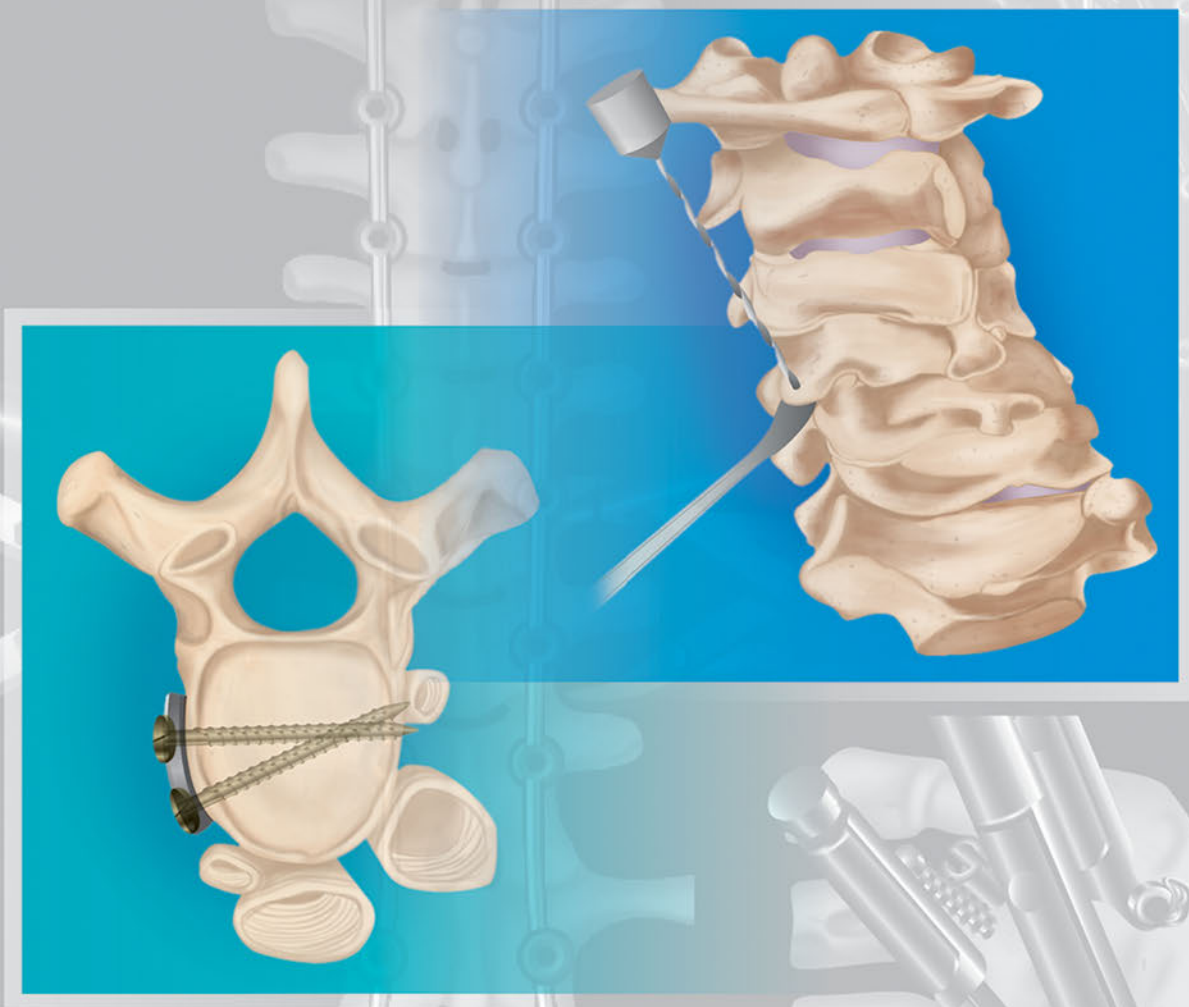


Spine Surgery

Tricks of the Trade

Alexander R. Vaccaro
Todd J. Albert

Third Edition



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Spine Surgery

Tricks of the Trade

Third Edition

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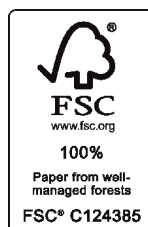
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To my family: Barbara, Stuart, Elliot and Emily. You are inspirational to me every day and in every way. Thank you for all your love and support.

