

Contents

	FOREWORD	XIII
	PREFACE	XIV
	CONTRIBUTORS	XV
SECTION I.	POSTERIOR CERVICAL APPROACH: DECOMPRESSION	
1.	FORAMEN MAGNUM DECOMPRESSION <i>Gregory J. Przybylski</i>	2
2.	CERVICAL LAMINECTOMY C1-C7 <i>Eeric Truumees and Harry N. Herkowitz</i>	4
3.	FORAMINOTOMY — CERVICAL NERVE EXPOSURE <i>Sean Grady</i>	6
4.	EXPOSURE OF THE VERTEBRAL ARTERY <i>Daniel K. Resnick</i>	8
5.	SURGICAL REMOVAL OF INTRADURAL SPINAL CORD TUMORS <i>Seth Zeidman</i>	10
6.	OPEN REDUCTION OF UNILATERAL AND BILATERAL FACET DISLOCATIONS <i>Mark J.R. Moulton, Alexander R. Vaccaro, and Jerome M. Cotler</i>	12
7.	LAMINOPLASTY <i>Kiyoshi Hirabayashi</i>	14
SECTION II.	POSTERIOR CERVICAL APPROACH: ARTHRODESIS AND INSTRUMENTATION	
8.	OCCIPITAL SCREW PLACEMENT <i>Rick C. Sasso</i>	18
9.	OCCIPITAL WIRE PLACEMENT <i>Richard G. Fessler</i>	20

10.	GRAFT PLACEMENT ACROSS THE POSTERIOR OCCIPITOCERVICAL JUNCTION <i>Rick C. Sasso</i>	22
11.	C1-C2 SUBLAMINAR WIRE PLACEMENT <i>Steven R. Garfin</i>	24
12.	C2, C1 TRANSARTICULAR SCREW PLACEMENT <i>Christopher P. Silveri and Alexander R. Vaccaro</i>	26
13.	CERVICAL PEDICLE SCREW PLACEMENT <i>Mark J.R. Moulton and Alexander R. Vaccaro</i>	28
14.	CERVICAL LATERAL MASS SCREW PLACEMENT (C3-C7) <i>Mark J.R. Moulton and Alexander R. Vaccaro</i>	30
15.	SPINOUS PROCESS (TRIPLE WIRING) AND FACET WIRING TECHNIQUES <i>J.J. Abitbol, Thomas Dowling, and Alexander R. Vaccaro</i>	32
16.	POSTERIOR CERVICOTHORACIC OSTEOTOMY <i>John K. Webb and Dilip K. Sengupta</i>	35
SECTION III. ANTERIOR CERVICAL APPROACH: DECOMPRESSION		
17.	ANTERIOR CERVICAL DISKECTOMY AND FORAMINOTOMY <i>Todd J. Albert</i>	40
18.	POSTERIOR LONGITUDINAL LIGAMENT TAKEDOWN <i>Iain H. Kalfas</i>	42
19.	ANTERIOR CERVICAL CORPECTOMY <i>Harvinder S. Sandhu</i>	44
20.	ANTERIOR TECHNIQUES FOR CERVICAL OPLL RESECTION <i>Michael G. Fehlings</i>	46
21.	TRANSORAL ODONTOID RESECTION <i>Joseph M. Morreale, Michael J. Vives, William Pfaff, Bruce Northrup, and Alexander R. Vaccaro</i>	48
22.	DURAL PATCH TECHNIQUES <i>Daniel K. Resnick</i>	50
23.	APPLICATION OF HALO ORTHOSIS <i>Mark J.R. Moulton, Alexander R. Vaccaro, Jerome M. Cotler, and David Andreychik</i>	52
24.	CLOSED CERVICAL TRACTION REDUCTION <i>David Andreychik</i>	54

