The Textbook of Spinal Surgery

Third Edition • Volume 1
To the patients who will benefit from our evolving understanding of surgical indications, techniques, and complications.
Foreword

I first met Dr. Bridwell in the early 1980s at a spine meeting in Minneapolis, where we were introduced by our good friend and host, Dr. Robert Winter. I was a newcomer to St. Louis and Dr. Bridwell was thinking about moving to the area from Cincinnati. We had a conversation at that meeting, which led to more exchanges afterwards and planted the seeds for a lifelong friendship.

Eventually, Dr. Bridwell moved to St. Louis where I had the pleasure of closely following his career. I learned that his dream was to establish a superb academic center for the treatment of spinal deformities and to provide education at a global level. During the quarter of a century that I have known him, I have seen Dr. Bridwell realize this dream with great success and benefitted from his contributions both as a colleague and as a friend. In that time, Dr. Bridwell has not only created a world class institution for the treatment of spinal disorders, he has done an extraordinary job of providing ongoing research activities and creating an educational environment from which everyone can benefit. This textbook stands as a testament to his commendable efforts to achieve these goals.

The first edition of this book quickly became a classic, filling the gap of resources needed for the education of spine surgeons. Prior to this publication, not a single book existed to address all aspects of spine surgery. Within this rapidly expanding field, the need for a standard and reliable resource became even greater. This book thus covers a spectrum of topics from the simple to the most complex, dealing with all regions of the spine from occiput to pelvis, offering diagnoses for all ages from very young children to adults, and sharing all current and up-to-date surgical approaches and techniques.

Dr. Bridwell and his respected associate editors and authors have taken every measure to produce an outstanding work addressing all basic principles and techniques of modern spine surgery. The chapters are detailed yet simultaneously to the point. They are also well illustrated and supplemented by useful references for those seeking additional information.

The third edition of The Textbook of Spinal Surgery represents significant revisions to accommodate fresh and relevant information on new outcomes, technology, and clinical research. The material covers knowledge needed for a readership comprising medical students, allied health professionals, residents and fellows to pediatric orthopaedic surgeons and spine care specialists.

The editors and authors of this publication stand at the forefront of the field. They are to be congratulated for consolidating the topic of spine surgery into one readily accessible textbook, a reference source that should appear in all libraries and on the shelves of those who provide care for patients with spinal disorders.

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In this, the third edition of *The Textbook of Spinal Surgery*, we attempt to cover all important etiologies (deformity, degenerative, traumatic and neoplastic) of pediatric and adult spinal surgery, as well as all pathologies from the skull to the sacrum. It has now been 13 years since we published the second edition. In the first edition we had 45 chapters and 60 contributors. In the second edition we had 130 chapters and 182 contributors. In this edition we have 156 chapters and 60 contributors.

As in the first two editions, we have a blend of orthopaedic and neurosurgical colleagues from all over the world contributing chapters.

With this edition, we have more heavily peer-reviewed the chapters. Each chapter was reviewed by an associate and a senior editor before publication. Most chapters were returned to the author for revision before submitting to the publisher. Therein, we believe these chapters will impress you with their quality and excellence.

Rather than bombard the reader with a 200-list bibliography, we decided to condense the reference list to a more manageable size. Therein, with each chapter we attempted to reference a small number of classic articles and otherwise the most current and pertinent ones.

Since the second edition, spinal surgery has grown tremendously. More surgeons are specializing in spinal surgery and training with fellowships than was the case when the second edition was published. Neurosurgeons are also far more contributory to the field than was the case many years ago. We feel this will be reflected in the current edition.

We are also in the process of producing several techniques videos which we feel will be helpful to the readers. The topics include adult thoracic vertebral column resection for scoliosis deformity, posterior vertebral column resection, cervical corpectomy and reconstruction, disc arthroplasty in the cervical spine, and extracavitary metastatic tumor resection and reconstruction.

As with the past editions, this textbook will be of great value to medical students, select physical therapists and physiatrists who are particularly interested in the study of spinal pathology and surgical treatment, orthopaedic and neurosurgery residents and fellows and practicing orthopaedic surgeons and neurosurgeons.

