Global Spine Diploma Program
Welcome to the first global diploma training program for spine surgery

The Global Spine Diploma Program is the first globally developed, systematic training for spine surgeons, creating a new worldwide standard. It helps orthopedic and neurosurgeons to advance their knowledge and skills across multiple spinal pathologies. A syllabus describing the curriculum content, educational methods, and resources has been developed to achieve defined learning objectives.

Boost your career...

With the Global Spine Diploma Program by AO Spine, you participate in the worldwide advancement of spinal care. Acquire vast knowledge in spine surgery, conveyed by trained expert faculty.

The program is CME accredited by UEMS-EACCME®.

...conveniently at your own pace

The outstanding online learning environment and the clearly defined syllabus assure efficient learning, permitting you to get the most out of your time. In the module’s weekly schedule, learning mainly takes place in the form of self-study. This gives you maximum flexibility to study, respecting your personal pace.

- Curriculum-based
- Efficient and flexible learning
- Program duration 12 months
- International expert faculty with regular live sessions
- Value for money
- CME accredited by UEMS-EACCME®
The AO Spine curriculum
Learn with a clear plan

The syllabus of the Global Spine Diploma Program follows the AO Spine curriculum, which forms the basis for all educational AO Spine events and programs. The curriculum-based approach ensures targeted development of cognitive, procedural, nontechnical, and nonoperative skills.

Up-to-date content

Our contributors review and align the AO Spine curriculum with current challenges in global spine surgery on a regular basis. The 2020 update introduced a whole new approach based on Entrustable Professional Activities (EPA). With this line of action, we ensure the curriculum remains fit for purpose as a framework for continuing professional development (CPD) in the surgical management of spinal disorders.

EPA: from competencies to competence

EPAs describe the units of day-to-day work of spine surgeons, being linked to the specific competencies that are required to perform this work. They convey broader skills beyond medical and surgical expertise. Each EPA is defined by key competencies in all of the pathology domains.
“Competence is the broader holistic view of professional practice that encompasses critical thinking, judgement, and experience when choosing which competencies to apply to a given clinical situation.”

De Cossart and Fish 2005

The domains of pathology

- Trauma
- Degeneration
- Pediatric deformity
- Adult deformity

- Oncology
- Infection
- Spinal fragility fractures
- Inflammatory spondyloarthritis

The core EPAs

1. Make a diagnosis
2. Formulate a treatment plan
3. Explain treatment options to patients
4. Collaborate with multidisciplinary teams
5. Perform an appropriate procedure when indicated
6. Review patient progress and prevent or manage complication
7. Participate in quality improvement activities
We know your time is precious

The Global Spine Diploma Program follows the ultimate syllabus to complete your profession. An attractive mix of different learning formats, self-study, and synchronous training parts assures flexible learning. The amount of time required is approximately 3–5 hours weekly, including self-study time. Total program duration is 12 months.

Flexible and state-of-the-art learning

The Moodle-based learning management system features state-of-the-art multimedia-based learning tools for efficient self-study at an individual pace. In parallel, participants attend instructor-led training sessions and join informal forum discussions. Small groups of participants are supervised by a faculty-trained expert.

Exhaustive and up-to-date content

The modular training structure offers participants the chance to gain breadth of competencies and depth of experience at the same time. The program is structured into five modules, eight weeks each, total duration 12 months.

Proof of knowledge

During each of the five core modules, the participants’ progress is checked with a case presentation and subsequent discussion. Formative assessments take place after each module to evaluate participants’ knowledge.

Syllabus: 12 months of training activities. To ensure individual tuition, we allocate participants to one of two streams—each covers the same comprehensive syllabus, but the order of the five modules is different.
A vast mix of different learning formats: In parallel to small learning groups with individual mentoring, participants learn self-directed, which allows them to set their own schedule.
Global Spine Diploma Program

Modules—What’s inside

There are five modules. Each consists of live online case presentations, plus online resources and forum discussions to be completed at your own pace.

