

EduWeek 2025

2

**Degenerative
Disease of the Spine**

General Information

EUROSPINE, the Spine Society of Europe

c/o Pfister Treuhand AG

Bankstrasse 4, 8610 Uster-Zurich, Switzerland

W: www.eurospine.org

Chair of Education Committee

Paulo Pereira

E: education@eurospine.org

Director of Education and Research

Julie-Lyn Noël

E: noel@eurospine.org

Education and Research Manager

Oriana Pivetta

E: pivetta@eurospine.org

Module Chairs

Christian Hellum, Norway

Wouter Moojen, Netherlands

Module Faculty

Felix Tome Bermejo, Spain

Lukas Bobinski, Sweden

Triantafyllos Bouras, Belgium

Alberto Diez-Ulloa, Spain

Anas Dyab, Luxembourg

Marco Germann, Germany *

Frank Hassel, Germany *

Zdenek Klezl, Czech Republic

Lukas Panzenböck, Austria

Fabio Pozzi, Italy

Raluca Reitmeier, Switzerland

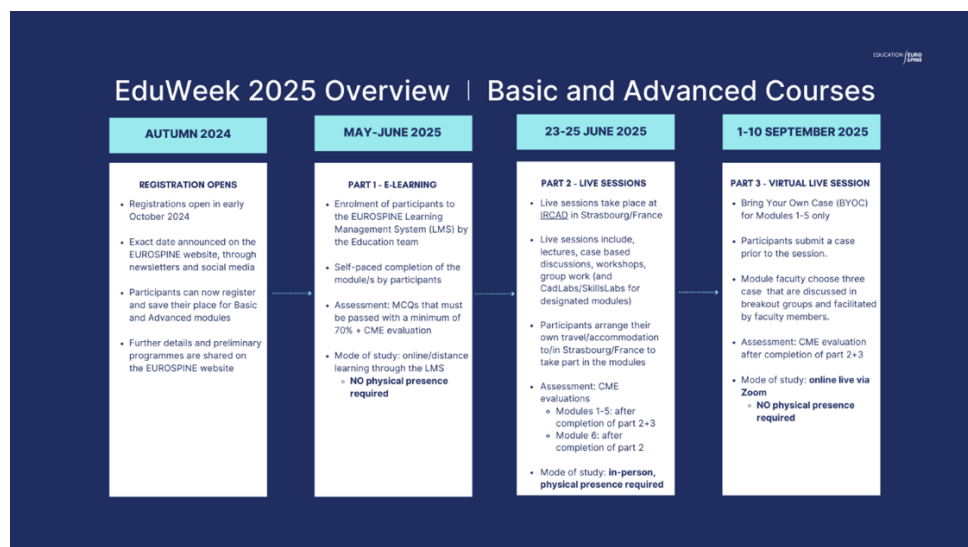
Yu-Mi Ryang, Germany

Stavros Stavridis, Greece

Sven Vetter, Germany

Gyven Yorukoglu, Germany *

**skills lab faculty*



Quick Facts

DATES & TIMES	<p><u>Live session</u> 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)</p> <p><u>Virtual live session</u> Group 1 and 2: 02 September 2025 (18:00-19:30 CEST)</p>
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	<p>The EUROSPINE Basic and Advanced Spine Surgery eLearning platform made available on https://eurospine.matrixlms.eu and organized by EUROSPINE, the Spine Society of Europe is accredited by the European Accreditation Council for Continuing Medical Education (EACCME®) to provide the following CME activity for medical specialists. The e-learning activity for this module is accredited with 5 CME credits.</p> <p>Only those e-learning materials that are displayed on the UEMS-EACCME® website have formally been accredited. Through an agreement between the Union Européenne des Médecins Spécialistes and the American Medical Association, physicians may convert EACCME® credits to an equivalent number of AMA PRA Category 1 Credits™. Information on the process to convert EACCME® credit to AMA credit can be found at https://edhub.ama-assn.org/pages/applications.</p> <p>“The EduWeek 2025: Module 2: Degenerative Diseases of the Spine - Cohort 1, Strasbourg, France 24/06/2025 - 02/09/2025, has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME®) with 9.0 European CME credits (ECMEC®s). Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity.”</p> <p>“The EduWeek 2025: Module 2: Degenerative Diseases of the Spine - Cohort 2, Strasbourg, France 25/06/2025 - 02/09/2025, has been accredited by the European Accreditation Council for Continuing Medical Education (EACCME®) with 9.0 European CME credits (ECMEC®s). Each medical specialist should claim only those hours of credit that he/she actually spent in the educational activity.”</p> <p>“Through an agreement between the Union Européenne des Médecins Spécialistes and the American Medical Association, physicians may convert EACCME® credits to an equivalent number of AMA PRA Category 1 Credits™. Information on the process to convert EACCME® credit to AMA credit can be found at https://edhub.ama-assn.org/pages/applications .</p> <p>“Live educational activities, occurring outside of Canada, recognised by the UEMS-EACCME® for ECMEC®s are deemed to be Accredited Group Learning Activities (Section 1) as defined by the Maintenance of Certification Program of the Royal College of Physicians and Surgeons of Canada.”</p>