Keith H. Bridwell, MD
Ronald L. DeWald, MD
As stated in the preface, our associate editors have done a tremendous amount of work, peer-reviewing all chapters before they were submitted to the publisher. I would like to particularly thank those associate editors, Peter D. Angevine, Jacob M. Buchowski, Charles C. Edwards II, Christopher L. Hamill, Timothy R. Kuklo, Ronald A. Lehman Jr., Lawrence G. Lenke, Scott J. Luhmann, John M. Rhee, and K. Daniel Riew; their wives, Anne Angevine, Katherine Buchowski, Ann Edwards, Vikki Hamill, Linda Kuklo, Marina Lehman, Beth Lenke, Jan Luhmann, Marcia Ko, and Mary Riew; and their families for allowing them to devote extra time to advancing the knowledge of spinal surgery for all students of the field.

We would very much like to thank Terri Iffrig. She was the managing editor for the second edition for which her job was twice as big as it was for the first edition and for this edition it was twice as big again. Without her hard work and organization, the textbook would never have come to fruition.

Also, we would like to thank the Lippincott Williams & Wilkins staff, including Robert Hurley, David Murphy, Elise Paxson, Eileen Wolfberg, and Sarah Granlund, for working so hard with us on this project.

As with the other two editions, Dr. Bridwell thanks and acknowledges Dr. Ronald L. DeWald for his guidance and teachings over the years. Most of the associate editors and a very high percentage of the contributing authors were either trained by Dr. DeWald or by the people he trained. We thank him for his guidance and inspiration.

Keith H. Bridwell, MD
SECTION I: General Considerations

SECTION EDITOR: JOHN M. RHEE

1. The Evolution of Spine Surgery since the Second Edition of The Textbook of Spinal Surgery .................................................. 1
   RONALD L. DEWALD

2. Spinal Cord and Nerve Root Monitoring ........................................ 6
   ANNE M. PADBERG, BARRY L. RAYNOR, EARL D. THUET, AND SHELLY M. BOLON

3. Bone Grafting and Spine Fusion .................................................. 41
   JOHN LOUIS-UGBO AND SCOTT D. BODEN

4. Medical Complications in the Adult Spinal Patient .......................... 49
   ALEXIS B.C. DANG AND SERENA S. HU

5. Trunk Range of Motion and Gait Considerations in Patients with Spinal Deformity .................................................. 57
   JACK R. ENGSBERG, LAWRENCE G. LENKE, AND KEITH H. BRIDWELL

SECTION II: Biomechanics

SECTION EDITOR: TIMOTHY R. KUKLO

6. General Considerations of Biomechanical Testing .......................... 65
   ANTON E. DMITRIEV

7. Basic Pedicle Screw and Construct Biomechanics ........................... 74

8. Biomechanics of Three-Dimensional Scoliosis Correction .................. 79
   ANDREW G. S. KING AND MANISH P. LAMBAT

9. Treatment Considerations and Biomechanics of the Lumbosacral Spine .................................................. 86
   GEOFFREY CRONEN AND TIMOTHY R. KUKLO

10. Normal Spinal Anatomy: Normal Sagittal Plane Alignment .............. 93
    MARK BERNHARDT
## SECTION III: Anatomic Approaches

### 11. “Microscopic” Approach to the Posterior Lumbar Spine for Decompression

JASON P. YOUNG AND PAUL H. YOUNG

### 12. Minimal Access Techniques Using Tubular Retractors for Disc Herniations and Stenosis

NEEL ANAND AND ELI M. BARON

### 13. Anterior Cervical Approaches

RONALD A. LEHMAN JR AND K. DANIEL K. RIEW

### 14. Jaw-Splitting Approaches to the Upper Cervical Spine

DANIEL M. SCIUBBA, GREGORY S. MCLoughlin, ZIYA L. GOKASLAN, AND JEAN-PAUL WOLINSKY

### 15. The Modified Anterior Approach to the Cervicothoracic Junction

KAMRAN MAJID AND HARRY N. HERKOWITZ

### 16. Transsternal Approaches to the Spine

DANIEL M. SCIUBBA, CLARKE NELSON, JEAN-PAUL WOLINSKY, AND ZIYA L. GOKASLAN

### 17. Anterior Exposure of the Thoracic and Lumbar Spine Down to L4

MELVIN D. HELGESON AND RONALD A. LEHMAN JR

### 18. Anterior Approaches to the Distal Lumbar Spine and Sacrum

JOHN E. TIS AND RONALD A. LEHMAN JR

### 19. Direct Lateral Approach to the Lumbar Spine

NEEL ANAND AND ELI M. BARON

## SECTION IV: The Cervical Degenerative Spine

### 20. Cervical State of the Art

JOHN M. RHEE

### 21. Evaluation of Axial Neck Pain. Who is a Surgical Candidate and Who Isn’t: How to Manage the Nonoperative Treatment, How to Work Up the Pathology

