



EDUCATION **EURO  
SPINE**

# EduWeek 2024

24-26 JUNE | STRASBOURG, FRANCE

**Basic Module 2:  
Degenerative Diseases of the Spine**

## General Information

### EUROSPINE, the Spine Society of Europe

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\*E-learning only

## EduWeek 2024 Overview

| AUTUMN 2023   | APRIL - JUNE 2024  | 24 - 26 JUNE 2024   | 3-6 SEPTEMBER 2024  |
|---|--|---|---|
| <p><b>REGISTRATION OPENS</b></p> <ul style="list-style-type: none"> <li>Registrations open in early October 2023</li> <li>Exact date announced on the EUROSPINE website, through newsletters and social media</li> <li>Participants can now register and save their place for Basic and Advanced modules</li> <li>Further details and preliminary programmes are shared on the EUROSPINE website</li> </ul> | <p><b>PART 1 - E-LEARNING</b></p> <ul style="list-style-type: none"> <li>Enrolment of participants to the EUROSPINE Learning Management System (LMS) by the Education team</li> <li>Self-paced completion of the module/s by participants</li> <li>Assessment: MCQs that must be passed with a minimum of 70% + CME evaluation</li> <li>Mode of study: online/distance learning through the LMS</li> <li><u>NO physical presence required</u></li> </ul> | <p><b>PART 2 - LIVE SESSIONS</b></p> <ul style="list-style-type: none"> <li>Live sessions take place at JRCAD in Strasbourg/France</li> <li>Live sessions include, lectures, case based discussions, workshops, group work (and CadLabs/SkillsLabs for designated modules)</li> <li>Participants arrange their own travel/accommodation to/in Strasbourg/France to take part in the modules</li> <li>Assessment: CME evaluation after completion of part 2+3</li> <li>Mode of study: <u>in-person</u></li> <li><u>Physical presence required</u></li> </ul> | <p><b>PART 3 - VIRTUAL LIVE SESSION</b></p> <ul style="list-style-type: none"> <li>Bring Your Own Case (BYOC)</li> <li>Participants submit a case prior to the session.</li> <li>Module faculty choose three case that are discussed in breakout groups and facilitated by faculty members.</li> <li>Assessment: CME evaluation after completion of part 2+3</li> <li>Mode of study: <u>online live via Zoom</u></li> <li><u>NO physical presence required</u></li> </ul> <p style="text-align: center;"><b>NEW in 2024</b></p> |

## Quick Facts

|                          |   |
|--------------------------|---|
| <b>DATES &amp; TIMES</b> | <p><b><u>Live session</u></b><br/> Group 1: 25 June 2024 (13:50-18:30 CEST) <b>AND</b><br/> 26 June 2024 (08:00-12:30 CEST)<br/> Group 2: 26 June 2024 (07:50-18:30 CEST)</p> <p><b><u>Virtual live session</u></b><br/> Group 1 and 2: 03 September 2024 (16:00-17:30 CEST)</p>  |
| <b>LIVE VENUE</b>        | IRCAD, 1 Place de l'Hôpital, 67000 Strasbourg, FRANCE   |
| <b>MAX. ATTENDEES</b>    | 40 delegates (per group)  |
| <b>REGISTRATION FEE</b>  | EUROSPINE Member: €800<br>Non-member: €1,000  |
| <b>CME CREDITS</b>       | EACCME accreditation is currently pending.  |
| <b>LANGUAGE</b>          | English   |
| <b>DRESS CODE</b>        | Smart casual  |
| <b>E-LEARNING</b>        | <p>A computer (Mac/PC) or tablet (Android/Mac) and stable internet connection are required to access the e-learning content.</p> <p>In preparation for the live session, a mandatory and self-paced e-learning component will be available from 1 April 2024 on the EUROSPINE Learning Management System (LMS). This component must be completed before the live session.</p>   |
| <b>MODULE COMPLETION</b> | <p>A module is only deemed as complete when participants have met <b>ALL</b> of the following conditions:</p> <ul style="list-style-type: none"> <li>• Passed the e-learning with at least 70% <b>AND</b></li> <li>• Attended the live session <b>AND</b></li> <li>• Attended the virtual BYOC live session <b>AND</b></li> <li>• Submitted the course evaluations for the e-learning and the (virtual) live session component</li> </ul> |
| <b>Target audience</b>   | Senior trainees and trained surgeons, who are planning a career in spine surgery.   |
| <b>IMPORTANT (!)</b>     | <ul style="list-style-type: none"> <li>• Completion of e-learning module is mandatory.</li> <li>• Attendance of the live session and virtual live session is mandatory</li> <li>• Group 1 and 2 contain the same content. Participants are registered for ONE of the groups only!</li> <li>• Changing groups once registered is NOT possible!</li> </ul>  |