Todd J. Albert

The ultimate academic and clinical role model and inspiration for my career is attributable to one of the greatest icons in Orthopaedics, Dr. Richard H. Rothman. For him I have the greatest gratitude and respect.

Alexander R. Vaccaro

Contents

Video Contents	xv
Foreword	xvii
Preface	xix
Contributors	xxi

Section I Posterior Cervical Decompression

1. Suboccipital Decompression for Chiari I Malformation	2
<i>Karl Balsara, Kim Williams, Jr., Joshua Heller, and Ashwini D. Sharan</i>	
2. Cervical Laminectomy and Foraminotomy	4
<i>Andrew H. Milby, Philip A. Saville, Gregory D. Schroeder, and Harvey E. Smith</i>	
3. Laminoplasty	8
<i>Jeremy S. Smith and Mark J. Spoonamore</i>	
4. Open Reduction of Unilateral and Bilateral Facet Dislocations	12
<i>Moe R. Lim and Alexander R. Vaccaro</i>	

Section II Posterior Cervical Arthrodesis and Instrumentation

5. Occipital Fixation Techniques	16
<i>Michael C. Fu, Rafael A. Buerba, Neal G. Haynes, Troy D. Gust, Paul M. Arnold, and Jonathan N. Grauer</i>	
6. Grafting Methods: Posterior Occipitocervical Junction and Atlantoaxial Segment	20
<i>Robert K. Eastlack, Bradford L. Currier, and Alexander R. Vaccaro</i>	
7. Posterior C1, C2 Fixation Options	23
<i>James Lawrence</i>	
8. Reduction Techniques for Atlantoaxial Rotary Subluxation	27
<i>Justin W. Miller and Rick C. Sasso</i>	
9. Posterior Cervical Wiring	30
<i>Howard B. Levene, George M. Ghobrial, and Jack Jallo</i>	
10. Cervical Lateral Mass Screw Placement (C3–C7)	35
<i>Daisuke Sakai, Yu-Po Lee, and Steven R. Garfin</i>	
11. Cervical Subaxial Transfacet Screw Placement	37
<i>John D. Koerner, Jeffrey M. Spivak, and Alexander R. Vaccaro</i>	
12. Cervical Pedicle Screw Placement	40
<i>Jenna Robbins, Alexander T. Brothers, Arash Emami, and Sina Pourtaheri</i>	

Section III Anterior Cervical Decompression

13. Cervical and Thoracic Translaminar Screw Fixation	44
<i>William E. Neway III, Deepak Joshi, and Peter G. Whang</i>	

14. Transoral Odontoid Resection and Anterior Odontoid Osteotomy	46
<i>Amgad Hanna, Carolina Sandoval-Garcia, and Praveen Deshmukh</i>	
15. Anterior Cervical Discectomy and Foraminotomy	50
<i>Kern Singh, Steven J. Fineberg, and Benjamin C. Mayo</i>	
16. Anterior Cervical Foraminotomy Technique	53
<i>Peter Syre, Luke Macyszyn, Sarah Nyirjesy, Paul W. Millhouse, John D. Koerner, Alexander R. Vaccaro, and Neil R. Malhotra</i>	
17. Exposure of the Vertebral Artery	57
<i>Brandon G. Rocque, Gregory D. Schroeder, and Daniel K. Resnick</i>	
18. Anterior Cervical Corpectomy	60
<i>James C. Farmer</i>	
19. Anterior Open Reduction Technique for Unilateral and Bilateral Facet Dislocations	63
<i>G. Alexander Jones, Ghaith Habboub, and Edward C. Benzel</i>	
Section IV Anterior Cervical Arthrodesis and Instrumentation	
20. Odontoid Screw Placement	68
<i>Darrel S. Brodke, Prokopis Annis, and Brandon D. Lawrence</i>	
21. Anterior C1, C2 Arthrodesis: Lateral Approach of Barbour and Whitesides	71
<i>Michael Schiraldi, Eli M. Baron, and Alexander R. Vaccaro</i>	
22. Placement of Cervical Mesh and Expandable Cages	74
<i>Eric Giang, Eric Chen, and Kris Radcliff</i>	
23. Placement of Anterior Low-Profile Cervical Interbody Spacer and Screws	76
<i>Eric Giang, Eric Chen, and Kris Radcliff</i>	
24. Anterior Cervical Plating: Static versus Dynamic	78
<i>Andrew A. Indresano and Paul A. Anderson</i>	
Section V Posterior Thoracic Decompression	
25. Transpedicular Decompression	82
<i>Rafael A. Buerba, Michael C. Fu, Kingsley R. Chin, and Jonathan N. Grauer</i>	
26. Costotransversectomy	85
<i>Jeremy S. Smith and Mark J. Spoonamore</i>	
27. Lateral Extracavitary Approach	89
<i>Howard B. Levene, George M. Ghobrial, and Jack Jallo</i>	
Section VI Posterior Thoracic Arthrodesis and Instrumentation	
28. Supralaminar, Infralaminar, and Transverse Process Hook Placement	94
<i>Steven C. Ludwig and Alexander R. Vaccaro</i>	
29. Sublaminar Fixation	97
<i>Michael J. Vives, Sanjeev Sabharwal, and Neel Shah</i>	