Assessment tasks for modules include a pre-module quiz, logbook, contribution to forum discussions, participation in live case presentation sessions, accessing online resources, and post-module feedback.

The Program Chairperson is Atiq Uz Zaman. Each regional learning group has a moderator who will organize the live case sessions and the weekly discussion forums.

Trauma

Module outline

Week 1: Acute spinal trauma—initial management
Week 2: Radiological assessment and injury classification systems
Week 3: Upper cervical injuries
Week 4: Lower cervical injuries
Week 5: Thoracolumbar injuries
Week 6: Osteoporotic and ankylosic fractures
Week 7: Sacral and spinopelvic injuries
Week 8: Outcomes and complications

Oncology and Infection

Module outline

Week 1: Assessment of the patient with a spinal tumor
Week 2: Treatment planning
Week 3: Surgical procedures—primary
Week 4: Surgical procedures—metastatic
Week 5: Assessing the patient with spinal infection
Week 6: Postoperative infection
Week 7: Pyogenic spondylodiscitis
Week 8: Spinal tuberculosis
Cervical degeneration

Module outline
Week 1: Clinical and radiological assessment
Week 2: Non-operative management
Week 3: Cervical radiculopathy
Week 4: Degenerative cervical myelopathy
Week 5: Anterior surgery for DCM
Week 6: Posterior surgery for DCM
Week 7: Cervical rheumatoid disease
Week 8: Outcomes and complications

Lumbar degeneration

Module outline
Week 1: Clinical and radiological assessment
Week 2: Biopsychosocial model of pain
Week 3: Non-operative treatment
Week 4: Lumbar disc herniation
Week 5: Degenerative spondylolisthesis
Week 6: Lumbar stenosis
Week 7: Lumbar fusion—open and MISS
Week 8: Outcomes and complications

Adult/pediatric deformity

Module outline
Week 1: Adult deformity—assessment and treatment planning
Week 2: Surgical procedures—choosing the approach: anterior, posterior, or both
Week 3: Surgical procedures—augmentation and proximal junctional fixation
Week 4: Outcomes and complications
Week 5: Paediatric deformity—assessment and treatment planning
Week 6: Surgical procedures—idiopathic scoliosis
Week 7: Spondylolisthesis
Week 8: Complications and outcomes
# The AO Spine curriculum

