

EduWeek 2025

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**Spinal
Deformities**

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

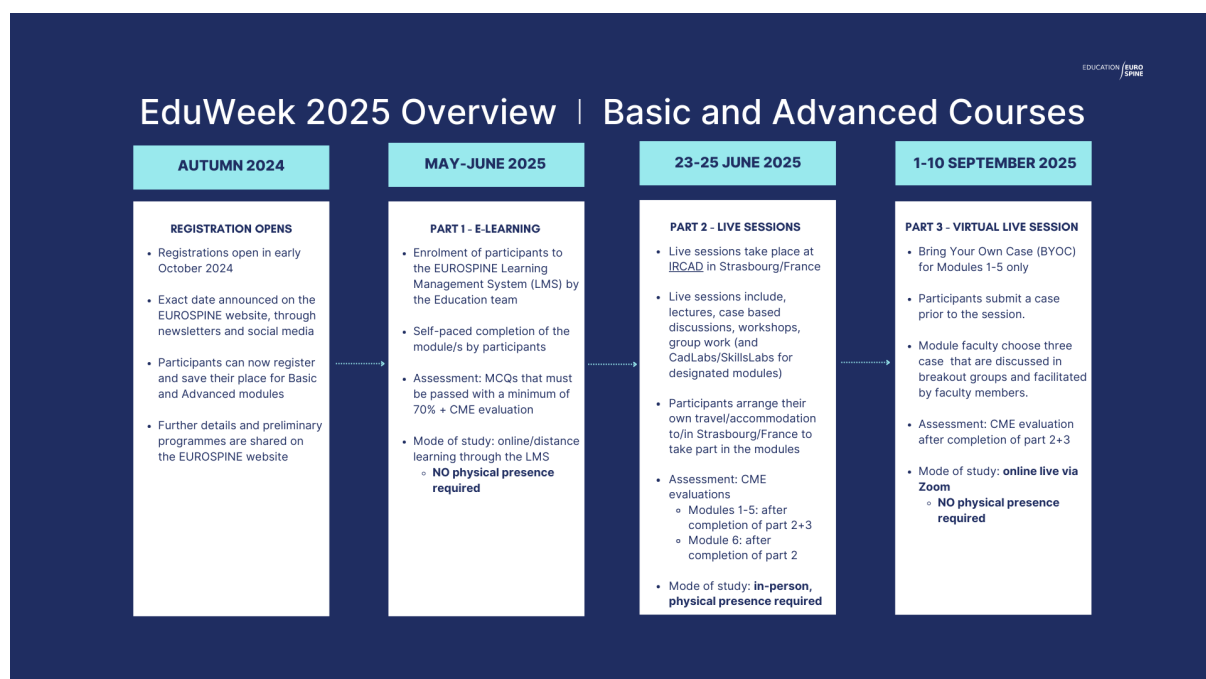
Oriana Pivetta
 E: pivetta@eurospine.org

Module Chair

Ahmet Alanay, Turkey
 Frank Kleinstück, Switzerland

Module Faculty

Yann-Philippe Charles, France
 Susana Nuñez-Pereira, Spain
 Ahmed Shawky, Germany



Quick Facts

DATES & TIMES	<p>Live session Group 1: 23 June 2025 (13:00-17:15 CEST) Group 2: 24 June 2025 (08:00-12:15 CEST)</p> <p>Virtual live session Group 1 and 2: 03 September 2025 (18:00-19:30 CEST)</p>
LIVE SESSION VENUE	IRCAD, 1 Place de l'Hôpital, 67000 Strasbourg, FRANCE
MAX. ATTENDEES	40 delegates (per group)
REGISTRATION 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	<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, the mandatory self-paced e-learning component will be available from May 2024 on the EUROSPINE Learning Management System (LMS). <u>This component must be completed before the live session.</u></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
Principles of Spinal Deformity & Surgical Treatment	
00:19	Spinal alignment and balance
00:12	Casting, bracing and role of rehabilitation
00:19	Preoperative assessment and positioning
00:21	Intraoperative monitoring
00:25	Blood saving in spinal deformity surgery
00:20	Knowledge check questions
Adolescent Idiopathic Scoliosis	
00:13	Pathogenesis and natural history of Adolescent Idiopathic Scoliosis (AIS)
00:08	AIS: Classification and surgical indications
00:08	Selection of AIS fusion levels
00:14	Surgical strategy: Posterior approach
00:14	Surgical strategy: Anterior approach
00:20	Knowledge check questions
Scoliosis & Kyphosis	
00:12	Neuromuscular scoliosis
00:39	Congenital spinal deformities
00:40	Hyperkyphosis (congenital, Scheuermann, ankylosing spondylitis)
00:09	Surgical strategy for correcting hyperkyphosis
00:20	Knowledge check questions
Spondylolisthesis	
00:20	Spondylolisthesis: Pathogenesis and classification
00:28	Spondylolysis and low-grade olisthesis
00:07	High-grade spondylolisthesis
00:20	Knowledge check questions
Adult Spinal Deformity	
00:13	From degenerative to adult deformity
00:21	Assessment of Adult Deformity Patients
00:15	Adult deformity planning of surgical correction
00:17	Spinal osteotomies
00:31	Anterior-posterior techniques to treat sagittal balance disorders
00:20	Knowledge check questions