30. Thoracic Pedicle Screw Placement: Anatomical, Straightforward, and In-Out-In Techniques	101
<i>Jason Ferrel, Thai Trinh, and David Hannallah</i>	
Section VII Anterior Thoracic Decompression	
31. Open Transthoracic Diskectomy	106
<i>Grant D. Shifflett, Russel C. Huang, Jennifer Shue, and Patrick F. O'Leary</i>	
32. Open Thoracic Corpectomy via the Transthoracic Approach	109
<i>James D. Kang and Mustafa H. Khan</i>	
Section VIII Anterior Thoracic Arthrodesis and Instrumentation	
33. Anterior Thoracic Arthrodesis after Corpectomy (Expandable Cages, Metallic Mesh Cages)	114
<i>Michael C.L. Suryo, Sapan D. Gandhi, and D. Greg Anderson</i>	
34. Anterior Thoracic and Thoracolumbar Plating Techniques	117
<i>Kelsey Lau, Paul W. Millhouse, Caleb Behrend, and Marcel F. S. Dvorak</i>	
Section IX Posterior Lumbar Decompression	
35. Open Lumbar Microscopic Diskectomy	122
<i>David A. Wong</i>	
36. Open Far Lateral Disk Herniation	126
<i>Prashanth J. Rao and Ralph J. Mobbs</i>	
37. Open Laminectomy, Medial Facetectomy, and Foraminotomy	129
<i>William Neway, Stephen Pehler, and Peter G. Whang</i>	
38. Safe Exposures in Revision Surgery	132
<i>Rajiv Taliwal</i>	
Section X Posterior Lumbar Arthrodesis and Instrumentation	
39. Lumbar Pedicle Screw Placement	136
<i>Abhijeet Kadam, Paul W. Millhouse, Alexander R. Vaccaro, and Robert W. Molinari</i>	
40. Cortical Screw Fixation	139
<i>Brian W. Su and Wellington Hsu</i>	
41. Transforaminal and Posterior Lumbar Interbody Fusion	144
<i>Virgilio Matheus and Todd Francis</i>	
42. Guided Lumbar Interbody Fusion	150
<i>Morgan P. Lorio and Jeffrey Guyer</i>	
43. Spinous Process Plating	155
<i>Tyson Garon, Kevin P. McCarthy, Gregory D. Schroeder, and C. Chambliss Harrod</i>	
44. Transfacet Fixation	160
<i>Christopher Chaput and Brian W. Su</i>	