## Key competencies

<table>
<thead>
<tr>
<th>EPA</th>
<th>Trauma</th>
<th>Degeneration</th>
<th>Pediatric deformity</th>
<th>Adult deformity</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Make a diagnosis</strong></td>
<td>Examine the patient for a possible spinal cord injury and reexamine serially if a neurological deficit is found</td>
<td>Analyze the patient history, comorbidities, disability, and quality of life</td>
<td>Analyze the patient history and understand the conditions associated with childhood spinal deformity</td>
<td>Analyze the patient history, comorbidities, disability, and quality of life</td>
</tr>
<tr>
<td><strong>Suspect a spinal injury in the unconscious polytrauma patient</strong></td>
<td>Examine the patient, including neurological assessment, to exclude myelopathy/radiculopathy</td>
<td>Examine the child with spinal deformity, including neurology, abdominal reflexes, and syndromic features</td>
<td>Examine the patient for spinal imbalance and neurological deficit</td>
<td></td>
</tr>
<tr>
<td><strong>Maintain spinal immobilization until spinal trauma is excluded</strong></td>
<td>Select the appropriate diagnostic tests and exclude non-spinal conditions</td>
<td>Order and interpret appropriate imaging to assess spinal alignment</td>
<td>Order appropriate imaging, including bone density</td>
<td></td>
</tr>
<tr>
<td><strong>Arrange appropriate imaging</strong></td>
<td>Measure and interpret spinal alignment and spinopelvic parameters</td>
<td>Describe the classifications of pediatric deformities: scoliosis, kyphosis, spondylolisthesis</td>
<td>Measure and interpret spinal alignment and spinopelvic parameters</td>
<td></td>
</tr>
<tr>
<td><strong>Recognize the radiographic features of instability and cord injury</strong></td>
<td>Correlate clinical and imaging findings, distinguishing between aging changes and pathology</td>
<td>Describe the classifications of adult deformities</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Formulate a treatment plan</strong></td>
<td>Classify the spinal injury using the AO Spine classification systems</td>
<td>Critically review the best available evidence when considering operative and nonoperative interventions</td>
<td>Critically review the best available evidence to support surgical intervention for severe or progressive deformity</td>
<td>Critically review the best available evidence to support surgical intervention</td>
</tr>
<tr>
<td><strong>Use evidence-based decision-making for treatment of the spinal injury, including spinal cord injury management</strong></td>
<td>Describe the biopsychosocial model of pain and recognize the risks for chronification</td>
<td>Monitor mild to moderate deformities and identify factors that indicate the possibility of progression</td>
<td>Assess the need for medical optimization of the patient before surgery, including osteoporosis treatment</td>
<td></td>
</tr>
<tr>
<td><strong>Explain treatment options to patients</strong></td>
<td>Discuss with patients the risks and benefits of surgery compared with conservative treatment</td>
<td>Discuss with patients/parents the risks and benefits of surgery compared with conservative treatment</td>
<td>Discuss with patients the risks and benefits of surgery compared with conservative treatment</td>
<td></td>
</tr>
<tr>
<td><strong>Consider the patient’s preferences and expectations</strong></td>
<td>Consider the patient’s/parents’ concerns and expectations</td>
<td>Consider the patient’s/parents’ concerns and expectations</td>
<td>Consider the patient’s preferences and expectations</td>
<td></td>
</tr>
<tr>
<td><strong>Collaborate with MDTs</strong></td>
<td>Be involved in rehabilitation planning</td>
<td>Involve medical colleagues in preoperative assessment and postoperative care</td>
<td>Involve medical colleagues in preoperative optimization and postoperative care</td>
<td></td>
</tr>
<tr>
<td><strong>Perform appropriate procedures</strong></td>
<td>Description of the importance of a multidisciplinary approach in nonoperative treatment, including pain management</td>
<td>Address spinal balance and consider osteotomies, stabilization, augmentation, distal fixation, posterior and/or anterior fusion</td>
<td>Address spinal balance and consider osteotomies, stabilization, augmentation, distal fixation, proximal junction, posterior and/or anterior fusion</td>
<td></td>
</tr>
<tr>
<td><strong>Use safety protocols to protect the patient and team members</strong></td>
<td>Use safety protocols to protect the patient and team members</td>
<td>Use safety protocols to protect the patient and team members</td>
<td>Use safety protocols to protect the patient and team members</td>
<td></td>
</tr>
<tr>
<td><strong>Preserve function at uninjured levels where possible</strong></td>
<td>Describe the biological agents and other techniques available to increase fusion rate</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Manage or prevent complications</strong></td>
<td>Postinjury, intraoperative, and postoperative</td>
<td>Intraoperative and postoperative</td>
<td>Monitor spinal cord function intraoperatively</td>
<td>Be prepared for the challenges of revision surgery</td>
</tr>
<tr>
<td><strong>Identify postoperative complications early and treat promptly</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Participate in quality improvement</strong></td>
<td>Perform surgical audit on outcomes and complications</td>
<td>Use validated outcome measures to assess effectiveness of interventions</td>
<td>Use validated outcome measures to monitor safety and quality</td>
<td>Use validated outcome measures to assess effectiveness of interventions</td>