PART 2 - Live Session Programme

Group 1 23 June 2025	
13:00–15:10	Cases
15:10–15:25	Coffee break
15:25–17:15	Cases
17:15	End Group 1

Group 2 24 June 2025	
08:00–10:10	Cases
10:10–10:25	Coffee break
10:25–12:15	Cases
12:15	End Group 2

Topic List Group 1 and 2	Presenter (Faculty to be assigned)
Introduction	
Adolescent idiopathic scoliosis	
Early onset scoliosis	
High-grade spondylolisthesis	
Scheuermann's kyphosis	
Adult degenerative deformity	
END OF LIVE SESSION	

PART 3 - Virtual Live Session

Bring Your Own Case (BYOC)

03 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

Principles of Spinal Deformity & Surgical Treatment

Spinal Alignment and Balance

- Goals of surgery in the spinal deformity continuum
- Understand the concepts of alignment versus balance
- Know key spino-pelvic parameters and their limitations
- Understand the concept of spinal harmony
- Know compensation mechanisms

Casting, Bracing and the Role of Rehabilitation

- Justify the role of casting today
- Explain the pros and cons of different types of brace treatment
- Formulate principles of rehabilitation for patients with spine deformity, both paediatric and adult
- Define the role of halo traction as definitive or interim treatment

Preoperative Assessment and Positioning

- Record a comprehensive preoperative assessment
- Consider special issues including pulmonary, cardiac, haematological, nutritional, and metabolic
- Position patients safely
- Explain the rationale to other team members
- Compare the purpose of prone, lateral, and supine positions

Intraoperative Monitoring

- Select appropriate types of monitoring
- Differentiate between SEP and MEP
- Perform a safe and reliable wake up test
- Recognise when a wake-up test is required
- Respond appropriately when monitoring indicates intervention required

Blood Saving

- Anticipate the factors affecting blood loss
- Recognize trigger points for transfusion
- Minimise the risks of homologous transfusion
- Outline the role of erythropoietin
- Compare the pros and cons of autologous transfusion, haemodilution, hypotensive anaesthesia, anti-fibrinolytic agents, intraoperative blood salvage

Adolescent Idiopathic Scoliosis (AIS)

Pathogenesis and Natural History Of AIS

- Know concepts of development of AIS and subsequent implications for surgical treatment
- Describe the natural history of AIS

Classification and Surgical Indications

- Know the pertinent classification systems and their limitations

- Understand and formulate surgical indications
- Goals of surgery for AIS

Selection of Fusion Levels

- Use classification to determine the end limits of fusion (Lenke)
- Understand factors which may determine fusion levels such as curve flexibility, adding on etc.
- Define the lower and upper limit of instrumentation

Surgical Strategy: Posterior Approach

- Formulate principles of surgical correction of AIS
- Understand the role of the sagittal plane in AIS and for surgical correction
- Evaluate strategic surgical options
- Recognise indications for a posterior or combined approach

Surgical Strategy: Anterior Approach

- Differentiate between anterior release, anterior fusion, and anterior instrumentation
- Select appropriate approach for procedure
- Recognise indications for anterior approach
 - anterior instrumentation

Scoliosis and Kyphosis

Neuromuscular Scoliosis

- Describe the aetiology and prognostic factors associated with neuromuscular scoliosis
- Identify factors indicating progression or risk to neurological structures
- Evaluate management options
- Assess associated pulmonary and cardiac problems

Congenital Spinal Deformities (Including Growing Rods)

- Relate the stages of development to deformities of the spinal cord
- Select appropriate investigations
- Evaluate treatment options

Hyperkyphosis (Congenital, Scheuermann, Ankylosing Spondylitis...)