**PART1 - E-Learning Programme**

(available from 1 April 2024)

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

|       |  |         |
|-------|--|---------|
| 00:17 | Degenerative deformity of the lumbar spine | Munting |
| 00:20 | Knowledge check questions                  |         |

## PART 2 - Live Session Programme

| Group 1   |   |
|---|---|
| 25 June 2024  |   |
| 13:50–16:00   | Cases   |
| 16:00–16:15   | Coffee break  |
| 16:15–18:30   | Cases   |
| 26 June 2024  |   |
| 07:50 – 08:00   | Preparation for CadLab workshop (sign-in, changing, going to assigned tables etc) |
| 08:00–12:30<br>(incl. 1x30 min. break around 10:00-10:30) | CadLab Workshop 1   |
| <b>12:30</b>  | <b>End Group 1</b>  |

| Group 2   |   |
|---|---|
| 26 June 2024  |   |
| 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<br>(incl. 1x30 min. break around 16:00-16:30) | CadLab Workshop 2   |
| <b>18:30</b>  | <b>End Group 2</b>  |

| Case Based Discussions                               |            |
|--|------------|
| Topics Group 1 and 2                                 | Faculty    |
| Recurrent lumbar disc herniation with radicular pain | Panzenböck |
| 3 level lumbar spinal stenosis with minor slip       | TBC        |
| 2-level cervical radicular pain                      | Debono     |
| Low back pain  | Hellum     |
| Cervical myelopathy with multilevel pathology        | Moojen     |
| Degenerative deformity and root pain                 | TBC        |

| Skills Lab Workshop Group 1                   |                |         |
|---|----------------|---------|
| Topic   | Support        | Faculty |
| Transforaminal Lumbar Interbody Fusion (TLIF) | Surgical STUDs | TBC     |
|   |                | TBC     |

|  |                     |       |
|--|---------------------|-------|
| Cervical laminoplasty with drill                         | RealSpine simulator | Ryang |
|  |                     | Klezi |
| Lateral Approach: Lateral Lumbar Interbody Fusion (LLIF) | Cadaver specimen    | TBC   |
| Thoracic pedicle screw fixation and hybrid solutions     | Cadaver specimen    | Kiter |

| <b>Skills Lab Workshop Group 2</b>                       |                     |                |
|--|---------------------|----------------|
| <b>Topic</b>   | <b>Support</b>      | <b>Faculty</b> |
| Transforaminal Lumbar Interbody Fusion (TLIF)            | Surgical STUDs      | Panzenböck     |
|  | RealSpine simulator | Försth         |
| Cervical laminoplasty with drill                         | RealSpine simulator | Pereira        |
|  | RealSpine simulator | Moojen         |
| Lateral Approach: Lateral Lumbar Interbody Fusion (LLIF) | Cadaver specimen    | Hellum         |
| Thoracic pedicle screw fixation and hybrid solutions     | Cadaver specimen    | Debono         |
| <b>END OF LIVE SESSION</b>                               |                     |                |

## PART 3 - Virtual Live Session

### Bring Your Own Case (BYOC)

| <b>03 September 2024</b><br><b>16:00 – 17:30 CEST</b> |                        |
|---|------------------------|
| 17:00-17:05   | Introduction           |
| 17:05-17:25   | Breakout session 1     |
| 17:25-17:30   | Discussion 1           |
| 17:30-17:50   | Breakout session 2     |
| 17:50-17:55   | Discussion 2           |
| 17:55-18:00   | Break                  |
| 18:00-18:20   | Breakout 3             |
| 18:20-18:25   | Discussion 3           |
| 18:25-18:30   | Wrap-up and conclusion |
| <b>END OF MODULE</b>                                  |                        |

## 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. Gutenber. (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.