</tr>
<tr>
<td><strong>Enroll patients in a trauma registry/database</strong></td>
<td>Enroll patients in a surgical registry/database</td>
<td>Enroll patients in a surgical registry/database</td>
<td>Enroll patients in a surgical registry/database</td>
<td></td>
</tr>
<tr>
<td>EPA</td>
<td>Oncology</td>
<td>Infection</td>
<td>Inflammatory spondyloarthropathy and Arthritis</td>
<td>Spinal fragility fractures and Osteoporosis</td>
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<td>------------------------------------------</td>
</tr>
<tr>
<td><strong>Make a diagnosis</strong></td>
<td>Clini...</td>
<td>Describe the clinical features of...</td>
<td>Assess the patient history, physical...</td>
<td>Recognize that acute vertebral...</td>
</tr>
<tr>
<td></td>
<td>with spinal neoplasm</td>
<td>and differences between pyogenic...</td>
<td>findings, disability, and quality of life</td>
<td>and sacral fragility fractures may be...</td>
</tr>
<tr>
<td></td>
<td>Classify spinal column neoplasms</td>
<td>Describe the general risk factors for...</td>
<td>List diagnostic tests and imaging...</td>
<td>associated with significant...</td>
</tr>
<tr>
<td></td>
<td>Describe the pathology of...</td>
<td>Order and interpret hematological, micro...</td>
<td>Recognize the radiographic features of...</td>
<td>morbidity in the elderly</td>
</tr>
<tr>
<td></td>
<td>for tumors of the spinal column and...</td>
<td>and imaging tests to confirm spinal infection</td>
<td>spinal fragility fractures</td>
<td></td>
</tr>
<tr>
<td></td>
<td>List diagnostic imaging appropriate...</td>
<td>Isolate and identify the causative...</td>
<td>Recognize the radiographic features of...</td>
<td>Classify osteoporotic fractures of...</td>
</tr>
<tr>
<td></td>
<td>for tumors of the spine</td>
<td>for tumors of the spine</td>
<td>of spinal instability or ankylosis</td>
<td>the spine and sacrum</td>
</tr>
<tr>
<td></td>
<td>Describe mechanical instability as...</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Establish a diagnosis based on...</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td><strong>Formulate a treatment plan</strong></td>
<td>Critically review the evidence...</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>for nonsurgical treatment of spinal tumors</td>
<td>Identify preoperative risk factors for...</td>
<td>Describe the principles of medical...</td>
<td>Describe the medical management of...</td>
</tr>
<tr>
<td></td>
<td>For primary tumors, discuss the...</td>
<td>after spine surgery and discuss the preventive strategies to minimize...</td>
<td>management of inflammatory arthritis</td>
<td>osteoporosis</td>
</tr>
<tr>
<td></td>
<td>For metastatic tumors, discuss the...</td>
<td>Consider surgical intervention for...</td>
<td>List surgical indications in the management of...</td>
<td>Describe the medical management of...</td>
</tr>
<tr>
<td></td>
<td>Review the unique considerations in the...</td>
<td>spinal instability, and debridement</td>
<td>spondyloarthropathy</td>
<td>osteoporosis</td>
</tr>
<tr>
<td></td>
<td><strong>Collaborate with MDTs</strong></td>
<td>Discuss the importance of...</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Discuss with patients the...</td>
<td>Collaborate with the infectious...</td>
<td>Include rheumatology colleagues in...</td>
<td>Participate in joint care with an...</td>
</tr>
<tr>
<td></td>
<td>Discuss with patients and family the...</td>
<td>diseases team to prescribe...</td>
<td></td>
<td>orthogeriatric service</td>
</tr>
<tr>
<td></td>
<td>List the options for radiotherapy...</td>
<td>Discuss with patients the indications for...</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Discuss surgical strategies...</td>
<td>for surgical intervention in...</td>
<td></td>
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<tr>
<td></td>
<td>Review the role of...</td>
<td>Describe the potential...</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Review the role of minimally invasive surgical techniques/separation...</td>
<td>Describe the place of instrumentation in...</td>
<td>Consider prophylactic treatment at...</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Perform appropriate procedures</strong></td>
<td>Debridement, decompression, reconstruction, fusion</td>
<td>Preserve function at unaffected...</td>
<td>unaffected levels where indicated</td>
</tr>
<tr>
<td></td>
<td>Manage post-infective complications, including deformity, loss of fixation, pseudarthrosis</td>
<td>Reduction, stabilization, decompression, osteotomies, fusion</td>
<td>Consider prophylactic treatment at...</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Anticipate intraoperative complications</td>
<td>Vertebroplasty, kyphoplasty, sacroplasty</td>
<td>Intraoperative (cement leakage) and postoperative (neuro deficit)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Recognize recurrent disease postoperatively</td>
<td></td>
<td>Describe strategies for preventing...</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Participate in quality improvement</strong></td>
<td>Use validated outcome measures to monitor safety and quality</td>
<td>Regularly review the incidence and...</td>
<td>Perform surgical audit on outcomes and...</td>
</tr>
<tr>
<td></td>
<td>Enroll patients in a tumor registry/database</td>
<td>Enroll patients in a registry/database</td>
<td>Perform surgical audit on outcomes and complications</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enroll patients in a tumor registry/database</td>
<td>Enroll patients in a registry/database</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Expand your network