45. Intraileal Screw/Bolt Fixation, S2 Alar Iliac Screw Fixation	163
<i>Ryan P. Ponton, Nelson S. Saldua, and James S. Harrop</i>	
46. Iliosacral Screw Fixation and Transiliac Rod Placement Techniques	167
<i>Anuj Singla and Adam Shimer</i>	
47. Intrasacral (Jackson) and Galveston Rod Contouring and Placement Techniques	169
<i>Roger P. Jackson and Douglas C. Burton</i>	
48. Sacral Screw Fixation	174
<i>Chris Villar and Daniel R. Fassett</i>	
49. Spondylolysis Repair (Pars Interarticularis Repair)	177
<i>Christopher M. Bono and Andrew J. Schoenfeld</i>	
Section XI Anterior Lumbar Decompression	
50. Anterior Lumbar Surgical Exposure Techniques	182
<i>Alice J. Hughes, Paul W. Millhouse, Alexander R. Vaccaro, and Ben B. Pradhan</i>	
51. Anterior Lumbar Discectomy	187
<i>Priscilla Ku Cavanaugh, Caleb Behrend, Matías Petracchi, and Alexander R. Vaccaro</i>	
Section XII Anterior Lumbar Arthrodesis and Instrumentation	
52. Anterior Lumbar Corpectomy via a Minimally Invasive Lateral Approach	192
<i>William D. Smith, Gregory D. Schroeder, and Kyle T. Malone</i>	
53. Anterior Lumbar Interbody Fusion (ALIF)	198
<i>David T. Anderson and Jeffrey A. Rihn</i>	
54. Placement of an Anterior Stand-Alone Interbody Cage with Integrated Screw Fixation ...	202
<i>Cristian Gagnaniello, David Robinson, Remi Nader, and Kevin Seex</i>	
55. Anterior and Anterolateral Lumbar Fixation Plating	205
<i>Thomas N. Scioscia</i>	
Section XIII Deformity	
56. Understanding Spinal Alignment and Assessing Pelvic Measurement Parameters for Deformity Correction	210
<i>Christopher M. Maulucci and Joshua E. Heller</i>	
57. Patient Positioning for Cervical, Thoracic, and Lumbar Deformity Surgery	213
<i>Niobra M. Peterson, Christopher Kong, Alexander R. Vaccaro, and Caleb Behrend</i>	
58. Reduction of High-Grade Spondylolisthesis	216
<i>Dexter Bateman, Caleb Behrend, Alexander R. Vaccaro, Charles C. Edwards, and Charles C. Edwards II</i>	
59. Gaines Procedure for Spondyloptosis	221
<i>Tyson Garon, William A. Robinson, and C. Chambliss Harrod</i>	
60. Lumbosacral Interbody Fibular Strut Placement for High-Grade Spondylolisthesis: Anterior Speed's Procedure and Posterior Procedure	226
<i>Michael E. Janssen, Mario R. Bran and Haitham H. Shareef</i>	

61. Rib Expansion Technique for Congenital Scoliosis	230
<i>Robert M. Campbell, Jr.</i>	
62. Vertebral Body Stapling and Vertebral Body Tethering for Spinal Deformity	235
<i>Joshua M. Pahys, Patrick J. Cahill, Amer F. Samdani, and Randal R. Betz</i>	
63. Posterior Rib Osteotomy for Rigid Coronal Spinal Deformities	239
<i>Venu M. Nemani, Oheneba Boachie-Adjei, and Bernard A. Rawlins</i>	
64. Thoracoplasty: Anterior, Posterior	241
<i>Luke Madigan</i>	
65. Posterior Spinal Anchor Strategy Placement and Rod Reduction Techniques: Vertebral Column Resection versus Direct Vertebral Column Rotation	244
<i>Lawrence G. Lenke and Fernando E. Silva</i>	
66. Anterior Spinal Anchor Strategy for Deformity: Placement and Rod Reduction Techniques	248
<i>Rafael A. Buerba, Michael C. Fu, Keith H. Bridwell, and Jonathan N. Grauer</i>	
67. Fixation Strategies and Rod Reduction Strategies for Sagittal Plane Deformities	251
<i>Kirkham B. Wood</i>	
68. Vertebral Column Resection	254
<i>Priyanka Kumar, Paul W. Millhouse, Caleb Behrend, and Alexander R. Vaccaro</i>	
69. Posterior Cervicothoracic Osteotomy	259
<i>Paul Licina and Geoffrey N. Askin</i>	
70. Posterior Smith–Peterson, Pedicle Subtraction, and Vertebral Column Resection Osteotomy Techniques	264
<i>Vijay Shekarappa, Alpesh A. Patel, Gregory D. Schroeder, and Jason W. Savage</i>	
71. Intraoperative Computed Tomography–Guided Instrumentation for Deformity Spine Surgery	272
<i>Sadashiv Karanth and Daniel R. Fassett</i>	
Section XIV Pain Management	
72. Cervical Selective Nerve Root Block via Transforaminal Injection	278
<i>Lisa Marino</i>	
73. Atlantoaxial Joint Injection Technique	280
<i>Zach Broyer</i>	
74. Lumbar Transforaminal and Interlaminar Epidural Steroid Injection	282
<i>Jeremy Simon, Steven Derrington, and Joshua Armstrong</i>	
75. Sacroiliac Joint Injection Technique	285
<i>Ari Greis</i>	
Section XV Patient Safety	
76. Techniques for Minimizing Radiation Exposure during Fluoroscopy Procedures	288
<i>William Ryan Spiker</i>	