KEITH RINKUS AND JOHN M. RHEE

### 22. Cervical Radiculopathy: Clinical Evaluation and Nonoperative Treatment

PETER S. ROSE, JOHN M. RHEE, AND K. DANIEL RIEW

### 23. Cervical Spondylosis and Radiculopathy

ANDELLE L. TENG, COREY WALLACH, AND JEFFREY C. WANG

### 24. Cervical Myelopathy

JOHN M. RHEE, SUSHIL K. BASRA, AND K. DANIEL RIEW
25. Occipitocervical and Atlantoaxial Methods of Fusion: C1-2 Fixation, Harms Screw, Magerl Screw, Wiring ................................................................. 225
   RAHEEL AHMED, VINCENT C. TRAYNELIS, AND ALEXANDER R. VACCARO

26. Anterior Decompression, Instrumentation, Fusion Techniques: Corpectomy, Strut Grafting. ................................................................. 236
   AHMAD NASSR, RAVI K. PONNAPPAN, AND JAMES D. KANG

27. Anterior Decompression, Instrumentation, Fusion Techniques: Discectomy, Foraminotomy, Disc Space Carpentry ........................................ 253
   RAVI K. PONNAPPAN, AHMAD NASSR, AND JAMES D. KANG

28. Anterior Cervical Plating ................................................................. 268
   ANDREW W. MACK, RONALD A. LEHMAN III, AND TIMOTHY R. KUKLO

29. Indications and Techniques for Transoral and Foramen Magnum Decompression ................................................................. 276
   ARNOLD H. MENEZES

30. Subaxial Posterior Decompression and Fusion Techniques ................................................................. 293
   DOUGLAS D. NOWAK, KORNELIS A. POELSTRA, AND STEVEN C. LUDWIG

31. Subaxial Posterior Foraminotomy ................................................................. 301
   DOUGLAS D. NOWAK, RA’KERRY K. RAHMAN, KORNELIS A. POELSTRA,
   AND STEVEN C. LUDWIG

32. Subaxial Posterior Laminoplasty and Laminectomy ................................................................. 307
   DOUGLAS D. NOWAK, KORNELIS A. POELSTRA, AND STEVEN C. LUDWIG

33. Subaxial Posterior Lateral Mass Fixation ................................................................. 313
   MELVIN D. HELGESON AND RONALD A. LEHMAN JR.

34. Subaxial Cervical Pedicle Screw Fixation ................................................................. 321
   KUNIYOSHI ABUMI, MANABU ITO, AND HIDEKI SUDO

35. Revision Cervical Spine Surgery ................................................................. 335
   BRIAN A. O’SHAUGHNESSY, CHARLES H. CRAWFORD III, RONALD L. LEHMAN,
   AND TIMOTHY R. KUKLO

36. Cervical Disc Arthroplasty ................................................................. 344
   WELLINGTON K. HSU AND PAUL A. ANDERSON

