EDUCATION EURO SPINE

EduWeek 2025

2

Degenerative
Disease of the Spine



General Information

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| | Basic and Adva | anced Courses | |
|--|---|---|--|
| AUTUMN 2024 | MAY-JUNE 2025 | 23-25 JUNE 2025 | 2-4 SEPTEMBER 2025 |
| REGISTRATION OPENS | PART 1 - E-LEARNING | PART 2 - LIVE SESSIONS | PART 3 - VIRTUAL LIVE SESSION |
| Registrations open in early October 2024 Exact date announced on the EUROSPINE website, through newsletters and social media Participants can now register and save their place for Basic and Advanced modules Further details and preliminary programmes are shared on the EUROSPINE website | Enrolment of participants to the EUROSPINE Learning Management System (LMS) by the Education team Self-paced completion of the module/s by participants Assessment: MCQs that must be passed with a minimum of 70% + CME evaluation Mode of study: online/distance learning through the LMS NO physical presence required | Live sessions take place at IRCAD in Strasbourg/France Live sessions include, lectures, case based discussions, workshops, group work (and CadLabs/SkillsLabs for designated modules) Participants arrange their own travel/accommodation to/in Strasbourg/France to take part in the modules Assessment: CME evaluations Modules 1-5: after completion of part 2+3 Module 6: after completion of part 2 Mode of study: in-person, physical presence required | Bring Your Own Case (BYOC) for Modules 1-5 only Participants submit a case prior to the session. Module faculty choose three case that are discussed in breakout groups and facilitated by faculty members. Assessment: CME evaluation after completion of part 2+3 Mode of study: online live via Zoom NO physical presence required |



Quick Facts

| DATES & TIMES | Live session Group 1: 24 June 2025 (13:50-18:30 CEST) AND 25 June 2025 (07:50-12:30 CEST) Group 2: 25 June 2024 (07:50-18:30 CEST) Virtual live session Group 1 and 2: 02 September 2025 (16:00-17:30 CEST) |
|----------------------|--|
| LIVE VENUE | IRCAD, 1 Place de l'Hôpital, 67000 Strasbourg, FRANCE |
| MAX. ATTENDEES | 40 delegates (per group) |
| REGISTRATION FEE | EUROSPINE Member: €800 Non-member: €1,000 |
| CME CREDITS | Accreditation by the European Board for Accreditation of Continuing Education for Health Professionals (EBAC) is pending. |
| LANGUAGE | English |
| DRESS CODE | Smart casual |
| E-LEARNING | A computer (Mac/PC) or tablet (Android/Mac) and stable internet connection are required to access the e-learning content. In preparation for the live session, a mandatory and self-paced e-learning component will be available from May 2024 on the EUROSPINE Learning Management System (LMS). This component must be completed before the live session. |
| MODULE COMPLETION | A module is only deemed as complete when participants have met ALL of the following conditions: Passed the e-learning with at least 70% AND Attended the live session AND Attended the virtual BYOC live session AND Submitted the course evaluations for the e-learning and the (virtual) live session component |
| Target audience | Senior trainees and trained surgeons, who are planning a career in spine surgery. |
| IMPORTANT (!) | Completion of e-learning module is mandatory. Attendance of the live session and virtual live session is mandatory Group 1 and 2 contain the same content. Participants are registered for ONE of the groups only! Changing groups once registered is NOT possible! |



PART1 - E-Learning Programme

(available from May 2025)

| Time/Duration | Торіс | Faculty |
|--|---|--------------|
| | Cervical & Lumbar | |
| 00:21 | Epidemiology, natural history, and imaging of radicular pain | |
| 00:15 | Effective non-surgical interventions for radicular pain | |
| 00:17 | Surgery for radicular pain in the lumbar spine | |
| 00:17 | Surgery for radicular pain in the cervical spine | |
| 00:20 | Knowledge check questions | |
| | Cervical & Thoracic Myelopathy | |
| 00:11 | Presentation, causes, and natural history of myelopathy | |
| 00:11 | Imaging myelopathy: techniques and prognostic indicators | |
| 00:17 | Clinical and surgical decision making in cervical myelopathy | |
| 00:18 | Clinical and surgical decision making in thoracic myelopathy | |
| 00:20 | Knowledge check questions | |
| | Lumbar Spinal Stenosis & Degenerative Spondy | ylolisthesis |
| 00:10 | Presentation, natural history, and non-surgical treatment of spinal stenosis | |
| 00:13 | Imaging of spinal stenosis and degenerative spondylolisthesis | |
| 00:17 | Surgical treatment of lumbar stenosis | |
| 00:12 | Surgical treatment of degenerative spondylolisthesis | |
| 00:20 | Knowledge check questions | |
| Spondylolysis & Low-Grade Isthmic Spondylolisthesis, Axial Back Pain, Degenerative Deformity | | |
| 00:13 | Spondylolysis and low-grade isthmic spondylolisthesis | |
| 00:14 | Natural history, obstacles to recovery and non-surgical treatment of axial pain | |
| 00:14 | How to investigate a patient with axial pain | |
| 00:14 | Surgical treatment for axial back pain | |
| 00:17 | Degenerative deformity of the lumbar spine | |
| 00:20 | Knowledge check questions | |



