



ACGME International

**Advanced Specialty Program Requirements for
Graduate Medical Education in
Orthopaedic Surgery of the Spine
(Orthopaedic Surgery)**

Initial Approval:

1 **ACGME International Specialty Program Requirements for**
2 **Graduate Medical Education in**
3 **Orthopaedic Surgery of the Spine**
4 **(Orthopaedic Surgery)**
5

6 **Int. Introduction**
7

8 *Background and Intent: Programs must achieve and maintain Foundational Accreditation*
9 *according to the ACGME-I Foundational Requirements prior to receiving Advanced Specialty*
10 *Accreditation. The Advanced Specialty Requirements noted below complement the ACGME-I*
11 *Foundational Requirements. For each section, the Advanced Specialty Requirements should*
12 *be considered together with the Foundational Requirements.*
13

14 **Int. I. Definition and Scope of the Specialty**
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16 Orthopaedic surgery of the spine is the component of orthopaedic surgery focused
17 on the study and prevention of spinal column diseases, disorders, and injuries in the
18 adult patient. This includes assessment and treatment with medical management,
19 rehabilitative therapies, and surgical methods.
20

21 **Int. II. Duration of Education**
22

23 Int. II.A. The educational program in orthopaedic surgery of the spine must be 12 or 24
24 months in length.
25

26 **I. Institution**
27

28 **I.A. Sponsoring Institution**
29

30 See International Foundational Requirements, Section I.A.
31

32 **I.B. Participating Sites**
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34 I.B.1. When orthopaedic residents and fellows are being educated at the same
35 participating site, the residency director and fellowship director must jointly
36 prepare and utilize a written agreement specifying the educational relationship
37 between the residency and fellowship programs, including:
38

39 I.B.1.a) the roles of the program directors in determining the educational
40 program of residents and fellows;

41
42 I.B.1.b) the roles of the residents and fellows in patient care; and,
43

44 I.B.1.c) how clinical and educational resources will be shared fairly.
45

46 I.B.2. Both program directors should together closely monitor the relationship
47 between resident and fellow education.
48

49 **II. Program Personnel and Resources**
50

51 **II.A. Program Director**
52

- 53 II.A.1. The program director must demonstrate the following qualifications:
54
55 II.A.1.a) documented completion of an orthopaedic surgery of the spine
56 fellowship or its equivalent;
57
58 II.A.1.b) at least three years of clinical practice in orthopaedic spine surgery;
59 and,
60
61 II.A.1.c) evidence of periodic updates of knowledge and skills to discharge the
62 roles and responsibilities for teaching, supervision, and formal
63 evaluation of fellows.
64
- 65 **II.B. Faculty**
66
- 67 II.B.1. There must be one physician faculty member who is a neurological surgeon.
68
69 II.B.2. There must be at least two core physician faculty members who are orthopaedic
70 surgeons with expertise in spine surgery, including the program director.
71
- 72 **II.C. Other Program Personnel**
73
74 See International Foundational Requirements, Section II.C.
75
- 76 **II.D. Resources**
77
- 78 II.D.1. There must be inpatient, outpatient, imaging, laboratory, rehabilitation, and
79 research facilities.
80
81 II.D.2. There must be operating rooms fully equipped for surgery of the spine.
82
83 II.D.3. There must be close cooperation with all clinical services available for the
84 education of fellows, including:
85
- 86 II.D.3.a) anesthesiology;
87
88 II.D.3.b) critical care;
89
90 II.D.3.c) infectious disease;
91
92 II.D.3.d) laboratory medicine;
93
94 II.D.3.e) neurological surgery;
95
96 II.D.3.f) neurology;
97
98 II.D.3.g) oncology;
99
100 II.D.3.h) pathology;
101
102 II.D.3.i) physical medicine and rehabilitation; and,
103
104 II.D.3.j) radiology.