SECTION V: The Thoracic and Lumbar Degenerative Spine

SECTION EDITOR: TIMOTHY R. KUKLOW

37. Thoracic and Lumbar Degenerative Disorders: State of the Art ......................... 353
   JACOB M. BUCHOWSKI

38. Evaluation of Thoracic and Lumbar Axial Back Pain ......................................... 355
   KATHRYN KEELER AND JACOB M. BUCHOWSKI
<table>
<thead>
<tr>
<th>Chapter 39</th>
<th>Evaluation of Thoracic and Lumbar Radicular Pathology. Who Is a Surgical Candidate and Who Isn’t</th>
<th>367</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>KATHRYN A. KEELER AND JACOB M. BUCHOWSKI</td>
<td></td>
</tr>
<tr>
<td>Chapter 40</td>
<td>Use of Discography to Evaluate Lumbar Back Pain with an Eye Toward Surgical Treatment</td>
<td>376</td>
</tr>
<tr>
<td></td>
<td>EUGENE J. CARRAGEE AND ANGUS S. DON</td>
<td></td>
</tr>
<tr>
<td>Chapter 41</td>
<td>Surgical Treatment of Lumbar Disc Herniation</td>
<td>387</td>
</tr>
<tr>
<td></td>
<td>DAVID LEE SPENCER</td>
<td></td>
</tr>
<tr>
<td>Chapter 42</td>
<td>Surgical Treatment of Lumbar Spinal Stenosis</td>
<td>394</td>
</tr>
<tr>
<td></td>
<td>GBOLAHAN O. OKUBADEJO AND JACOB M. BUCHOWSKI</td>
<td></td>
</tr>
<tr>
<td>Chapter 43</td>
<td>Revision Laminectomy: Indications and Techniques</td>
<td>402</td>
</tr>
<tr>
<td></td>
<td>PETER D. ANGEVINE</td>
<td></td>
</tr>
<tr>
<td>Chapter 44</td>
<td>Strategies and Techniques for Dural Repair</td>
<td>411</td>
</tr>
<tr>
<td></td>
<td>CHRIS J. NEAL, TYLER KOSKI, AND STEPHEN L. ONDRA</td>
<td></td>
</tr>
<tr>
<td>Chapter 45</td>
<td>When to Consider ALIF, TLIF, PLIF, PSF, or Motion-Preserving Techniques</td>
<td>418</td>
</tr>
<tr>
<td></td>
<td>DAVID W. POLLY AND EDWARD RAINIER G. SANTOS</td>
<td></td>
</tr>
<tr>
<td>Chapter 46</td>
<td>Motion-Preservation Techniques (Other Than Disc Arthroplasty)</td>
<td>428</td>
</tr>
<tr>
<td></td>
<td>JOHN G. DEVINE</td>
<td></td>
</tr>
<tr>
<td>Chapter 47</td>
<td>Transforaminal Lumbar Interbody Fusion/Posterior Lumbar</td>
<td>436</td>
</tr>
<tr>
<td></td>
<td>Interbody Fusion</td>
<td></td>
</tr>
<tr>
<td></td>
<td>CHRISTOPHER R. GOOD AND TIMOTHY R. KUKLO</td>
<td></td>
</tr>
<tr>
<td>Chapter 48</td>
<td>Anterior Lumbar Interbody Fusion Techniques</td>
<td>445</td>
</tr>
<tr>
<td></td>
<td>MICHAEL K. ROSNER AND VICTORIA A. CAMPBELL</td>
<td></td>
</tr>
<tr>
<td>Chapter 49</td>
<td>Minimally Invasive Posterior Surgery for the Lumbar Spine</td>
<td>452</td>
</tr>
<tr>
<td></td>
<td>JAMES D. SCHWENDER AND BRIAN C. HSU</td>
<td></td>
</tr>
<tr>
<td>Chapter 50.1</td>
<td>Total Disc Replacement: Concepts/Design Strategy/Indications/Contraindications/Complications</td>
<td>463</td>
</tr>
<tr>
<td></td>
<td>JAMES J. YUE, BRANDON LAWRENCE, AND FRED MO</td>
<td></td>
</tr>
<tr>
<td>Chapter 50.2</td>
<td>Total Disc Replacement—Maverick</td>
<td>471</td>
</tr>
<tr>
<td></td>
<td>MATTHEW F. GORNET</td>
<td></td>
</tr>
<tr>
<td>Chapter 50.3</td>
<td>Lumbar Total Disc Replacement: CHARITE Artificial Disc.</td>
<td>483</td>
</tr>
<tr>
<td></td>
<td>OREN N. GOTTFRIED AND DARREL S. BRODKE</td>
<td></td>
</tr>
<tr>
<td>Chapter 50.4</td>
<td>Total Disc Replacement: ProDisc</td>
<td>493</td>
</tr>
<tr>
<td></td>
<td>UFUK TALU, RUDOLF BERTAGNOLI, HARTMANN HABBCHT, GANESH SWAMY, AND SERENA S. HU</td>
