

EDUCATION **EURO  
SPINE**

EUROSPINE Diploma in Interprofessional Spine Care

# **EDISC COURSE 2024**

**Module 6: Spinal deformities - Scoliosis  
during growth & other deformities across  
the life course**

## General Information

EUROSPINE, the Spine Society of Europe  
c/o Pfister Treuhand AG  
Bankstrasse 4, 8610 Uster-Zürich, Switzerland  
W: [www.eurospine.org](http://www.eurospine.org)

### **Chair of Education Committee**

Paulo Pereira, MD PhD

### **Chair, EDISC Committee**

Pierre Côté, DC PhD

### **Director of Education and Research**

Julie-Lyn Noël

E: [noel@eurospine.org](mailto:noel@eurospine.org)

### **Education and Research Manager**

Angelika Salmen

E: [salmen@eurospine.org](mailto:salmen@eurospine.org)

### **Module Chair**

Fabio Zaina, Physiatrist, IT

### **Module Faculty**

Alessandra Curti, Radiologist, IT

Elisabetta D'Agata, Psychologist, IT

Sabrina Donzelli, Physiatrist, IT

Nikos Karavidas, Physiotherapist, GR

Antonia Matamalas, Spine Surgeon, ES

Everard Munting, Spine Surgeon, BE

## Quick Facts

<b>LIVE SESSION DATE &amp; TIME</b>	08 October 2024 from 13:45 – 16:45 CEST 11 October 2024 from 13:45 – 17:15 CEST 15 October 2024 from 13:45 – 17:00 CEST 18 October 2024 from 13:45 – 17:15 CEST CEST = Central European Summer Time
<b>VENUE</b>	Virtual (live)
<b>MAX. ATTENDEES</b>	40 participants
<b>REGISTRATION FEE</b>	EUROSPINE Member: €200 Non-member: €300
<b>CME CREDITS</b>	One CME certificate is awarded for this module.  Accreditation by the European Board for Accreditation of Continuing Education for Health Professionals (EBAC) is pending.
<b>LANGUAGE</b>	English
<b>DRESS CODE</b>	Smart casual. You will be interacting with fellow participants on video and will be seen on camera.
<b>E-LEARNING</b>	<ul style="list-style-type: none"> <li>• Preparatory readings and videos will be available and participants are encouraged to engage with the material before the live sessions.</li> <li>• Access will be provided 4 weeks before the first live session.</li> </ul>
<b>MODULE COMPLETION</b>	Module completion is achieved when ALL the following are met: <ul style="list-style-type: none"> <li>• Attendance of ≥ 90% of the live session time <b>AND</b></li> <li>• Completion of the CME evaluation and feedback surveys</li> </ul>
<b>TARGET AUDIENCE</b>	Spine care professionals (non-surgical and surgical): primary care physicians and surgeons involved in spine care, physiotherapists, chiropractors, osteopaths, occupational therapists, clinical psychologists, nursing practitioners, naprapaths and others who are graduated as clinicians from a recognized institution (i.e. professional school or university).
<b>IMPORTANT (!)</b>	<ul style="list-style-type: none"> <li>• A computer (Mac/PC) or tablet (Android/Mac) and stable internet connection are required to access the e-learning content and virtual live sessions. <u>The course evaluation is mandatory to obtain the CME certificate.</u></li> <li>• This module has 4 virtual live sessions and attendance is mandatory.</li> <li>• Please log in to the Zoom session 10 minutes before live session start</li> </ul>

## E-Learning Programme

Attendees are encouraged to engage with any preparatory material before a live session and actively participate in discussions and group work during live sessions.

Time Duration	Topic	Faculty
00:30	Scoliosis and spinal deformities: clinical evaluation	Fabio Zaina
00:30	Radiological evaluation	Alberto Zerbi
00:30	Treatment Guidelines	Sabrina Donzelli
00:30	Bracing approach to scoliosis	Fabio Zaina
00:30	Adult spinal deformities: overview of the problem	Fabio Zaina
00:30	Surgical approach to spinal deformities	Everard Munting

## Virtual Live Sessions Programme

DAY 1: TUESDAY, 8 OCTOBER 2024, 13:45-16:45 CEST

Time	Topic	Faculty
13:45 – 14:00	Welcome and introduction	Fabio Zaina
14:00 – 14:30	Radiological Evaluation: practical exercises	Alberto Zerbi
14:30 – 15:00	QoL and psychological issues in scoliosis treatment	Elisabetta D'Agata
<b>Break 15:00 – 15:15 (15 mins)</b>		
15:15 – 16:00	Clinical Protocols: idiopathic vs secondary scoliosis	Sabrina Donzelli
16:00 – 16:45	Exercise approach to scoliosis	Nikos Karavidas
16:45 – 17:00	Wrap up of day, questions/comments/ discussion	Fabio Zaina
<b>End of Day 1</b>		