105		
106	II.D.4.	A sufficient number and variety of new and follow-up patients must be available
107		to ensure adequate inpatient and outpatient experience for each fellow without
108		adversely diluting the educational experience of orthopaedic surgery residents,
109		if present.
110		
111	III.	Fellow Appointment
112		
113	III.A.	Eligibility Criteria
114	III.A.1.	Prior to appointment in the program, fellows should have completed an
115		ACGME-I-accredited residency program in orthopaedic surgery, or an
116		orthopaedic surgery residency program acceptable to the Sponsoring
117		Institution's Graduate Medical Education Committee.
118	III.B.	Number of Fellows
119		
120		See International Foundational Requirements, Section III.B.
121		
122	IV.	Specialty-Specific Educational Program
123		
124	IV.A.	ACGME-I Competencies
125		
126	IV.A.1.	The program must integrate the following ACGME-I Competencies into the
127		curriculum.
128		
129	IV.A.1.a)	Professionalism
130		
131	IV.A.1.a).(1)	Fellows must demonstrate a commitment to
132		professionalism and an adherence to ethical principles.
133		
134	IV.A.1.b)	Patient Care and Procedural Skills
135		
136	IV.A.1.b).(1)	Fellows must provide patient care that is compassionate,
137		appropriate, and effective for the treatment of health
138		problems and the promotion of health. Fellows must
139		demonstrate competence in:
140		
141	IV.A.1.b).(1).(a)	clinical assessment and development of treatment
142		plans to manage patients with traumatic, congenital,
143		developmental, infectious, neoplastic, metabolic,
144		degenerative, and inflammatory/rheumatologic
145		disorders of the spine, as well as those with spinal
146		deformity, and spinal cord injury;
147		
148	IV.A.1.b).(1).(b)	clinical assessment of the neurologic function of the spinal
149		cord and nerve roots;
150		
151	IV.A.1.b).(1).(c)	recognizing and managing complications of treatment,
152		including appropriate consultations with subspecialists;
153		
154	IV.A.1.b).(1).(d)	clinical assessment of disorders of bone quality, oncologic

155		pathology, and infectious diseases in spinal bones, discs,
156		and neurologic spaces; and,
157		
158	IV.A.1.b).(1).(e)	clinical assessment and development of treatment plans
159		for sources of pain in the regions of the spine.
160		
161	IV.A.1.b).(5)	Fellows must be able to perform all medical, diagnostic, and
162		surgical procedures considered essential for the area of practice,
163		including demonstrating competence in:
164		
165	IV.A.1.b).(5).(a)	interpreting imaging studies of the spine;
166		
167	IV.A.1.b).(5).(b)	appropriate use of diagnostic laboratory tests, to include
168		electrophysiologic monitoring;
169		
170	IV.A.1.b).(5).(c)	performing operative procedures for the management of
171		patients with orthopaedic disorders of the spine, to include:
172		
173	IV.A.1.b).(5).(c) (i)	fractures and dislocations (cervical, thoracic, and
174		lumbar);
175		
176	IV.A.1.b).(5).(c) (ii)	anterior arthrodesis (cervical, thoracic, and lumbar);
177		
178	IV.A.1.b).(5).(c).(iii)	posterior instrumentation (occiput, cervical,
179		thoracic, and lumbar);
180		
181	IV.A.1.b).(5).(c).(iv)	anterior instrumentation;
182		
183	IV.A.1.b).(5).(c).(v)	laminectomy (cervical, thoracic, and lumbar);
184		
185	IV.A.1.b).(5).(c).(vi)	application of intervertebral devices or bone graft;
186		
187	IV.A.1.b).(5).(c).(vii)	laminoplasty;
188		
189	IV.A.1.b).(5).(c).(viii)	transpedicular decompression; and,
190		
191	IV.A.1.b).(5).(c).(ix)	vertebral corpectomy.
192		
193	IV.A.1.c)	Medical Knowledge
194		
195	IV.A.1.c).(1)	Fellows must demonstrate knowledge of established and
196		evolving biomedical clinical, epidemiological, and social-
197		behavioral sciences, as well as the application of this
198		knowledge to patient care. Fellows must demonstrate
199		knowledge of:
200		
201	IV.A.1.c).(1).(a)	major spine disorders and conditions, including
202		trauma, congenital, developmental, infectious,
203		neoplastic, metabolic, degenerative, and
204		inflammatory/rheumatologic disorders of the
205		spine; trauma to the spinal cord; and other
206		spinal deformities;