SECTION IV.	ANTERIOR CERVICAL APPROACH: ARTHRODESIS AND INSTRUMENTATION	
25.	ANTERIOR OCCIPITOCERVICAL PLATING <i>Deepak Awasthi and Mitchel B. Harris</i>	58
26.	ODONTOID SCREW PLACEMENT <i>Rick C. Sasso</i>	60
27.	ANTERIOR CERVICAL GRAFT PLACEMENT TECHNIQUES <i>Marcel F.S. Dvorak, Mark J.R. Moulton, and Alexander R. Vaccaro</i>	62
28.	ANTERIOR CERVICAL PLATING <i>Paul A. Anderson</i>	64
29.	C1-C2 ARTHRODESIS — LATERAL APPROACH OF BARBOUR AND WHITESIDES <i>Richard S. Nachwalter and Alexander R. Vaccaro</i>	66
30.	C1, C2 FUSION TECHNIQUE — ANTERIOR APPROACH <i>Richard S. Nachwalter and Alexander R. Vaccaro</i>	68
SECTION V.	POSTERIOR THORACIC APPROACH: DECOMPRESSION	
31.	THORACIC LAMINECTOMY <i>Douglas M. Ehrler</i>	72
32.	THORACIC DISKECTOMY — COSTOTRANSVERSECTOMY <i>Douglas M. Ehrler</i>	74
33.	TRANSPEDICULAR DECOMPRESSION <i>Alan S. Hilibrand</i>	76
34.	LATERAL EXTRACAVITARY APPROACH <i>Gregory J. Przybylski</i>	78
35.	MULTIPLE CHEVRON OSTEOTOMIES <i>Kirkham B. Wood</i>	80
SECTION VI.	POSTERIOR THORACIC APPROACH: ARTHRODESIS AND INSTRUMENTATION	
36.	SUPRALAMINAR, INFRALAMINAR TRANSVERSE PROCESS HOOK PLACEMENT <i>Steven C. Ludwig</i>	84
37.	SUBLAMINAR WIRE PLACEMENT <i>Joseph M. Morreale, Michael Vives, William Pfaff, and Alexander R. Vaccaro</i>	86
38.	PLACEMENT OF BONE GRAFT FROM THE POSTERIOR APPROACH <i>Gregory J. Przybylski</i>	88

39.	THORACIC PEDICLE SCREW PLACEMENT <i>Charles G. Fisher</i>	90
40.	VERTEBROPLASTY <i>Hallett H. Mathews</i>	92
41.	KYPHOPLASTY FOR THE TREATMENT OF OSTEOPENIC VERTEBRAL COMPRESSION FRACTURES <i>Frank M. Phillips</i>	94
42.	CONCAVE RIB OSTEOTOMY FOR RIGID CORONAL SPINAL DEFORMITIES <i>Bernard A. Rawlins</i>	96
43.	THORACOPLASTY <i>Isador H. Lieberman</i>	98
44.	SCOLIOSIS ROD ROTATION <i>Lawrence G. Lenke</i>	100
45.	SCOLIOSIS — VERTEBRAL TRANSLATION <i>John K. Webb and Dilip K. Sengupta</i>	103
46.	REDUCTION MANEUVER FOR THORACIC KYPHOSIS <i>Kirkham B. Wood</i>	106
SECTION VII. ANTERIOR THORACIC APPROACH: DECOMPRESSION		
47.	OPEN THORACIC DISKECTOMY <i>Mark S. Eskenazi and John Bendo</i>	110
48.	ENDOSCOPIC THORACIC DISKECTOMY <i>Mark S. Eskenazi and John Bendo</i>	112
49.	THORACIC CORPECTOMY <i>Todd J. Albert and Scott D. Daffner</i>	114
50.	ANTERIOR RIB OSTEOTOMY/THORACOPLASTY <i>Gregory A. Mencia</i>	116
SECTION VIII. ANTERIOR THORACIC APPROACH: ARTHRODESIS AND INSTRUMENTATION		
51.	ANTERIOR THORACIC ARTHRODESIS — BONE GRAFTING <i>Paul E. Savas</i>	120
52.	TITANIUM MESH CAGES <i>Paul E. Savas</i>	122
53.	POLYMETHYLMETHACRYLATE <i>Paul E. Savas</i>	124