PART 2 - Live Session Programme

| Group 1 | | |
|---|--|--|
| 24 June 2025 | | |
| 13:50–16:00 | Cases | |
| 16:00–16:15 | Coffee break | |
| 16:15–18:30 | Cases | |
| 25 June 2025 | | |
| 07:50 – 08:00 | Preparation for CadLab workshop (sign-in, changing, going to assigned tables etc) | |
| 08:00–12:30 (incl. 1x30 min. break around 10:00-10:30) | CadLab Workshop 1 | |
| 12:30 | End Group 1 | |

| Group 2 | | |
|---|--|--|
| 25 June 2025 | | |
| 07:50-10:00 | Cases | |
| 10:00-10:15 | Coffee break | |
| 10:15-12:30 | Cases | |
| 12:30-13:30 | Lunch | |
| 13:50 – 14:00 | Preparation for CadLab workshop (sign-in, changing, going to assigned tables etc) | |
| 14:00–18:30 (incl. 1x30 min. break around 16:00-16:30) | CadLab Workshop 2 | |
| 18:30 | End Group 2 | |

| Case Based Discussions | | |
|--|----------------|----------------|
| Topics Group 1 and 2 | Case Presenter | Expert Opinion |
| Recurrent lumbar disc herniation with radicular pain | | |
| 3 level lumbar spinal stenosis with minor slip | | |
| 2-level cervical radicular pain | | |
| Low back pain | | |
| Cervical myelopathy with multilevel pathology | | |
| Degenerative deformity and root pain | | |

| Skills Lab Workshop Group 1 | | |
|---|-----------|---------|
| Topic | Support | Faculty |
| Minimally invasive spine surgery | Realists | |
| Minimally invasive spine surgery | UpSurgeon | |
| Transforaminal Lumbar Interbody Fusion (TLIF) | Realists | |
| Transforaminal Lumbar Interbody Fusion (TLIF) | UpSurgeon | |
| Cervical laminoplasty with piezosurgery | Realists | |
| Cervical laminoplasty with drill | UpSurgeon | |



| Lateral Approach: Lateral Lumbar Interbody Fusion (LLIF) | Cadaver specimen | |
|--|------------------|--|
| Thoracic pedicle screw fixation and hybrid solutions | Cadaver specimen | |

| Skills Lab Workshop Group 2 | | |
|--|------------------|---------|
| Торіс | Support | Faculty |
| Minimally invasive spine surgery | Realists | |
| Minimally invasive spine surgery | UpSurgeon | |
| Transforaminal Lumbar Interbody Fusion (TLIF) | Realists | |
| Transforaminal Lumbar Interbody Fusion (TLIF) | UpSurgeon | |
| Cervical laminoplasty with piezosurgery | Realists | |
| Cervical laminoplasty with drill | UpSurgeon | |
| Lateral Approach: Lateral Lumbar Interbody Fusion (LLIF) | Cadaver specimen | |
| Thoracic pedicle screw fixation and hybrid solutions | Cadaver specimen | |
| END OF LIVE SESSION | | |



PART 3 - Virtual Live Session

Bring Your Own Case (BYOC)

| 02 September 2025 16:00 – 17:30 CEST | | |
|---|------------------------|--|
| 16:00-16:05 | Introduction | |
| 16:05-16:25 | Breakout session 1 | |
| 16:25-16:30 | Discussion 1 | |
| 16:30-16:50 | Breakout session 2 | |
| 16:50-16:55 | Discussion 2 | |
| 16:55-17:00 | Break | |
| 17:00-17:20 | Breakout 3 | |
| 17:20-17:25 | Discussion 3 | |
| 17:25-17:30 | Wrap-up and conclusion | |
| END OF MODULE | | |

Learning Outcomes

Cervical & Lumbar:

Herniated Discs, Diagnosis & Treatment of Radicular Pain

Epidemiology, Natural History and Imaging of Radicular Pain

- Use common epidemiological terms to define and outline prevalence of radicular pain
- Understand the natural history of radicular pain
- Identify the contributory factors
- Diagnose causes of radicular pain
- Explain how disc herniation occurs
- Differentiate between the roles of MRI and CT in radicular pain imaging
- Interpret images using correct nomenclature

Effective Non-Surgical Interventions for Radicular Pain

- Evaluate non-surgical options for radicular pain
- Explain these options to patients
- Identify suitable patients for non-operative management
- Differentiate between the 3 types of analgesics
- Summarise the roles of physiotherapy and injection therapy.