207		
208	IV.A.1.c).(1).(b)	indications, risks, and limitations of the commonly performed procedures in orthopaedic surgery of the spine;
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210		
211		
212	IV.A.1.c).(1).(c)	the basic sciences and measurement techniques related to the musculoskeletal system;
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214		
215	IV.A.1.c).(1).(d)	the natural history of spinal degeneration, spinal deformity, and changes in bone density and assessment and management of spinal cord trauma;
216		and,
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219		
220	IV.A.1.c).(1).(e)	the application of research methods, including the ability to critically analyze research reports and to design and implement clinical or basic research in the field of orthopaedic surgery of the spine.
221		
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225	IV.A.1.d)	Practice-Based Learning and Improvement
226		
227	IV.A.1.d).(1)	Fellows must demonstrate the ability to investigate and evaluate their care of patients, to appraise and assimilate scientific evidence, and to continuously improve patient care based on constant self-evaluation and lifelong learning.
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231	IV.A.1.e)	Interpersonal and Communication Skills
232		
233	IV.A.1.e).(1)	Fellows must demonstrate interpersonal and communication skills that result in the effective exchange of information and collaboration with patients, patients' families, and health professionals.
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238	IV.A.1.f)	Systems-Based Practice
239		
240	IV.A.1.f).(1)	Fellows must demonstrate an awareness of and responsiveness to the larger context and system of health care, including the social determinates of health, as well as the ability to call effectively on other resources in the system to produce optimal care.
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246	IV.B.	Regularly Scheduled Educational Activities
247		
248	IV.B.1.	The didactic curriculum must include anatomy, physiology, biomechanics, microbiology, pathology, and other sciences as they relate to orthopaedic surgery of the spine.
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252	IV.B.2.	The program must regularly hold subspecialty conferences with active faculty member and fellow participation, including at least:
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255	IV.B.2.b)	one weekly teaching conference;
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- 257 IV.B.2.c) one monthly morbidity and mortality conference; and,
 258
 259 IV.B.2.d) one monthly journal club in adult reconstructive orthopaedic surgery.
 260
 261 IV.B.3. The program must include instruction and experience in multimodal pain
 262 treatment, including non-narcotic pain medications and alternative pain
 263 reducing modalities.
 264
 265 IV.B.4. The educational program must emphasize a scholarly approach to clinical
 266 problem solving, self-directed study, teaching, development of analytic skills
 267 and surgical judgment, and research.
 268
 269 **IV.C. Clinical Experiences**
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 271 IV.C.1. The program must provide advanced education to ensure that each fellow
 272 develops special expertise in orthopaedic surgery of the spine.
 273
 274 IV.C.2. Clinical experiences must emphasize the diagnosis of clinical disorders of the
 275 spine, the pathogenesis of these disorders, the operative and non-operative
 276 treatment modalities available for managing these disorders, and the results
 277 and complications of such treatment.
 278
 279 IV.C.3. Fellows must observe and manage patients with a wide variety of problems in
 280 various spinal regions in both inpatient and outpatient settings.
 281
 282 IV.C.4. The breadth of clinical experience must include the evaluation and care of
 283 individuals broadly representative of society and representing a wide variety of
 284 problems in various spinal regions.
 285
 286 IV.C.5. Clinical experiences must include a major role in the continuing care of
 287 patients, including progressive responsibility for assessment, decisions
 288 regarding treatment, non-operative management, pre-operative evaluation,
 289 operative experience, post-operative management, and rehabilitation.
 290
 291 IV.C.5.a) Fellows must continue to provide care for their own post-operative
 292 patients until discharge or until the patients' post-operative conditions
 293 are stable and the episode of care is concluded.
 294
 295 IV.C.6. Clinical experiences must include providing consultation with faculty member
 296 supervision.
 297
 298 IV.C.7. Clinical experiences must include clearly defined teaching responsibilities for
 299 fellows, allied health personnel, and residents and medical students, if present.
 300
 301 IV.C.7.a) These teaching experiences must correlate basic biomedical knowledge
 302 with the clinical aspects of orthopaedic surgery of the spine.
 303
 304 IV.C.8. Clinical experience in the treatment of intradural pathology must be under the
 305 supervision of a faculty member with specific training in these procedures.
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 307 IV.C.8.a) When spinal disease or injury and neurological deficit coexist, the
 308 educational program must ensure appropriate interdisciplinary
 309 cooperation with neurological surgery and rehabilitation medicine.