LANGUAGE	English
DRESS CODE	Smart casual
E-LEARNING	<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 May 2024 on the EUROSPINE Learning Management System (LMS). This component must be completed before the live session.</p>
MODULE COMPLETION	<p>A module is only deemed as complete when participants have met ALL of the following conditions:</p> <ul style="list-style-type: none"> • 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 (!)	<ul style="list-style-type: none"> • 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!

PART 1 - E-Learning Programme

(available from May 2025)

Time/Duration	Topic	Faculty
Cervical & Lumbar		
00:18	Epidemiology, natural history, and imaging of radicular pain	Stavros Stavridis
00:16	Effective non-surgical interventions for radicular pain	Lukas Panzenböck
00:11	Surgery for radicular pain in the lumbar spine	Raluca Reitmeir
00:21	Surgery for radicular pain in the cervical spine	Triantafyllos Bouras
00:20	Knowledge check questions	
Cervical & Thoracic Myelopathy		
00:13	Presentation, causes, and natural history of myelopathy	Raluca Reitmeir

00:10	Imaging myelopathy: techniques and prognostic indicators	Fabio Pozzi
00:13	Clinical and surgical decision making in cervical myelopathy	Fabio Pozzi
00:08	Clinical and surgical decision making in thoracic myelopathy	Fabio Pozzi
00:20	Knowledge check questions	
Lumbar Spinal Stenosis & Degenerative Spondylolisthesis		
00:12	Presentation, natural history, and non-surgical treatment of spinal stenosis	Wouter Moojen
00:15	Imaging of spinal stenosis and degenerative spondylolisthesis	Lukas Panzenböck
00:16	Surgical treatment of lumbar stenosis	Stavros Stavridis
00:11	Surgical treatment of degenerative spondylolisthesis	Christian Hellum
00:20	Knowledge check questions	
Spondylolysis & Low-Grade Isthmic Spondylolisthesis, Axial Back Pain, Degenerative Deformity		
00:12	Spondylolysis and low-grade isthmic spondylolisthesis	Stavros Stavridis
00:12	Natural history, obstacles to recovery and non-surgical treatment of axial pain	Wouter Moojen
00:14	How to investigate a patient with axial pain	Lukas Panzenböck
00:14	Surgical treatment for axial back pain	Christian Hellum
00:21	Degenerative deformity of the lumbar spine	Triantafyllos Bouras
00:20	Knowledge check questions	

PART 2 - Live Session Programme

Group 1 - IRCAD Hirsch	
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 Skills Lab workshop (sign-in, changing, going to assigned tables etc)
08:00–12:30 (incl. 1x30 min. break around 10:00-10:30)	Skills Lab Workshop 1