54.	ANTERIOR THORACIC PLATING TECHNIQUES <i>Thomas M. Reilly</i>	126
55.	ANTERIOR ROD PLACEMENT <i>Marcel F.S. Dvorak and Christopher W. Reilly</i>	128
56.	ROD ROTATION TECHNIQUE <i>Christopher W. Reilly and Marcel F.S. Dvorak</i>	130
SECTION IX. POSTERIOR LUMBAR APPROACH: DECOMPRESSION		
57.	ENDOSCOPIC DISKECTOMY <i>Hallett H. Mathews</i>	134
58.	LUMBAR MICROSCOPIC DISKECTOMY <i>Michael J. Bolesta</i>	136
59.	FAR LATERAL DISC HERNIATION — WILTSE APPROACH <i>John B. Sledge</i>	138
60.	LAMINECTOMY AND FACETECTOMY <i>Jeffrey S. Fischgrund</i>	140
61.	INTRADISCAL ELECTROTHERMAL THERAPY <i>Joel S. Saal</i>	142
62.	DURAL REPAIR TECHNIQUES (FASCIAL PATCHING) <i>Jeffrey D. Coe and Alexander R. Vaccaro</i>	144
63.	PEDICLE SUBTRACTION OSTEOTOMY <i>Keith H. Bridwell</i>	146
64.	SMITH-PETERSEN OSTEOTOMY <i>Keith H. Bridwell</i>	148
SECTION X. POSTERIOR LUMBAR APPROACH: ARTHRODESIS AND INSTRUMENTATION		
65.	TRANSFORAMINAL LUMBAR INTERBODY FUSION <i>Todd J. Albert and Scott D. Daffner</i>	152
66.	POSTERIOR LUMBAR INTERBODY FUSION <i>Steven C. Ludwig</i>	154
67.	LUMBAR PEDICLE SCREW PLACEMENT <i>Eeric Truumees</i>	156
68.	FACET SCREW PLACEMENT <i>Eeric Truumees</i>	158

69.	SACRAL PEDICLE SCREW (S1 PROMONTORY) PLACEMENT <i>Eeric Truumees</i>	160
70.	INTRAILIAC POST/SCREW ANCHOR PLACEMENT <i>Marc Asher</i>	163
71.	GALVESTON ROD CONTOURING/PLACEMENT <i>Lee S. Segal</i>	166
72.	TRANSILIAC (SACRAL) ROD PLACEMENT <i>Daniel E. Gelb</i>	169
73.	TRANSILIAC PLATE FIXATION <i>Daniel E. Gelb</i>	171
74.	ILIOSACRAL SCREWS <i>Daniel E. Gelb</i>	173
75.	JACKSON INTRASACRAL SCREW PLACEMENT <i>Roger P. Jackson</i>	175
76.	SACRAL ALA AND S2 PEDICLE SCREW PLACEMENT <i>Jed S. Vanichkachorn, Eeric Truumees, and Alexander R. Vaccaro</i>	178
77.	POSTERIOR FIBULAR STRUT GRAFT FOR SPONDYLOLISTHESIS <i>Anh X. Le and Rick B. Delamarter</i>	181
78.	SPONDYLOLYSIS REPAIR (PARS INTERARTICULARIS REPAIR) <i>Glenn R. Rechtine II</i>	183
SECTION XI. ANTERIOR LUMBAR APPROACH: DECOMPRESSION		
79.	ANTERIOR LUMBAR INTERBODY SURGERY — OPEN APPROACH <i>John D. Tydings and Alexander R. Vaccaro</i>	186
80.	LUMBAR INTERBODY PROCEDURES — LAPAROSCOPIC APPROACH <i>John D. Tydings and Alexander R. Vaccaro</i>	189
SECTION XII. ANTERIOR LUMBAR APPROACH: ARTHRODESIS AND INSTRUMENTATION		
81.	ANTERIOR LUMBAR INTERBODY FUSION (ALIF) GRAFTING — FEMORAL RING <i>Paul Fuchs and Michael E. Janssen</i>	194
82.	ANTERIOR LUMBAR INTERBODY FUSION (ALIF) GRAFTING CYLINDER CAGES — ANTERIOR APPROACH <i>Jason D. Cohen and Paul C. McAfee</i>	197

83.	ANTERIOR LUMBAR INTERBODY FUSION (ALIF) GRAFTING CYLINDER CAGES — LATERAL APPROACH <i>Jason D. Cohen and Paul C. McAfee</i>	199
84.	ANTERIOR FIBULAR STRUT GRAFTING (SPONDYLOLISTHESIS) <i>Jason D. Cohen and Paul C. McAfee</i>	202
SECTION XIII. BONE GRAFTING AND RECONSTRUCTION		
85.	ANTERIOR ILIAC CREST HARVEST <i>James J. Yue and Kenneth J. Wilkens</i>	206
86.	POSTERIOR ILIAC CREST HARVEST <i>James J. Yue and Kenneth J. Wilkens</i>	207
	INDEX	208