- Differentiate between the aetiology and prognostic factors associated with regular and angular kyphosis
- Evaluate management options

Correcting Hyperkyphosis

- Review the spinal osteotomy options
- Explain how to correct Scheuermann kyphosis versus congenital kyphosis

Spondylolisthesis

Spondylolisthesis: Pathogenesis and Classification

- Describe the pathogenesis and causes of developmental spondylolisthesis
- Differentiate between high- and low-grade spondylolisthesis
- Know current classification systems

Spondylolysis, Low-Grade Olisthesis

- Understand patho-anatomic features
- Know surgical indications
- Select appropriate surgical technique

High-Grade Spondylolisthesis

- Describe the patho-anatomy of high-grade spondylolisthesis
- Differentiate between balance and unbalanced olisthesis
- Know different surgical techniques
- Understand the pros and cons of reduction versus in situ fusion

Adult Spinal Deformity

From the Degenerative Spine Deformity

- Evaluate the lumbar spine in the context of spinal deformity
- Classify the continuum from the degenerative spine to deformity

Adult Idiopathic and Degenerative Deformities

- Identify common problems associated with adult deformity
- Differentiate between idiopathic and degenerative (de novo) deformity
- Use spino-pelvic parameters to assess degenerative deformities
- Evaluate operative and non-operative options for different age groups
- Consider comorbidities associated with age
- Define surgical indications
- Assess patient expectations

Adult Deformity Planning of Surgical Correction

- Formulate principles of surgical correction
- Plan surgical correction of adult spinal deformity
- Know current software planning tools
- Evaluate the appropriate techniques

Spinal Osteotomies

- Justify the aim of osteotomy
- Differentiate between the different types of osteotomies (focus on posterior column and pedicle subtraction osteotomies)
- Technique of spinal osteotomies
- Outcomes and complications of spinal osteotomies

Anterior-Posterior Techniques to Treat Sagittal Balance Disorders

- Recognise indications for an anterior/lateral or combined with posterior approach
- Describe the amount of correction that can be achieved with each technique
- Know outcomes and complications of the different techniques/approach

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 III Basic Module 3: Deformity. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach. Switzerland: Springer.

- M. Balsano and S. Negri. (2019). Natural Course and Classification of Idiopathic Scoliosis. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 141-148). Switzerland: Springer.
- M. Balsano and S. Negri. (2019). Diagnosis and Conservative Treatment of Adolescent Idiopathic Scoliosis: Case Presentation. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 149-152). Switzerland: Springer.
- U. Liljenqvist. (2019). Idiopathic Scoliosis: Operative Treatment. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 153-158). Switzerland: Springer.
- A. Senkoylu and E. Acaroglu. (2019). A Congenital Scoliosis Case Characterized with Contralateral Hemivertebrae. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 159-164). Switzerland: Springer.
- S. Nuñez-Pereira and F. Pellisé. (2019). Delayed Neurological Deficit and Surgical Site Infection After Pedicle Subtraction Osteotomy in a Revision Case. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 165-172). Switzerland: Springer.

- D. Jeszenszky and M. Loibl. (2019). Operative Treatment of High-Grade Spondylolisthesis. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 173-184). Switzerland: Springer.
- A. Toquart and C. Barrey. (2019). Parameters of Spino-Pelvic Balance, Aetiology and Pathogenesis of Disturbed Spino-Pelvic Balance. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 185-196). Switzerland: Springer.
- M. Arabmotlagh and M. Rauschmann. (2019). Diagnosis, Classification and General Treatment Options for Hyperkyphosis. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 197-202). Switzerland: Springer.
- M. Arabmotlagh and M. Rauschmann. (2019). Scheuermann Kyphosis and Ankylosing Spondylitis. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 203-210). Switzerland: Springer.
- S. Haddad, A. Matamalas, and F. Pellisé. (2019). Surgical Correction and Special Features in Traumatic and Congenital Kyphotic Deformities. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 211-221). Switzerland: Springer.