EDUCATION EUROSPINE

EduWeek 2025 4

Trauma

General Information

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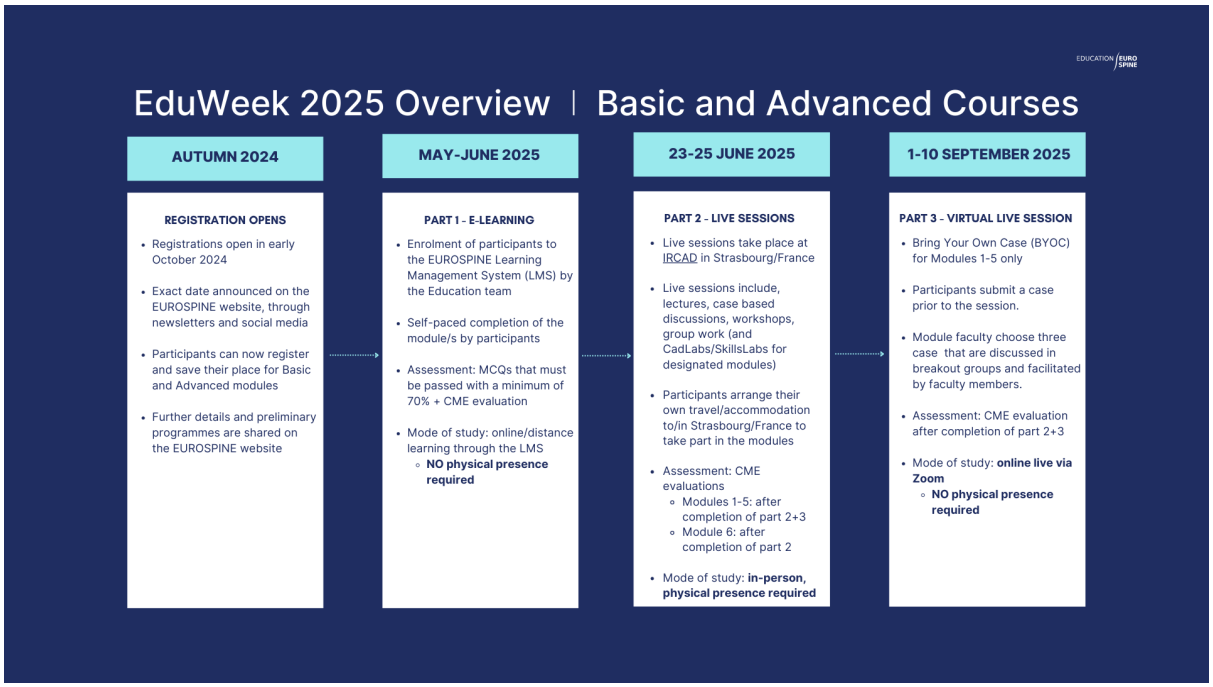

Quick Facts

DATES & TIMES	**Live session** Group 1: 24 June 2025 (13:50-18:30 CEST) Group 2: 25 June 2025 (13:50-18:30 CEST) **Virtual live session** Group 1 and 2: 04 September 2025 (18:00-19:30 CEST)
LIVE SESSION VENUE	IRCAD, 1 Place de l'Hôpital, 67000 Strasbourg, FRANCE
MAX. ATTENDEES	40 delegates (per group)
REGISTRATON FEES	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, the mandatory 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!

PART 1 - E-learning Programme

(available from May 2025)

Time/ Duration	Topic
Trauma of C-spine, TL-spine & Sacrum	
00:19	Imaging of cervical trauma
00:29	Trauma of CO-C2: Classification and management
00:10	Lower cervical spine injuries
00:19	Imaging of thoracic/thoracolumbar trauma
00:14	Classification and management of TL trauma
00:13	Sacral fractures: classification and management
00:20	Knowledge check questions
Post-Traumatic Kyphosis, Metabolic Spine Diseases, Paediatric Trauma & Spinal Cord Injury	
00:38	Trauma of spine with ankylosing spondylitis: features & management
00:16	Osteoporotic fractures: diagnosis and management
00:14	Paediatric spinal fractures
00:13	Prevention and management of post-traumatic kyphosis
00:13	Spinal shock and incomplete spinal cord injury syndromes
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
18:30	**End Group 1**

Group 2 25 June 2025	
13:50–16:00	Cases
16:00–16:15	Coffee break
16:15–18:30	Cases
18:30	**End Group 2**

Case Based Discussions		
Introduction	Yu-Mi Ryang & Zdenek Klezl	
Topic List Group 1 and 2	**Presenter**	**Expert opinion**
Subaxial C-Spine Fracture		
Ankylosing spondylitis Fracture		
Multilevel T-L Fractures		
Post Traumatic Kyphosis		
Osteoporotic Vertebral Compression Fracture (OVCF)		
Lumbopelvic instability		
END OF LIVE SESSION		

PART 3 - Virtual Live Session

Bring Your Own Case (BYOC)

04 September 2025 18:00 – 19:30 CEST	
18:00-18:05	Introduction
18:05-18:25	Breakout session 1
18:25-18:30	Discussion 1
18:30-18:50	Breakout session 2
18:50-18:55	Discussion 2
18:55-19:00	Break
19:00-19:20	Breakout 3
19:20-19:25	Discussion 3
19:25-19:30	Wrap-up and conclusion
END OF MODULE	