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311	IV.D.	Scholarly Activity
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313	IV.D.1.	Fellows' Scholarly Activity
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315	IV.D.1.a)	Fellows must participate in basic and/or clinical hypothesis-based research.
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318	IV.D.1.a).(i)	The program must provide scheduled and protected time and facilities for research activities by fellows.
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321	IV.D.1.a).(i).(a)	Protected time for fellow research activities should be a minimum of two days per month, averaged over the length of the program.
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325	IV.D.2.b)	Each fellow should also demonstrate scholarship during the program through one or more of the following: peer-reviewed publications; abstracts, posters, or presentations at international, national, or regional meetings; publication of book chapters; or lectures or formal presentations, such as grand rounds or case presentations.
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331	IV.D.1.	Faculty Scholarly Activity
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333	IV.D.1.a)	Faculty members must demonstrate dissemination of scholarly activity through peer-reviewed publications, chapters, and/or grant leadership.
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336	V.	Evaluation
337		
338	V.A.	Fellow Evaluation
339		
340	V.A.1.	Programs must evaluate fellows within six weeks following entry into the program for expected entry-level skills so that additional education and training can be provided in a timely manner to address identified deficiencies.
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344	V.A.2.	Faculty member evaluation of a fellow's performance must include review of the cases the fellow logged in the ACGME-I Case Log System.
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347	V.B.	Clinical Competency Committee
348		
349		See International Foundational Requirements, Section V.B.
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351	V.C.	Faculty Evaluation
352		
353		See International Foundational Requirements, Section V.C.
354		
355	V.D.	Program Evaluation and Improvement
356		
357		See International Foundational Requirements, Section V.D.
358		
359	V.E.	Program Evaluation Committee
360		
361		See International Foundational Requirements, Section V.E.

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363	VI.	The Learning and Working Environment
364		
365	VI.A.	Principles
366		
367		See International Foundational Requirements, Section VI.A.
368		
369	VI.B.	Patient Safety
370		
371		See International Foundational Requirements, Section VI.B.
372		
373	VI.C.	Quality Improvement
374		
375		See International Foundational Requirements, Section VI.C.
376		
377	VI.D.	Supervision and Accountability
378		
379		See International Foundational Requirements, Section VI.D.
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381	VI.E.	Professionalism
382		
383		See International Foundational Requirements, Section VI.E.
384		
385	VI.F.	Well-Being
386		
387		See International Foundational Requirements, Section VI.F.
388		
389	VI.G.	Fatigue
390		
391		See International Foundational Requirements, Section VI.G.
392		
393	VI.H.	Transitions of Care
394		
395		See International Foundational Requirements, Section VI.H.
396		
397	VI.I.	Clinical Experience and Education
398		
399	VI.I.1.	Night float must not exceed three months per year.
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401	VI.J.	On-Call Activities
402		
403		See International Foundational Requirements, Section VI.J.