<td></td>
</tr>
<tr>
<td>Chapter 51</td>
<td>Revision Lumbar Spine Surgery</td>
<td>503</td>
</tr>
<tr>
<td></td>
<td>JOSHUA D. AUERBACH AND TIMOTHY R. KUKLO</td>
<td></td>
</tr>
<tr>
<td>Chapter 52</td>
<td>Complications of Lumbosacral Spine Surgery</td>
<td>513</td>
</tr>
<tr>
<td></td>
<td>JOHN R. DIMAR II</td>
<td></td>
</tr>
<tr>
<td>Section</td>
<td>Title</td>
<td>Authors</td>
</tr>
<tr>
<td>-----------</td>
<td>----------------------------------------------------------------------</td>
<td>-------------------------------------------------------------------------</td>
</tr>
<tr>
<td>53.</td>
<td><strong>The Future: Disc Regeneration and Other Technologies</strong></td>
<td>Daniel K. Park, Michael B. Ellman, Kern Singh, and Howard S. An</td>
</tr>
<tr>
<td>54.</td>
<td><strong>Posterior Dynamic Stabilization</strong></td>
<td>Zachary A. Smith and Larry T. Khoo</td>
</tr>
<tr>
<td>55.</td>
<td><strong>Thoracic Discectomy</strong></td>
<td>David J. Moller and John C. Liu</td>
</tr>
<tr>
<td>56.</td>
<td><strong>Thoracic Stenosis</strong></td>
<td>Tyler Koski and Fadi Nasr</td>
</tr>
<tr>
<td><strong>SECTION VI: Spondylolisthesis</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>57.</td>
<td><strong>Spondylolisthesis: Introduction</strong></td>
<td>Charles Edwards II and Mark Weidenbaum</td>
</tr>
<tr>
<td>58.</td>
<td><strong>Wiltse and Marchetti/Bartolozzi Classifications of Spondylolisthesis—Guidelines for Treatment</strong></td>
<td>Ra’Kerry K. Rahman, Joseph Perra, and Mark Weidenbaum</td>
</tr>
<tr>
<td>59.</td>
<td><strong>Sacro-Pelvic Morphology, Spino-Pelvic Alignment, and the Spinal Deformity Study Group Classification</strong></td>
<td>Hubert Labelle and Jean-Marc Mac-Thiong</td>
</tr>
<tr>
<td>60.</td>
<td><strong>The Natural History of Spondylolisthesis</strong></td>
<td>Kim Hammerberg and Mustafa Khan</td>
</tr>
<tr>
<td>61.</td>
<td><strong>Pars Repair</strong></td>
<td>Purnendu Gupta and Munish C. Gupta</td>
</tr>
<tr>
<td>62.1</td>
<td><strong>Low-Grade Spondylolisthesis in Children and Adolescents</strong></td>
<td>M. Timothy Hresko</td>
</tr>
<tr>
<td>62.2</td>
<td><strong>Low-Grade Spondylolisthesis in Adults: Surgical Management</strong></td>
<td>Steven Mardjetko</td>
</tr>
<tr>
<td>63.</td>
<td><strong>Adult Degenerative Spondylolisthesis Without Lysis</strong></td>
<td>Steven S. Agabegi, David M. Montgomery, and Harry N. Herkowitz</td>
</tr>
<tr>
<td>64.</td>
<td><strong>High-Grade Spondylolisthesis: Fusion In Situ</strong></td>
<td>Mauricio Campos and Stuart Weinstein</td>
</tr>
<tr>
<td>65.</td>
<td><strong>High-Grade Spondylolisthesis: Partial Reduction</strong></td>
<td>Pierre Roussouly and Richard B. Meyrat</td>
</tr>
<tr>
<td>66.</td>
<td><strong>High-Grade Spondylolisthesis: Posterior Decompression and Spanning/Dowel Fibula</strong></td>
<td>Rick C. Sasso and James E. Lashley</td>
</tr>
<tr>
<td>67.</td>
<td><strong>High Dysplastic Spondylolisthesis: Anatomic Reduction. The Harms/Shufflebarger Technique</strong></td>
<td>Harry L. Shufflebarger</td>
</tr>
</tbody>
</table>
68. Reduction of High-Grade Spondylolisthesis: The Edwards Technique .......................... 668
   CHARLES C. EDWARDS AND CHARLES C. EDWARDS II