Learning Outcomes

- Select and interpret appropriate x-ray, computed tomography scan (CT) and magnetic resonance imaging (MRI) in spinal trauma
- Classify fractures of cervical vertebrae (C0-C2), subaxial cervical spine (C-spine), thoracolumbar spine (TL-spine) and sacrum
- Compare surgical and conservative treatment methods at different levels, including C0-C2, subaxial C-spine, TL-spine, and sacrum
- Define special features of conditions including ankylosing spondylitis (AS), osteoporosis and trauma of the immature spine
- Plan how to prevent complications in spinal trauma
- Describe characteristics of spinal shock and spinal cord injury syndromes

Trauma Of C-Spine, Tl-Spine & Sacrum

Imaging of Cervical Trauma

- Select appropriate imaging for suspected cervical spinal injury
- Evaluate options for x-ray views
- Select CT and/or MRI as appropriate
- Differentiate between requirements following major and minor cervical spine trauma

Trauma of C0-C2: Classification & Management

- Define the role of ligaments in cervical spine stability
- Classify and relate to treatment
    - Occipital condyle fractures
    - Occipito-cervical dislocation
    - Occipito-atlantal dislocation
    - Axial atlanto-axial instability
    - Atlas (C1) fracture
    - Axis (C2) fracture
    - Traumatic spondylolisthesis C2

Imaging of Thoracic/Thoracolumbar Trauma

- Use the AO classification
- Select appropriate imaging for major and minor trauma
- Assess x-ray images
- Define the indications of CT and MRI as appropriate
- Identify specific conditions with compromised spinal function

Classification and Management of TL Trauma

- Recognise the signs and symptoms of TL spine trauma
- Differentiate Denis, AO and Thoraco-Lumbar Injury Classification and Severity Score (TLICS) classifications
- Explain the role of Posterior Ligamentous Complex (PLC) injuries for burst fractures
- Evaluate surgical techniques in:
    - Anterior surgery including MIS techniques
    - Posterior surgery including MIS techniques

Sacral Fractures: Classification & Management

- Describe the relevant anatomy
- Differentiate sacral fracture types
- Use the AO classification
- Recognize signs and symptoms of sacral fractures
- Compare surgical vs conservative treatment
- Evaluate surgical options

Post-Traumatic Kyphosis, Metabolic Spine Diseases, Paediatric Trauma & Spinal Cord Injury

Trauma of Spine with Ankylosing Spondylitis (AS): Features & Management

- Explain the aetiology of AS
- Define the role of the spine surgeon in AS
- Formulate a surgical management plan for AS fractures
- Anticipate difficulties in this patient population
- Explain what kind of imaging is mandatory and why

Osteoporotic Fractures: Diagnosis & Management

- Define osteoporosis
- Describe medical management of osteoporosis
- Summarize the diagnosis of osteoporotic fractures
- Use the AOSpine osteoporotic fracture classification
- Evaluate surgical options
- Outline the indications for vertebral augmentation procedures
- Outline indications for spinal instrumentation±Vertebral Body Replacement (VBR)

Paediatric Spinal Trauma: Features & Management

- Outline features of the immature cervical and thoracolumbar spine
- Define Spinal cord injury without radiographic abnormality (SCIWORA)/ Cervicothoracic Spinal Cord Injury Without Radiographic Evidence of Trauma (SCIWORET)
- Explain mechanism of:
    - C-spine injury
    - Lumbar apophyseal injuries
- Plan appropriate investigations and management of injuries

Prevention and Management of Post-traumatic Kyphosis

- Discuss the reasons of post traumatic kyphosis
- Formulate therapeutic goals
- Explain how to restore sagittal balance
- Evaluate surgical options
- Justify a multidisciplinary team approach

Spinal Shock and Incomplete SCI Syndromes

- Explain spinal shock and its pathomechanism
- Define the different types of incomplete spinal cord injury
- Classify SCI by using the ASIA impairment scale and explain its clinical and surgical relevance
- Describe the clinical symptoms and pathomechanism of Central Cord Syndrome
- Discuss the importance of timing of surgery
- Explain why there is no role for methylprednisolone in SCI (NASCIS I-III)

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 IV Basic Module 4: Spinal Fractures. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach. Switzerland: Springer.

- M. Scholz and F. Kandziora. (2019). Epidemiology & Classification. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 223-232). Switzerland: Springer.
- P. Schleichler and F. Kandziora. (2019). Pre-Hospital Management, Physical Examination & Polytrauma Management. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 233-242). Switzerland: Springer.
- S. Krieg. (2019). Spinal Cord Injury. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 243-253). Switzerland: Springer.
- Y. Ryang. (2019). Upper Cervical Spine Trauma. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 253-268). Switzerland: Springer.
- R. Maduri and J. Duff. (2019). Subaxial Cervical Trauma. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 269-274). Switzerland: Springer.
- E. Kiter and N. Ok. (2019). Management Criteria for Thoracic, Thoracolumbar and Lumbar Fractures. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 275-280). Switzerland: Springer.

- Y-P. Charles. (2019). Posterior Surgical Management of Thoracic and Lumbar Fractures. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 281-288). Switzerland: Springer.
- J. Castein and F. Kandziora. (2019). Anterior Surgical Management of Thoracic and Lumbar Fractures. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 289-298). Switzerland: Springer.
- U. Yildiz and F. Kandziora. (2019). Sacral Fractures. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 299-308). Switzerland: Springer.
- M. Wostrack and B. Meyer (2019). Spine Injuries in the Elderly. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 309-318). Switzerland: Springer.
- D. Rothenfluh and D. Kieser. (2019). Spinal Trauma in Patients with Ankylosing Spinal Conditions. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 319-325). Switzerland: Springer