E-Poster). 36th Annual NASS 2021. Boston, MA.

186. Zuckerman SL, Lai C, Shen Y, Ha AS, Cerpa M, Kerolus M, Buchanan IA, Lee NJ, Leung E, Lehman RA, Lenke LG. "The Lumbosacral Fractional Curve vs. Maximum Coronal Cobb Angle in Adult Spinal Deformity Patients: Which Matters More?" (Podium). 36th Annual NASS 2021. Boston, MA.
187. Zuckerman SL, Lai C, Shen Y, Kerolus M, Ha AS, Cerpa M, Buchanan IA, Lee NJ, Leung E, Lenke LG. "Understanding the Role of Pelvic Obliquity and Leg Length Discrepancy in Adult Spinal Deformity Patients with Coronal Malalignment: Unlocking the Black Box" (Podium). 36th Annual NASS 2021. Boston, MA.
188. Fields M, Lee NJ, Leung E, Park P, Boddapati V, Osorio J, Buchholz A, Poulter G, Lombardi J, Lehman RA. "Pre-Contoured Rods in Achieving Planned Regional and Global Alignment: A lot of Planning but Does it Matter in Adult Spinal Deformity? A Multicentered Study." 37<sup>th</sup> Annual NASS 2022. Chicago, IL.

#### **Society for Minimally Invasive Spine Surgery (SMISS)**

189. Lee NJ, Boddapati V, Mathew J, Park PJ, Leung E, Buhholz A, Pollina J, Jazini E, Haines C, Schuler T, Good C, Lombardi JM, Lehman RA. "Do robot-related complications influence 1 year reoperations and other clinical outcomes after robot-assisted lumbar arthrodesis? A multicenter assessment of 320 patients" (E-Poster). SMISS Annual Forum 2021. The Cosmopolitan, Las Vegas, NV.

#### **Scoliosis Research Society (SRS)**

190. Lee NJ, Kim JS, Lombardi JM et al. Flexion-extension radiographs underestimate instability in patients with single-level lumbar spondylolisthesis. Comparing flexion-supine imaging may be more appropriate." North American Spine Society 35th Annual Meeting. San Diego, CA, October 7-10, 2020. Scoliosis Research Society (SRS)
191. Kothari PA, Steinberger J, Shin JI, Lee NJ, Guzman JZ, Skovrlj B, Leven DM, Caridi JM, Cho SK. "Influence of Gender on Outcomes after Deformity Spine Surgery" (PODIUM). Scoliosis Research Society (SRS) 50th Annual Meeting, September 2015. Minneapolis, Minnesota.
192. Leven DM, Steinberger J, Skovrlj B, Lee NJ, Kothari PA, Shin JI, Guzman JZ, Caridi JM, Cho SK. "Frailty Index is a Significant Predictor of Complications and Mortality Following Adult Deformity Surgery" (EPOSTER). International Meeting on Advanced Spine Techniques (IMAST) 22nd Annual Meeting, July 2015. Kuala Lumpur, Malaysia.
193. Baum GR, Cerpa M, Park PJ, et al. "The Posterior Cranial Vertical Line (PCVL): A Novel Predictor for Proximal Junctional Kyphosis in Spinal Deformity Surgery." (PODIUM). SRS 2020. Phoenix, Arizona.
194. Lombardi JM, Lee NJ, Vivas AC et al. "Worse Preoperative Health-Related Quality of Life Scores (HRQOL) are Predictive of Achieving Minimum Clinically Important Differences (MCID) in Oswestry Disability Index (ODI) at 1- and 2- Years After Complex Adult Spinal Deformity (ASD) Surgery." (E-Poster). 55th SRS 2020. Phoenix, Arizona.
195. Ha AS, Zuckerman SL, Coury J, Lee NJ, Ferrer X, Buchanan I, Kerolus M, Cerpa M, Lombardi JM, Dyrszka M, Sardar ZM, Lehman RA, Lenke LG. "Central Sacral Pelvic Line (CSPL) is a Useful Radiographic Parameter that Correlates with Clinical Outcomes of Coronal Alignment after Spine Deformity Surgery." (PODIUM). 56th Scoliosis Research Society Annual Meeting 2021. St. Louis, Missouri.
196. Zuckerman SL, Lai C, Shen Y, Cerpa M, Buchanan IA, Kerolus M, Lee NJ, Leung E, Ha AS, Sardar ZM, Lehman RA, Lenke LG. "Postoperative Coronal Malalignment

