

Contents

1. Spinal Cord Injury: Stem Cells and Pharmacologic Treatment	1
<i>Abhijeet B Kadam, Sarah C Nyirjesy, Paul W Millhouse, Christopher Y Kong, Alexander R Vaccaro, Troy I Mounts</i>	
2. Axial Back Pain: Diagnosis	25
<i>John D Laughlin, Gaetano J Scuderi</i>	
3. Axial Back Pain: Surgical Treatment	37
<i>William A Muñoz, Saad B Chaudhary, Michael J Vives</i>	
4. Molecular Basis of Disc Degeneration and Regeneration	55
<i>Zachary R Schoepflin, Hyowon Choi, Zariel I Johnson, Irving M Shapiro, Makarand V Risbud</i>	
5. Disc Arthroplasty: Cervical and Lumbar	69
<i>Kasra Ahmadinia</i>	
6. Surgical Site Infection (SSI) in Spine Surgery	83
<i>Etienne Schonbach, Caleb Behrend</i>	
7. Spine Imaging: Diagnostic and Intraoperative Techniques	99
<i>Joseph H Liao, Amish Doshi, Amish Patel</i>	
8. Cervical Spondylotic Myelopathy: Treatment Options	117
<i>Daniel Choi, Michael J Vives, Saad B Chaudhary</i>	
9. Anticoagulation, Venous Thromboembolism, and Prophylaxis in Spine Surgery	133
<i>Andrew G Park, John D Koerner, Matthew McDonnell, Kristen Radcliff</i>	
10. Adolescent Idiopathic Scoliosis: Techniques	141
<i>Heidi Martin Hullinger, Rex AW Marco</i>	
11. Perioperative Analgesia for Complex Spinal Surgery	157
<i>Marc A Dany, Marc W Kauffman, Eugene R Viscusi</i>	
12. What Role Should Spine Surgeons Play in Osteoporosis Treatment?	183
<i>Joseph M Lane, Arianna L Gianakos</i>	
13. Recent Advances in Measuring Outcomes in Spine Surgery	197
<i>John D Koerner, Jeffrey A Rihn</i>	
14. Sports-Related Injuries	209
<i>Steven McAnany, Andrew C Hecht</i>	

15. Intraoperative Monitoring During Spine Surgery	223
<i>Eugene M Martin, Adam T Doan</i>	
16. Minimally Invasive Spine Surgery—New Techniques and Complications	241
<i>Sreeharsha V Nandyala, Alejandro Marquez-Lara, Benjamin C Mayo, Dustin H Massel, Kern Singh</i>	
17. Adult Spinal Deformity	255
<i>Colin MacElroy Vroome, Babak Khamsi, Michael Daubs</i>	
<i>Index</i>	<i>271</i>