69. The L5 Vertebrectomy Approach for the Treatment of Spondyloptosis with
    Reduction of L4 onto S1 ................................................. 686
   JULIAN A. ROMAGNOLI, JWALANT S. MEHTA, AND ROBERT W. GAINES

70. Complications of Spondylolysis/Spondylolisthesis Surgery ................................. 701
    JOHN P. LUBICKY AND AMER ZENI

SECTION VII: Idiopathic Scoliosis

SECTION EDITOR: CHARLES C. EDWARDS II

71. Introduction to Adolescent Idiopathic Scoliosis ................................................. 709
    CHARLES C. EDWARDS II AND KEITH H. BRIDWELL

72. Natural History Including Measures of Maturity .................................................. 711
    JAMES O. SANDERS

73. Clinical Assessment and Parent–Patient Expectations ......................................... 721
    ANTHONY RINELLA

74. Spinal Deformity Outcomes Measurement ........................................................... 728
    RUDOLPH CHRISTOPHER GLATTES, DOUGLAS C. BURTON, AND SUE MIN LAI

75. Radiographic Classification Scheme: Lenke Classification .................................... 738
    LAWRENCE G. LENKE

76. Fusionless Surgery and Growing Rod Techniques for Infantile and
    Juvenile Idiopathic Scoliosis ................................................................................. 754
    BEHROOZ A. AKBARNIA, GEORGE H. THOMPSON, AND GREGORY M. MUNDIS JR

77. Stapling Techniques ............................................................................................... 766
    TIMOTHY S. OSWALD, PATRICK J. CAHILL, AMER F. SAMDANI, AND RANDAL R. BETZ

78. Open and Thoracoscopic Anterior Thoracic Surgery ........................................... 778
    PETER O. NEWTON AND VIDYADHAR V. UPASANI

79. Thoracoplasty ......................................................................................................... 792
    DAVID H. CLEMENTS, AMER F. SAMDANI, AND RANDAL R. BETZ

80. Evolution of Instrumentation for Adolescent Idiopathic Scoliosis ......................... 800
    GBOLAHAN O. OKUBADEJO AND KEITH H. BRIDWELL

81. Short Segment “Bone-on-Bone” Fusion for Adolescent Idiopathic Scoliosis .......... 808
    JULIAN A. ROMAGNOLI AND ROBERT W. GAINES

82. Posterior Spinal Deformity Correction Techniques ............................................... 823
    BRIAN A. O’SHAUGHNESSY AND LAWRENCE G. LENKE

83. Anterior Lumbar and Thoracolumbar Correction and Fusion for AIS .................. 848
    DANIEL J. SUCATO, HONG ZHANG, AND CHARLES E. JOHNSTON

84. Treatment of Thoracic Scoliosis .............................................................................. 866
    KEITH H. BRIDWELL
SECTION VIII: Adult Spinal Deformity

SECTION EDITOR: CHRISTOPHER L. HAMILL

87. Adult Spinal Deformity—Introduction/State of the Art ........................................ 919
CHRISTOPHER L. HAMILL

88. Adult Spinal Deformity Classification ................................................................. 921
FRANK SCHWAB, SIGURD BERVEN, AND KEITH H. BRIDWELL

89. De Novo Scoliosis ................................................................................................. 929
ASHISH PATEL, FRANK SCHWAB, AND JEAN-PIERRE FARCY

90. Sagittal Imbalance ................................................................................................ 938
CHRISTOPHER L. HAMILL, PETER D. ANGEVINE, AND KEITH H. BRIDWELL

91. Fixed Coronal Imbalance of the Spine: Clinical Significance and
Operative Management ............................................................................................. 948
BRIAN HSU AND SIGURD BERVEN

92. Spinal Deformity in the Older Patient With Kyphosis .......................................... 962
FRANK L. ACOSTA JR, TYLER KOSKI, AND STEPHEN L. ONDRA

93. Revision Surgeries for Adult Spinal Deformity ................................................... 970
MATTHEW E. CUNNINGHAM AND OHENEBA BOACHIE-ADJEI

94. Smith-Petersen Osteotomy of the Spine ................................................................. 982
DOUGLAS C. BURTON

95. Pedicle Subtraction Procedures for Complex Spinal Deformity .......................... 987
BRIAN A. O’SHAUGHNESSY, JACOB M. BUCHOWSKI, AND KEITH H. BRIDWELL

96. Vertebral Column Resection for Complex Spinal Deformity:
Posterior Approach .................................................................................................. 999
SE-IL SUK

97. Vertebral Column Resection for Complex Spinal Deformity:
Anterior and Posterior Approach ........................................................................... 1015
SIGURD BERVEN AND DAVID S. BRADFORD

98. Minimally Invasive Deformity Surgery: Future Directions ................................. 1021
FADI NASR, TYLER KOSKI, JOHN LIU, STEPHEN ONDRA, AND RICHARD FESSLER

99. Fusion to the Sacrum and Fixation Techniques of the Sacropelvic Junction ...... 1031
ANGEL E. MACAGNO AND MICHAEL F. O’BRIEN

100. Structural Grafting for Adult Spinal Deformity .................................................. 1052
PETER D. ANGEVINE AND KEITH H. BRIDWELL
SECTION IX: Dysplastic and Congenital Deformities