77. Effective Use of Neuromonitoring during Spinal Deformity Surgery	292
<i>Abhijeet Kadam, Paul W. Millhouse, Caleb Behrend, and Alexander R. Vaccaro</i>	
Section XVI Minimally Invasive Procedures	
78. Setup and Use of the Microscope in Spinal Applications	298
<i>Thai Trinh, Jason Ferrel, and David Hannallah</i>	
79. Robotic Applications in Spinal Surgery	301
<i>Mark E. Oppenlander, Christopher M. Maulucci, George M. Ghobrial, and Srinivas K. Prasad</i>	
80. Endoscopic Percutaneous Lumbar Decompressive Techniques	303
<i>Anthony T. Yeung</i>	
81. Minimally Invasive Tubular Posterior Cervical Decompressive Techniques	309
<i>Sina Pourtaheri, Alexander T. Brothers, Ki Hwang, and Arash Emami</i>	
82. Mini-Open Anterolateral Retropleural Approach for Thoracic Corpectomy	312
<i>Amir Ahmadian, Ali A. Baaj, and Juan S. Uribe</i>	
83. Minimally Invasive Tubular Posterior Lumbar Decompressive Techniques	315
<i>Amir Ahmadian, Armen Deukmedjian, and Juan S. Uribe</i>	
84. Presacral Interbody Fusion	318
<i>David Hart, Sean Reynolds, and Teresa Schroeder</i>	
85. Minimally Invasive Tubular Posterior Lumbar Far Lateral Discectomy	323
<i>Rishi Wadhwa, Hai Le, Rajiv Saigal, and Praveen Mummaneni</i>	
86. Minimally Invasive Posterior Transforaminal Lumbar Interbody Fusion	325
<i>Rajiv Taliwal, Alexander T. Brothers, and Alexander R. Vaccaro</i>	
87. Percutaneous Cement Augmentation Techniques (Vertebroplasty, Kyphoplasty)	327
<i>Gregory Gebauer</i>	
88. Minimally Disruptive Approach to the Lumbar Spine: Transpoas Lateral Lumbar Interbody Fusion	332
<i>M. A. Khaleel and A. P. White</i>	
89. Percutaneous Lumbar Pedicle Screw Fixation	337
<i>John H. Pelozza, Paul W. Millhouse, Gregory D. Schroeder, and Alexander R. Vaccaro</i>	
90. Anterior Thoracoscopic Deformity Correction and Instrumentation	341
<i>Alex Ching</i>	
91. Minimally Invasive Rod-Insertion Techniques for Multilevel Posterior Thoracolumbar Fixation	343
<i>Michael C. L. Suryo, Sapan D. Gandhi, and D. Greg Anderson</i>	
92. Minimally Invasive Posterior Deformity Correction Techniques	345
<i>Kelley E. Banagan and Steven C. Ludwig</i>	
93. Endoscopic Thoracic Decompression, Graft Placement, and Instrumentation Techniques	348
<i>Max C. Lee, Kyle D. Fox, and Daniel H. Kim</i>	