The Global Spine Diploma Program is driven, written, and taught by world-renowned surgeons, tailored to surgeons’ needs. With their vast experience, local and international faculty members give mentoring support throughout the program.

Learn from the best

Continuously improve your expertise, not only during the Global Spine Diploma Program itself, but also after graduation: The program opens the door to a large network of the world’s leading spine surgery experts and other training participants. Training mentors make sure that spine surgeons of tomorrow who completed the program use well-established, evidence-based, approaches and techniques.

Over 60 expert online-faculty based worldwide

Each faculty member has undergone a dedicated faculty training program. Based on adult learning principles, this program promotes excellence in teaching, facilitation of surgeon learning, and curriculum development, and provides constructive feedback to the participating faculty members. The skills and strategies developed in this program have a positive impact on all our educational activities and contribute to our mission to deliver high-quality education—ultimately translating into clinical practice for the benefit of patients.

“With the Global Spine Diploma Program, we make sure that recent graduates from an orthopedic or a neurosurgery training mark the next generation of leading spine surgeons worldwide.”
Global Spine Diploma Program Committee

Atiq Uz Zaman
Lahore, Pakistan
Program Chair
Current Infection Module Chair

Luiz Gustavo da Rocha
Curitiba, Brazil
Current Trauma Module Chair

Jeremy Reynolds
Oxford, England
Current Oncology Module Chair

Bryan Ashman
Canberra, Australia
Current Cervical Degeneration Module Chair

Karsten Wiechert
Munich, Germany
Current Lumbar Degeneration Module Chair

Evan Davies
Southampton, England
Current Adult/Pediatric Deformity Module Chair
Apply now

Join the spine surgery elite of tomorrow
- First globally developed, systematic training for spine surgery
- Driven, written, and taught by world-renowned surgeons
- Modules tailored to specialize in spine surgery, leadership, or research
- Syllabus based on thorough curriculum, flexible online learning
- Small groups of recent graduates from orthopedic or neurosurgery training
- 12-month duration
- On average 3-5 hours of work to be completed each week
- Choice of two start dates to suit your needs: February and August

Fees
The program consists of two semesters. The full program fee is CHF 2,500, which may be paid in two separate instalments.

How to apply

Visit the website
- Read terms and conditions
- Valid AO Spine membership required
- Administration fee: CHF 100

Complete application requirements
- Upload certificate confirming training as orthopedic surgeon/neurosurgeon
- Upload CV
- Complete application forms
- Apply online
- Submit administration fee: CHF 100

Review of application
- Application is reviewed by Program Chair and AO Spine program manager

Registration
- Eligible candidates are notified that they can register

Questions?
Our AO Spine staff are happy to answer your questions and provide you with additional information. Contact us at globalspinediploma@aospine.org.

Apply now for the world’s first global diploma training program for spine surgery:

www.aospine.org