Surgery for Radicular Pain in the Lumbar Spine

- Differentiate between absolute and relative indications for surgery
- Identify appropriate timing for surgery
- Evaluate common surgical techniques with supporting evidence
- Compare surgical and non-surgical options
- Formulate a surgical plan
- Anticipate complications and plans for return to work and activity



Surgery for Radicular Pain in the Cervical Spine

- Outline the causes and incidence of radicular pain in the cervical spine
- Justify indications for surgery
- Identify factors influencing regression of symptoms from cervical disc herniation
- Select appropriate surgical approach
- Evaluate surgical options
- Anticipate complications and plans for return to work and activity
- Formulate a plan when an adjacent level problem emerges

Cervical & Thoracic Myelopathy

Presentation, Causes, and Natural History of Myelopathy

- Compare functional and clinical presentation of cervical spondylotic myelopathic syndromes
- Grade the disease using validated instruments
- Anticipate clinical traps in diagnosis and consider differentials
- Describe the natural history
- Identify the distinctive clinical presentation of craniocervical and thoracic myelopathy

Imaging Myelopathy: Techniques & Prognostic Indicators

- Interpret MRI and CT findings in spondylotic myelopathy
- Recognize signal changes in different MRI sequences and their significance
- Consider differential diagnoses in spinal cord non tumoral pathology
- Understand the current place of myelography and CT myelography in imaging myelopathy

Clinical & Surgical Decision Making in Cervical Myelopathy

- Define a treatment plan for patients with cervical myelopathy
- Identify absolute and relative indications for surgery in cervical spondylotic myelopathy
- Compare different surgical approaches to cervical myelopathy and define a rationale for the surgical plan
- Discuss the place of intraoperative neuromonitoring in cervical myelopathy

Clinical & Surgical Decision Making in Thoracic Myelopathy

- Assess the risk-benefit balance for surgery in patients with thoracic myelopathy
- Compare different surgical approaches to thoracic myelopathy

Lumbar Spinal Stenosis & Degenerative Spondylolisthesis

Presentation, Natural History and Non-Surgical Treatment of Spinal Stenosis

- Outline the signs & symptoms of lumbar spine stenosis (LSS)
- Understand the clinical features and natural history of neurogenic claudication
- Classify LSS
- Evaluate surgical and non-surgical options
- Appraise rehabilitation alternatives

Imaging of Spinal Stenosis and Degenerative Spondylolisthesis

• Describe the different imaging techniques to identify lumbar stenosis and degenerative spondylolisthesis



- Classify and grade lumbar stenosis
- Appraise the role of full spine and functional X-rays in the assessment of patients with lumbar spinal stenosis and degenerative spondylolisthesis

Surgical Treatment of Lumbar Stenosis

- Formulate principles for stenosis surgery
- Tailor the surgical technique to the individual patient
- Recognize indications for fusion in patients with lumbar stenosis

Surgical Treatment of Degenerative Spondylolisthesis

- Evaluate surgical and non-surgical options for degenerative spondylolisthesis
- Summarise controversies in the choice of treatment for degenerative spondylolisthesis

Spondylolysis & Low-Grade Isthmic Spondylolisthesis, Axial Back Pain, Degenerative Deformity

Spondylolysis & Low-Grade Spondylolisthesis

- Outline the epidemiology and natural history
- Describe the signs & symptoms of spondylolysis & low-grade spondylolisthesis
- Formulate principles of management
- Evaluate surgical options
- Anticipate complications of instrumentation and repositioning
- Appraise rehabilitation alternatives

Natural history, Obstacles to Recovery and Non-Surgical Treatment of Axial pain

- Anticipate potential obstacles to recovery
- Explain how flagging can be used
- Plan strategies for managing catastrophizing
- Differentiate between acute and chronic back pain
- Evaluate options for non-surgical management of back pain
- Summarise current evidence pertaining to operative and non-operative management

How to investigate a Patient with Axial Pain

- Understand the role of clinical history and physical examination in the assessment of patients with axial pain
- Decide the need for imaging studies
- Select patients with axial pain who need advanced diagnostic techniques
- Review the place of diagnostic blocks and discography in patients with axial pain

Surgery for Axial Back Pain

- Provide a rationale for fusion surgery
- Evaluate alternative options
- Select appropriate approach
- Link to current evidence

Degenerative Lumbar Deformity

- Describe the pathogenesis and natural history of degenerative lumbar deformity
- Explain the concept of spinal balance and the spinopelvic parameters
- Evaluate the risk-benefit balance for surgery and potential for complications