94. Minimally Invasive Sacroiliac Fusion	351
<i>Alexandra Schwartz, Gregory D. Schroeder, Alexander R. Vaccaro, and Steven R. Garfin</i>	
Section XVII Tumor Management	
95. Spinal Radiosurgery for Metastases	356
<i>George M. Ghobrial, Mark E. Oppenlander, and Srinivas Prasad</i>	
96. Surgical Removal of Intradural Spinal Cord Tumors	358
<i>Paul E. Kaloostian, Ziya L. Gokaslan, and Timothy F. Witham</i>	
Section XVIII Bone Grafting and Reconstruction	
97. Anterior and Posterior Iliac Crest Bone Graft Harvesting	364
<i>Alexander T. Brothers, Alexander R. Vaccaro, and Brett A. Taylor</i>	
98. Autologous Fibula and Rib Harvesting	366
<i>Andrew H. Milby and Joshua D. Auerbach</i>	
Section XIX Spinal Immobilization	
99. Halo Orthosis Application	372
<i>Kenneth C. Moghadam, Gregory D. Schroeder, and R. John Hurlbert</i>	
100. Closed Cervical Traction Reduction Techniques	376
<i>Gianluca Vadalà, Fabrizio Russo, and Vincenzo Denaro</i>	
Section XX Spinal Arthroplasty / Motion-Sparing Procedures	
101. Nucleus Pulposus Replacement Techniques	382
<i>Stelios Koutsoumbelis, David Essig, and Jeff Silber</i>	
102. Posterior Facet Joint Replacement	384
<i>Peter H. Dawson, Federico P. Girardi, Frank P. Cammisa, Jr., and Seamus Morris</i>	
103. Posterior Interspinous Devices	387
<i>Kern Singh, Steven J. Fineberg, Benjamin C. Mayo, and Frank M. Phillips</i>	
104. Cervical Disk Replacement	391
<i>Justin W. Miller and Rick C. Sasso</i>	
105. Lumbar Spinal Arthroplasty	394
<i>Scott L. Blumenthal and Jeffrey L. Biehn</i>	
106. Lateral Lumbar Spinal Arthroplasty	397
<i>Carlos Castro, Luis Marchi, Leonardo Oliveira, Thiago Coutinho, Thabata Bueno, Luiz Pimenta, and Alexander R. Vaccaro</i>	
Section XXI Complications Management	
107. Posterior Revision Strategies for Dura and Nerve Root Exposure following a Previous Laminectomy	402
<i>Tristan Fried, Caleb Behrend, Erik Spayde, and Alexander R. Vaccaro</i>	

108. Effective Use of Intraoperative Hemostatic Agents and Devices to Minimize Intraoperative Blood Loss	405
<i>Dustin J. Schuett and Nelson S. Saldua</i>	
109. Managing Catastrophic Great Vessel Injury in Surgery on the Thoracolumbar Spine	408
<i>Cristian Gragnaniello, David Robinson, Remi Nader, Kevin Seex, and Alexander R. Vaccaro</i>	
110. Dural Repair and Patch Techniques: Anterior and Posterior	412
<i>Gregory Gebauer</i>	
111. The Surgical Management of Junctional Breakdown above a Spinal Fusion in the Thoracic and Lumbar Spine	416
<i>Timothy Tan, Paul W. Millhouse, and Stewart Kerr</i>	
112. Wound VAC Management for Spinal or Bone Graft Wound Infections	419
<i>William Ryan Spiker</i>	
Index	422

Video Contents

Video 1.1 This video demonstrates a midline suboccipital craniectomy and laminectomy of C1 for decompression of a Chiari malformation.

Video 3.1 A C3-7 laminoplasty is performed in a patient with multilevel stenosis with preserved lordosis and no neck pain.

Video 5.1 Video illustration of the key steps described in Chapter 5 on a representative model.

Video 8.1 Justin W. Miller performing an atlantoaxial rotatory subluxation/C1-2 fixation with C1 lateral mass screws and C2 translaminar screws—technique for instrumentation of C1–C2 following reduction of atlantoaxial rotatory subluxation.

Video 10.1 Authors' preferred technique for the placement of lateral mass screws start 1 mm cephalad and 1 mm medial to the midpoint of the center of the lateral mass. The trajectory of the drill is aimed 20 degrees lateral and superior.

Video 14.1 Transoral approach for odontoidectomy and resection of retro-odontoid mass.

Video 15.1 Intraoperative footage of an open anterior cervical discectomy and foraminotomy procedure.

Video 17.1 Exposure of the vertebral artery: Brandon G. Rocque performing a resection of a metastatic paraganglioma involving the lateral mass of C2, including sacrifice of the vertebral artery at its exit from the C3 transverse foramen.

Video 20.1 Video of live surgical treatment of Type 2 odontoid fracture with odontoid screw placement.

Video 24.1 Demonstrating the application of a translation dynamic plate following anterior cervical discectomy and fusion.

Video 26.1 The patient in this video has severe thoracic stenosis caused by pathologic retrovertebral compression; a costotransversectomy was chosen as the access method to adequately decompress, stabilize and restore normal alignment.

Video 29.1 Performing a sublaminar fixation during a spinal deformity correction case.