- After Adult Spinal Deformity Surgery: Incidence, Risk Factors, and Impact on 2-year Outcomes.” (PODIUM). 56th Scoliosis Research Society Annual Meeting 2021. St. Louis, Missouri.
197. Park PJ, Morrissette C, Ferrer X, Hassan F, Lee NJ, Cerpa M, Kim HJ, Sardar ZM, Lenke LG, MEANS Study Group. “The Posterior Cranial Vertical Line (PCVL): A Novel Radiographic Marker for Classifying Global Sagittal Alignment.” (E-POSTER). 57<sup>th</sup> Scoliosis Research Society Annual Meeting 2022. Stockholm, Sweden.
  198. Park PJ, Morrissette, Hassan F, Lee NJ, Shen Y, Herbert M, Lehman RA, Lenke LG. “The Equilibration of Sagittal Alignment Over Time In the Adult Spinal Deformity Patient – Is the Immediate Postoperative Radiograph Misleading in Ultimate Sagittal Alignment?” (PODIUM). 57<sup>th</sup> Scoliosis Research Society Annual Meeting 2022. Stockholm, Sweden.
  199. Fields M, Lee NJ, Leung E, Park P, Boddapati V, Osorio J, Buchholz A, Poulter G, Lombardi J, Lehman RA. “Pre-Contoured Rods in Achieving Planned Regional and Global Alignment: A lot of Planning but Does it Matter in Adult Spinal Deformity? A Multicentered Study.” 57<sup>th</sup> Scoliosis Research Society Annual Meeting 2022. Stockholm, Sweden.
  200. Puvanesarajah, V, Marciano GF, Lee NJ, Lombardi JM, Sardar ZM, Lehman RA, Lenke LG. “The Deformity Angular Ratio: Can Three-Dimensional CT Improve Prediction of Intraoperative Neuromonitoring Events?” 57<sup>th</sup> Scoliosis Research Society Annual Meeting 2022. Stockholm, Sweden.
  201. Nathan J. Lee, Fthimnir Hassan, Alexandra Dionne, Chidebelum Nnake, Mitchell Yeary, Mike Fields, Matt Simhon, Ted Shi, Varun Arvind, Anastasia Ferraro, Matthew Cooney, Erik Lewerenz, Justin Reyes, Steven Roth, Chun Wai Hung, Justin Scheer, Thomas Zervos, Earl D. Thuet, Joseph M. Lombardi, Zeeshan M. Sardar, Ronald A. Lehman, Lawrence Lenke. “Does an Improvement in Intraoperative Neuromonitoring Cord Data Indicate a Reduced Risk for Postoperative Deficit in Spine Surgery?” (E-Poster). 59<sup>th</sup> Scoliosis Research Society Annual Meeting 2024. Barcelona, Spain.
  202. Chun Wai Hung, Fthimnir Hassan, Nathan Lee, Steven Roth, Justin Scheer, Joseph Lombardi, Zeeshan Sardar, Ronald Lehman, Lawrence Lenke “Higher Intraoperative Blood Loss is Associated with Increased Risk of Intraoperative Neuromonitoring Data Loss for the Type 3 Spinal Cord Shape During Spinal Deformity Surgery.” (PODIUM). 59<sup>th</sup> Scoliosis Research Society Annual Meeting 2024. Barcelona, Spain.
  203. Fthimnir Hassan, Sarthak Mohanty, Erik Lewerenz, Chris Mikhail, Stephen Stephan, Andrew Platt, Josh Bakhsheshian, Nathan Lee, Justin Reyes, Gabby Greisberg, Joseph Lombardi, Zeeshan Sardar, Ronald Lehman, Lawrence Lenke. “Comparing 3 and 4 Rod Constructs in Adult Spinal Deformity Patients Fused to the Sacrum: Is there a Difference in Rod Fractures and Revision Rates at a Minimum 2 Year Follow-up?” (E-Poster). 59<sup>th</sup> Scoliosis Research Society Annual Meeting 2024. Barcelona, Spain.
  204. Sarthak Mohanty, Fthimnir Hassan, Nathan Lee, Justin Scheer, Chun Wai Hung, Steven Roth, Erik Lewerenz, Joseph Lombardi, Zeeshan Sardar, Ronald Lehman, Lawrence Lenke. “Early Reoperations Do Not Adversely Affect Long Term Pain and Activity Scores in Adult Deformity Patients.” (PODIUM). 59<sup>th</sup> Scoliosis Research Society Annual Meeting 2024. Barcelona, Spain.
  205. Sarthak Mohanty, Zeeshan Sardar, Michael Kelly, Josephine Coury, Justin Reyes, Fthimnir Hassan, Nathan Lee, Justin Scheer, Steven Roth, Chun Wai Hung, Joseph Lombardi, Ronald Lehman, Lawrence Lenke. “Does Normalizing T4-L1Pa Relationship in Long-Segment Fusions Independently Reduce Mechanical Complications and Improve

Patient Reported Outcomes?" (PODIUM). 59<sup>th</sup> Scoliosis Research Society Annual Meeting 2024. Barcelona, Spain.

**Society of Hospitalist Medicine Annual Meeting**

206. Cho H, Khalil S, Frances W, Bravo N, Markoff B, Lee NJ, Dunn A. Lose the Tube: Preventing Catheter-Associated Urinary Tract Infections. Society of Hospitalist Medicine Annual Meeting 2015. Society of Minimally Invasive Spine Surgery
207. Lee NJ, Lombardi JM, Boddapati V et al. "Clinical and Patient-Reported Outcomes After Robot-Assisted Short-Segment Lumbar Fusion with a Minimum 1-Year Follow-up." (E-Poster). SMISS 2020. Las Vegas, Nevada. Spine: Base to Summit Annual Meeting
208. Reidler JS, Kim JS, Lombardi JM, Vivas AC, Lee NJ, Leung E, Cerpa M, Lenke LG, Lehman RA. Can the Transforaminal Lumbar Interbody Fusion (TLIF) Actually Achieve Lordosis?: Influence of Cage Position and Shape in Achieving Lordosis. Spine: Base to Summit Annual Meeting. Vail, Colorado. Jan 22 -26, 2020.

**Summer Undergraduate Research Symposium at Columbia University**

209. Lee NJ, Borden MA. Optimized Production and Stability of Oxygen Microbubbles. Poster session presented at: Annual Summer Undergraduate Research Fellowship Symposium at Columbia University. 2010 Jan 25; New York, NY.

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**OTHER MEDIA**

1. Nathan J. Lee, Ronald A. Lehman. Current Evidence and Future Applications for Robotics in Spinal Surgery. Spinal News International. July 22<sup>nd</sup>, 2020
2. Nathan J. Lee and Lawrence G. Lenke. Total Spine Series at the Spine Och Hospital. "AIS Case Series #3: Lenke Classification, Treatment and Pearls." 2020.

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**SKILLS/INTERESTS**

Tae Kwon Do (2nd Dan Black Belt), Swimming, Water Polo, Skiing, Paddle-Surfing, Golf, Weight-lifting