• Formulate a surgical plan for lumbar degenerative kyphoscoliosis

Skills Workshop

Anterior Cervical Fixation Systems: Cages & Plates

- Describe the surgical steps of the procedure
- Identify surgical differences between cage fusion and disc arthroplasty
- Identify tricks and pitfalls in decompression of the spinal canal and foramen
- Identify tricks and pitfalls in anterior plating

Lateral Approach: Lateral Lumbar Interbody Fusion (LLIF)

- Identify the fluoroscopic targets for lateral approach to the lumbar spine
- Perform minimally invasive lateral approach to the discs L2-L3, L3-L4, L4-L5
- Identify key structures and discuss risks related to local vascular neuro anatomy
- Approach the disc using neuromonitoring and tubular system
- Convert the approach to mini-open lumbotomy and access the disc by reclining the psoas muscle
- Perform a discectomy and prepare endplates
- Insert a LLIF cage

Lumbar Pedicle Screws & Transforaminal Lumbar Interbody Fusion (TLIF)/ Posterior Lumbar Interbody Fusion (PLIF)

- Identify entry points for lumbar pedicle screws insertion
- Prepare lumbar pedicles and insert lumbar pedicle screws
- Learn/revise neural anatomy of the lumbar spine
- Perform facetectomy, prepare the disc space and insert a TLIF/PLIF cage

Learning Outcomes – Bring Your Own Case (BYOC)

The module concludes with the Bring Your Own Case (BYOC) virtual live session. The BYOC is a case-based learning session based on the participants own practice or experience. Participants will be asked to submit a case on the module topic before the virtual live session.

The cases are ideally the participant's own case and should preferably present questions with no single right answer or dilemmas. The cases could also be from their own departments and ideally, the participant should have had some personal connection or have at least seen the case.

The cases will be shared with assigned faculty preceptors who will process the cases and determine the line-up and order of discussion. Some cases may be grouped with that of other colleagues in discussion.

At the end of the session participants will be able to:

- Synthesise background knowledge and principles on the topic (module name) and apply to their own case and other cases presented
- Identify dilemmas and issues with their own case and other cases presented
- Raise points and questions on their own case and other cases presented
- Defend their positions regarding their own case and cases presented during the discussion
- Recognise and understand diverse perspectives from other participants and faculty



- Assimilate new ideas, new techniques and information, and adopt them appropriately in practice
- Formulate clinical decisions, strategies and generate possible solutions on their own case and other cases presented

Recommended Reading

Part II Basic Module 2: Surgical Treatment of Degenerative Cervical, Thoracic and Lumbar Spinal Pathologies. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach. Switzerland: Springer.

- F. Ringel and S. Kantelhardt. (2019). Anterior Cervical Subaxial Treatment (Fusion). B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 19-24). Switzerland: Springer.
- F. Ringel and E. Archavlis. (2019). Cervical Motion Preserving Procedures (TDR). B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 25-32). Switzerland: Springer.
- F. Ringel and A. Gutenberg. (2019). Cervical Motion Preserving Procedures (Frykholm). B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 33-38). Switzerland: Springer.
- M. Czabanka and P. Vajkoczy. (2019). Cervical Myelopathy: Indication and Operative Procedure. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 39-50). Switzerland: Springer.
- L. Bobinski. (2019). Cervical Posterior Long Construct Stabilization. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 51-58). Switzerland: Springer.
- B. Meyer and S. Krieg. (2019). Thoracic Disc Herniation and Myelopathy. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 59-64). Switzerland: Springer.
- N.A. van der Gaag and W. Moojen. (2019). Lumbar Disc Herniation, Nucleo- and Sequesterectomy. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 65-70). Switzerland: Springer.
- I. Magras, A. Athanasiou and V. Magra. (2019). Lumbar Spinal Stenosis Requiring Decompression and Fusion. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 71-76). Switzerland: Springer.
- I. Magras, A. Athanasiou and V. Magra. (2019). Lumbar Spinal Stenosis. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 77-80). Switzerland: Springer.
- J. Patino and J. Lafuente. (2019). Degenerative Spondylolisthesis. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 81-86). Switzerland: Springer.
- S. Hartmann, A. Tschugg and C. Thomé. (2019). Basic Degenerative Lumbar Scoliosis. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 87-94). Switzerland: Springer.
- S.K, Tschoeke. (2019). Thoracolumbar Instrumentation and Fusion for Degenerative Disc Disease. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 95-108). Switzerland: Springer.
- M. Stoffel. (2019). Lumbar Non-Fusion Techniques. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 109-116). Switzerland: Springer.
- E. Shibhan and B. Meyer. (2019). Management of Failed Back Surgery Syndrome. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 117-122). Switzerland: Springer.



• H. Meyer and Y. Ryang. (2019). Navigation of the Cervical, Thoracic and Lumbar Spine. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 129-137). Switzerland: Springer.