Video 30.1 This video demonstrates the posterior thoracic spine approach and exposure, identification of anatomical and radiographic landmarks, and thoracic pedicle screw placement technique.

Video 31.1 Russel C. Huang performs an open transthoracic discectomy.

Video 36.1 This video demonstrates far lateral discectomy L4/5.

Video 42.1 “GLIF Technique” video demonstrating key principles of ARC portal system targeting and subsequent GLIF cage delivery. (Narrated and composed by Eric Sokolowski.)

Video 52.1 This video demonstrates the technique of an anterior lumbar partial corpectomy for metastatic disease through a minimally invasive lateral approach. This approach is beneficial because it allows for resection of the metastatic lesion without the morbidity associated with a traditional thoracotomy.

Video 54.1 Intraoperative video demonstration of the ALIF procedure utilizing 2 different systems of cages with incorporated screws. Step-wise dissection is shown from skin incision to the final X-ray.

Video 61.1 The operative technique of VEPTR treatment of congenital scoliosis.

Video 63.1 Concave rib osteotomy surgical technique in a patient with a rigid kyphoscoliotic deformity.

Video 65.1 The technique for direct vertebral body rotation using vertebral column manipulation device is demonstrated.

Video 66.1 This video demonstrates the surgical technique for placement of two-screw/two-rod constructs and reduction maneuvers for thoracolumbar/lumbar scoliosis for anterior spinal anchoring using sawbones models.

Video 67.1 Dr. Kirkham Wood describes the two principle methods of kyphosis reduction. One is the traditional cantilever method of placing the rods at the same time into sequentially more distal fixation points. The other method involves connecting two parallel rods on each side at the midpoint, thereby reducing the kyphosis gently from each end simultaneously to reduce strain on the distal screws.

Video 69.1 Posterior cervicothoracic osteotomy performed on cadaver.

Video 72.1 When injecting, contrast is limited from passing deep to the neural foramen. Failing to do so may result in an epidural rather than selective nerve block.

Video 73.1 Zach Broyer performing a lateral atlantoaxial joint injection (C1–C2 injection). A fluoroscopic image of the lateral atlantoaxial joint injection including the contrast injection is shown.

Video 74.1 This is a fluoroscopically-guided lumbar interlaminar epidural steroid injection at L5-S1. The needle is placed lateral to the spinous processes between the lamina and advanced until a firm feeling is appreciated. The needle is then advanced slowly with constant pressure on the syringe until loss of resistance is appreciated.

Video 74.2 The vertebral endplates are aligned and an oblique view is obtained of the target foramen, normally with the superior articular process projecting slightly above the endplate and cutting about 25-50% of the superior aspect of the vertebra. The needle is advanced under the "chin of the scotty dog" (on a trajectory under the pedicle). An anterior-posterior view is used to confirm that the needle does not pass beyond the 6 o'clock position of the pedicle and a lateral view is obtained to confirm the needle resides in the foramen. Contrast is then injected under live fluoroscopy via an extension tube to confirm flow along the peripheral nerve, nerve root sheath and into the epidural space without vascular or intrathecal flow.

Video 75.1 This video demonstrates a step-by-step sacroiliac joint injection using fluoroscopic guidance.

Video 76.1 William Ryan Spiker presenting the basic techniques of fluoroscopy to minimize radiation exposure during spinal surgery.

Video 78.1 This video demonstrates the proper set-up and use of the microscope in the operating room suite.

Video 82.1 Mini-open lateral retro-pleural thoracic corpectomy for osteomyelitis.

Video 85.1 An animation of docking an expandable tubular retractor followed by an intraoperative video showing an minimally invasive extraforaminal L5–S1 microdiscectomy.

Video 88.1 A visual case presentation of a lateral transpoas approach for interbody fusion at L2-3 and L3-4.

Video 93.1 Endoscopic thoracic decompression and graft placement. (Video by Dr. Daniel Kim).

Video 96.1 This video demonstrates the surgical removal of an intradural spinal cord tumor with the resection of a thoracic intradural intramedullary pilocytic astrocytoma.

Video 100.1 The management of cervical spine dislocations is extremely challenging: Graduated closed skeletal weight reduction represents a useful technique to restore spinal alignment and the diameter of the bony canal after traumatic cervical fractures and cervical facet dislocations.

Video 104.1 Justin W. Miller performing a Bryan cervical disk arthroplasty.