SECTION EDITOR: SCOTT J. LUHMANN

101. Introduction/State of the Art in the Care of Dysplastic and Congenital Spine Deformities
SCOTT J. LUHMANN

102. Dysplastic Scoliosis: Neurofibromatosis Spinal Pathology
ALVIN H. CRAWFORD, AND KEITH R. GABRIEL

103. Spinal Deformities in Marfan Syndrome
PAUL D. SPONSELLER

104. Spinal Deformity in Skeletal Dysplasia Conditions
ERIC D. SHIRLEY AND MICHAEL C. AIN

105. The Spine in Osteogenesis Imperfecta
PAUL D. SPONSELLER AND SERGIO A. GLAIT

106. Spinal Deformity in Familial Dysautonomia
DAVID S. FELDMAN, FULYA ÜSTÜNKAN, AND DEBRA A. SALA

107. Congenital Scoliosis
MICHAEL J. MCMASTER

108. Hemivertebra Resection
MICHAEL RUF AND JÜRGEN HARMS

109. Congenital Intraspinal Anomalies: Spinal Dysraphism—Embryology, Pathology, and Treatment
JEFFREY LEONARD, M. MOHSIN SHAH, AND BRUCE KAUFMAN

110. Thoracic Insuffi ciency Syndrome
ROBERT M. CAMPBELL JR.

HARISH S. HOSALKAR, DANIELLE B. CAMERON, AND DENIS S. DRUMMOND

SECTION X: Paralytic Deformity

SECTION EDITOR: SCOTT J. LUHMANN

112. Introduction/State of the Art in the Care of the Paralytic and Neuromuscular Scoliosis
SCOTT J. LUHMANN

113. Paralytic Scoliosis and the Spastic Patient
THOMAS G. MCPARTLAND AND JOHN B. EMANS

114. Surgical Treatment of Flaccid Neuromuscular Scoliosis
GILBERT CHAN, DAVID A. SPIEGEL, AND DENIS S. DRUMMOND

115. Surgical Treatment of Myelomeningocele Deformities
RICHARD E. MCCARTHY
116. Management of Paralytic Neuromuscular Disorders with an Emphasis on Pelvic Obliquity ........................................... 1252
   DANIEL J. HEDEQUIST

117. Role of Halo Traction and Halo-Femoral Traction in Paralytic/Neuromuscular Scoliosis ......................... 1265
   SCOTT J. LUHMANN AND DAVID L. SKAGGS

SECTION XI: Kyphosis and Postlaminectomy Deformities

SECTION EDITOR: PETER D. ANGEVINE

118. Introduction and Current State of the Art ...................... 1279
   PETER ANGEVINE

119. Cervical Instability and Kyphosis (Rheumatoid, Dwarfism, Degenerative, Others) ..................................... 1281
   ERIC HARRIS, JAMES LAWRENCE, JEFFREY RIHN, JOSEPH GONDUSKY, AND ALAN HILIBRAND

120. Surgical Treatment of Scheuermann’s Kyphosis ................ 1295
   ANGEL E. MACAGNO, MICHAEL F. O’BRIEN, AND HARRY L. SHUFFLEBARGER

121. Short-Segment Anterior Fusion of Symptomatic Scheuermann’s Disease .................................................... 1312
   JWALANT S. MEHTA AND ROBERT W. GAINES

122. Postlaminectomy Deformities in the Thoracic and Lumbar Spine ................................................................. 1326
   BRANDON G. ROCQUE, SHARAD RAJPAL, AND DANIEL K. RESNICK

123. Posttraumatic Deformity ............................................. 1332
   JACOB M. BUCHOWSKI

124. Ankylosing Spondylitis/Thoracolumbar Deformities .......... 1340
   CHRISTOPHER L. HAMILL

125. Cervicothoracic Extension Osteotomy for Chin-On-Chest Deformity .......................................................... 1345
   CHRISTOPHER G. FUREY

126. The Role of Osteotomies in the Cervical Spine ................. 1355
   K. DANIEL RIEW AND ADAM L. WOLLOWICK

SECTION XII: Trauma

SECTION EDITOR: RONALD A. LEHMAN, JR.