Group 2 – IRCAD Hirsch	
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 Skills Lab workshop (sign-in, changing, going to assigned tables etc)
14:00–18:30 (incl. 1x30 min. break around 16:00-16:30)	Skills Lab Workshop 2

12:30	End Group 1	18:30	End Group 2
--------------	--------------------	--------------	--------------------

Case Based Discussions		
Topics Group 1 and 2	Case Presenter	Expert Opinion
Recurrent lumbar disc herniation with radicular pain	Panzenböck	Reitmeir
3 level lumbar spinal stenosis with minor slip	Stavridis	Panzenbock
2-level cervical radicular pain	Reitmeir	Stavridis
Low back pain	Pozzi	Bouras
Cervical myelopathy with multilevel pathology	Moojen	Pozzi
Degenerative deformity and root pain	Bouras	Hellum

Skills Lab Workshop Group 1		
Topic	Support	Faculty
Minimally invasive spine surgery	Realists	Ulloa
Minimally invasive spine surgery – endoscopy	UpSurgeOn	Hassel
Minimally invasive spine surgery – endoscopy	Realists	Yorukoglu
DLIF	Realists	Bobinski
LLIF	Cadaver specimen	Germann
Cervical laminoplasty with piezosurgery	Realists	Dyab
Cervical laminoplasty with drills	UpSurgeon	Klezi
Total disc replacement	Realists	Ryang
Thoracic pedicle screw fixation and hybrid solutions	Cadaver specimen	Vetter & Tomé

Skills Lab Workshop Group 2		
Topic	Support	Faculty
Minimally invasive spine surgery	Realists	Panzenböck
Minimally invasive spine surgery - endoscopy	UpSurgeOn	Hassel
Minimally invasive spine surgery - endoscopy	Realists	Yorukoglu
DLIF	Realists	Hellum
LLIF	Cadaver specimen	Germann
Cervical laminoplasty with piezosurgery	Realists	Pozzi
Cervical laminoplasty with drills	UpSurgeon	Moojen

Total disc replacement	Realists	Dyab & Bouras
Thoracic pedicle screw fixation and hybrid solutions	Cadaver specimen	Stavridis
END OF LIVE SESSION		

PART 3 - Virtual Live Session

Bring Your Own Case (BYOC)

02 September 2025 18:00 – 19:30 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 standard epidemiological terms to define and outline the prevalence of radicular pain
- Understand the natural history of radicular pain
- Identify the contributory factors
- Diagnose the 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 three 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 standard 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 the regression of symptoms from cervical disc herniation.
- Select an 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 the 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
- Recognise 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 assessing 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
- Recognise 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 catastrophising
- Differentiate between acute and chronic back pain
- Evaluate options for non-surgical management of back pain
- Summarise current evidence about operative and non-operative management

How to Investigate a Patient with Axial Pain

- Understand the role of clinical history and physical examination in assessing patients with axial pain.
- Decide on 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 an 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 the 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 the 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 the lateral approach to the lumbar spine
- Perform a minimally invasive lateral approach to the discs L2-L3, L3-L4, L4-L5
- Identify key structures and discuss risks related to local vascular neuroanatomy
- Approach the disc using neuromonitoring and the 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 an 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 the 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 a virtual live session of Bring Your Own Case (BYOC). BYOC is a case-based learning session that draws on participants' own practice or experience. Before the virtual live session, participants will be asked to submit a case on the module topic.

The cases are ideally the participants' own 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 at least been aware of the case.

The cases will be shared with the assigned faculty preceptors, who will process them and determine the lineup and order of discussion. Some cases may be grouped with those 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 them to their case and other cases presented
- Identify dilemmas and issues with their case and other cases presented
- Raise points and questions on their case and other cases presented
- Defend their positions regarding their case and the 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 for their 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 Stabilisation. 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.