Video 106.1 This video demonstrates the surgical procedure for lumbar total disk replacement done through retroperitoneal lateral transpoas approach.

Video 112.1 William Ryan Spiker and Micah Smith presenting the technique of wound VAC placement on a posterior lumbar spine wound.

Foreword

In this third edition of *Spine Surgery: Tricks of the Trade*, Dr. Alexander R. Vaccaro and Dr. Todd J. Albert assemble some of the most well-respected spinal surgeons in the world today to produce a virtual bible of tips, suggestions, and solutions for almost any conceivable spinal surgical procedure.

Through the finely edited chapters—including 30 new topics in this edition, all with a consistent outline of presentation that makes absorbing the details smooth and easy—the authors describe the pearls and wisdom that only come by practicing spinal surgery over an extensive period of time. This type of information is invaluable, for it is not necessarily presented at the many societal and training meetings that spinal surgeons attend where it may be seen as “too esoteric” or “non-scientific.” However, knowledge of these tips and tricks can often mean the difference between a successful surgery and one that goes technically awry with increased difficulty and greater potential for untoward complications.

The art and technique involved in the practice of spinal surgery have evolved immensely over the past 20 years with the use of more minimally invasive methods of neural decompression, spinal column realignment and stabilization—up to and including improved open reconstructive deformity techniques allowing often near-complete 3D correction of disabling spinal deformities in a safe manner. This age of renaissance in our field, with contributions from both orthopaedic and neurosurgical spinal surgeons, has increasingly emphasized linking optimal patient outcomes

to optimal technical performance during spinal surgery. Who would not want to glean tidbits of knowledge that will make their spinal surgical practice safer and more efficient, with fewer complications? This compilation of expert advice and practical tips provides such information, and that is why I feel that this common-sense advice approach to the craft of spinal surgery should be read by everyone, whether learning or practicing the trade—trainees of all levels as well as junior and even senior attending spinal surgeons will find this book invaluable.

I congratulate Drs. Vaccaro and Albert for taking the time and energy to revamp this highly successful book, and I take comfort in the knowledge that it will promote the further growth in the field of spinal surgery that certifies its reputation as a distinct surgical specialty. This unique book elevates our profession to highlight the many nuances and technical aspects that allow for safe and successful spinal surgery, and it will be standard reading for all involved in the practice of spinal surgery for years to come.

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Preface

Examination of the spine as it pertains to human ailments dates as far back as Ancient Egypt (1500 BCE), when the famed Smith Papyrus recorded the management of fractures and dislocations of the cervical spine. By comparison, the modern day practice of spine surgery can be said to have evolved through advances in medical imaging, beginning with the invention of radiology by Röntgen in the late 1800s, through the advent of computed tomography in the 1960s, to the development of magnetic resonance imaging in the 1980s. Indeed, over the past decades new developments in both technology and technique have propelled forward our ability to help improve the lives of patients with spinal disorders in ways unimagined by previous generations of surgeons.

In the past decade, the development of minimally invasive procedures in the management of spinal disorders has flourished and continues to transform the landscape of modern day spine surgery. To remain current with this rapidly advancing field, the editors of *Spine Surgery: Tricks of the Trade* have added new and innovative techniques to the third edition of this celebrated series. Once again, we have sought out the most internationally qualified masters of this art, and with their assistance have produced this repository of up-to-date guidance and instruction covering the most popular treatments of the spine.

This third edition has been fully revised and updated, with the addition of thirty new chapters, the majority of

which detail procedures which did not exist during the publication of the second edition. As in previous editions, each chapter in this text follows a standard format: (1) a concise description of the procedure and key principles; (2) the expectations of what the surgeon is able to achieve with the procedure; (3) the indications and contraindications for the surgical technique; (4) special considerations and instructions when performing the described surgical procedure; (5) tips, pearls, and lessons learned in order to help minimize any complications or difficulties encountered; (6) key procedural steps; (7) pitfalls associated with the described technique; and (8) available bailout, rescue, and salvage procedures, should they become necessary.

We have found great success with this approachable yet comprehensive format, which allows this text to serve as a valuable compendium for a broad range of readers including medical students, residents, spine fellows, pain management specialists, and spine surgeons from an orthopedic and neurosurgical background. We are confident that the new edition of this text will continue to serve a valuable role in the ongoing education of students and practitioners in this great field.

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