127. Trauma State of the Art ............................................. 1377
   RONALD A. LEHMAN, JR. AND TOBIN ECKEL

128. Classification of Cervical Spine Injury ......................... 1381
   ALPESH A. PATEL, ALEXANDER R. VACCARO, AND PAUL A. ANDERSON

129. Classification of Thoracic and Lumbar Fractures ................ 1390
   RONALD A. LEHMAN, JR., JASON T. BESSEY, AND ALEXANDER R. VACCARO
130. Surgical Management of Cervical Spine Fractures .................................. 1399
    KELLEY BANAGAN AND DANIEL GELB

131. Anterior and Posterior Instrumentation Techniques Used in the
    Thoracic Spine for Treatment of Fractures ................................. 1411
    DAVID H. KIM, JEFFREY A. RIHN, AND TODD J. ALBERT

132. Surgical Treatment of Thoracolumbar and Lumbar Fractures ............. 1424
    MICHAEL D. DAUBS AND SHAY BESS

133. Anterior Decompression Techniques for Thoracic and Lumbar Fractures ... 1439
    DAVIS L. REAMES, D. KOJO HAMILTON, ANTON TOOMAS, AND
    CHRISTOPHER I. SHAFFREY

134. Minimal Access Techniques for Spine Trauma ................................ 1449
    JOSEPH RIINA, DAVID G. SCHWARTZ, JASON E. SMITH, AND KATHY J. FLINT

135. Management and Surgical Treatment of Fractures of
    the Lumbosacral Region and the Sacrum ................................. 1460
    CARLO BELLABARBA, THOMAS A. SCHILDHAUER, M.L. CHIP ROUTT, AND
    JENS R. CHAPMAN

136. Novel Approaches to Neural Repair and Regeneration
    After Spinal Cord Injury .................................................. 1474
    ELENA OKON, JESSICA HILLYER, AND BRIAN K. KWON

SECTION XIII: Tumor and Osteomyelitis

SECTION EDITOR: PETER D. ANGEVINE

137. Introduction and State of the Art ........................................... 1485
    PETER D. ANGEVINE

138. Benign Tumors of the Spine ................................................. 1487
    SUMEET GARG AND JOHN P. DORMANS

139. Primary Malignant Tumors of the Spine .................................... 1499
    GREGORY S. MCLOUGHLIN, DANIEL M. SCIUBBA, AND JEAN-PAUL WOLINSKY

140. The Surgical Treatment of Metastatic Spine Disease ....................... 1511
    ILYA LAUFER, PETER S. ROSE, AND MARK H. BILSKY

141. Intramedullary Spinal Cord Tumors .......................................... 1520
    KAZUTOSHI HIDA

142. Intradural, Extramedullary Spinal Tumors .................................. 1535
    ALFRED T. OGDEN AND PAUL C. MCCORMICK

143. Spinal Vascular Malformations ............................................. 1544
    MICHELLE J. CLARKE, WILLIAM E. KRAUSS, AND MARK A. PICHIELLMANN

144. Spinal Infection/Osteomyelitis ............................................. 1553
    SANFORD E. EMERY AND RYAN T. GOCKE
145. **Tumors of the Sacrum** ............................................................... 1560
    ALEXANDRE RASOULI, H. THOMAS TEMPLE, AND FRANK J. EISMONT

146. **Adjuvant Therapy of Spinal Tumors** ............................................. 1575
    ILYA LAUFER, YOSHIYA YAMADA, AND MARK H. BILSKY

**SECTION XIV: Complications**

SECTION EDITOR: JACOB M. BUCHOWSKI

147. **Introduction/State-of-the-Art** .................................................... 1581
    JACOB M. BUCHOWSKI

148. **Neurological Complications** ..................................................... 1584
    LUKAS P. ZEBALA AND JACOB M. BUCHOWSKI

149. **Reconstruction of Complex Spinal Wounds** ................................... 1591
    BRENDAN COLLINS AND RICHARD J. REDETT

150. **Vascular Complications** .......................................................... 1598
    GREGORY GEBAUER AND A. JAY KHANNA

151. **Postoperative Early and Late Wound/Implant Infections** ................. 1608
    SUMEET GARG AND JACOB M. BUCHOWSKI

152. **Cerebrospinal Fluid Fistula and Pseudomeningocele** ....................... 1617
    KENE UGOKWE AND EDWARD C. BENZEL

153. **Pseudarthrosis in Spinal Deformity Surgery** ................................ 1622
    YONGJUNG J. KIM AND PETER D. ANGEVINE

154. **Legal Implications and Strategies** .............................................. 1633
    JANICE F. MULLIGAN, HEATHER HANSEN, JESSICA UITTO,
    PAUL CRAIG, AND STEVEN R. GARFIN

155. **Unresolved Postoperative Spine Pain** ....................................... 1649
    WILLIAM C. LAUERMAN AND STEVEN C. SCHERPING

156. **Medical Complications Associated with Spinal Surgery** .................. 1665
    ELI M. BARON AND TODD J. ALBERT

Index 1675