**DAY 2: FRIDAY, 11 OCTOBER 2024, 13:45-17:15 CEST**

Time	Topic	Faculty
13:45 – 14:00	Welcome and introduction	Fabio Zaina
14:00 – 15:00	Scoliosis: clinical cases (group work with demonstration)	Fabio Zaina
15:00 – 15:45	Spinal pain during growth: general considerations and clinical cases	Sabrina Donzelli
<b>Break 15:45 – 16:00 (15 mins)</b>		
16:00 – 16:30	Radiological issues in children with spinal pain	Alessandra Curti
16:30 – 17:00	The psychological burden of spinal pain during growth	Elisabetta D'Agata
17:00 – 17:15	Wrap up of day, questions/comments/ discussion	Fabio Zaina
<b>End of Day 2</b>		

**DAY 3: TUESDAY, 15 OCTOBER 2024, 13:45-17:00 CEST**

Time	Topic	Faculty
13:45 – 14:00	Welcome and introduction	Fabio Zaina
14:00 – 15:00	Spinal pain during growth: general considerations and clinical cases	Antonia Matamalas
15:00 – 15:30	Exercises for spinal pain during growth: theory and practice	Nikos Karavidas
<b>Break 15:30 – 15:45 (15 mins)</b>		
15:45 – 16:15	Radiological issues in adults with spinal deformities	Alessandra Curti
16:15 – 16:45	Case-based discussions	Fabio Zaina
16:45 – 17:00	Wrap up of day, questions/comments/ discussion	Fabio Zaina
<b>End of Day 3</b>		

**DAY 4: FRIDAY, 18 OCTOBER 2024, 13:45-17:15 CEST**

<b>Time</b>	<b>Topic</b>	<b>Faculty</b>
13:45 – 14:00	Welcome and introduction	Fabio Zaina
14:00 – 15:00	Conservative treatment for spinal deformities during adulthood	Sabrina Donzelli
15:00 – 15:30	Psychological issues of spinal deformities during adulthood	Elisabetta D'Agata
<b>Break 15:30 – 15:45 (15 mins)</b>		
15:45 – 16:45	Case based discussion	Fabio Zaina
16:45 – 17:15	Wrap up, module conclusion	Fabio Zaina
<b>End of Module</b>		

## **Aims of the Module**

Acquire basic knowledge on the evaluation and management of spinal deformities during growth and throughout life time.

## **E-Learning**

The aim of the e-learning material is to provide learners with

- Basic knowledge of the current theories and the aetiology of primary scoliosis and secondary scoliosis.
- Basic knowledge of the risks related to scoliosis during growth
- Basic knowledge of how to measure radiographies, when to request further imaging exams
- Basic knowledge of the current scientific literature of the conservative treatment of scoliosis

### **1 Clinical Evaluation**

1.1 Evaluate a patient with scoliosis, define diagnosis and prognosis

1.2 Measure radiographs, and recognise when to request further imaging examinations

### **2 Patient Management**

2.1 Manage expectations from patients and a patient's family

2.2 Advise on the impact of treatment on activities of daily living

2.3 Understand principles of cognitive behavioural approach and psychological-informed practice

2.4 Recognise the role of a case-manager

2.5 Recognise when to refer and to whom

2.6 To understand the role of each member in an interprofessional team.

### **3 Conservative Treatments**

3.1 List different kinds of braces available and their features and indications

3.2 Understand the basic principles of Physiotherapy Scoliosis Specific Exercises (PSSE)

### **4 Spinal Pain During Growth**

4.1 Understand how children and adolescents with spinal pain differ from adults

4.2 Describe specific diagnosis and specific approaches to the most common causes of spinal pain during growth and their limits

4.4 Describe psychosocial issues of spinal pain during growth.

4.5 Reassure and manage families and young patients' expectations

4.6 Demonstrate how to manage cases with multiple spinal problem choosing the right tools

### **5 Adult Spinal Deformities**

5.1 Describe the natural history of the most common spinal deformities.

5.2 Apply common conservative approaches for adults with spinal deformities and when to refer for surgery.

## **Learning Outcomes**

This module aims to enable learners to:

1. Diagnose spinal deformities
2. Define the prognosis of spinal deformities
3. Plan and manage a conservative and rehabilitation treatment for spinal deformities.
4. Recognise the limits and contraindications for a conservative treatment for spinal deformities

## **Instructional Methods**

The following instructional methods will be employed in the teaching of this module:

- Pre-learning activities: Preparatory readings;
- Classroom teaching: Interactive lectures that extend from theory to case-studies;
- Workshops: Facilitated group discussions and practical workshops.

All instructional methods should require active participation, consistent with the range of motivations for pursuing the EDISC programme. There should also be a strong emphasis on self-directed learning and pre-reading.

## **Educational Activities**

- Pre-learning activities: Preparatory readings.
  - Learners will be provided literature to read ahead of the meetings in the module
- Classroom teaching



- Each of the subjects mentioned above will have a short plenary introduction as a lecture given by one of the faculty members. The introduction will provide an overview of the theme based on the literature.
- Workshops: Facilitated group discussions and Case studies
  - Following each introduction the learners will be divided into workshop groups to discuss the translation of the theoretical learning into practice. Role-plays and examinations may be performed using case studies, videos, scans and other relevant learning material.
- E-learning methods: Online case studies
  - Participants will be required to go through online case studies.

## Assignment

For the completion of the module, participants will be required to complete the module feedback, which includes questions for self-reflection.

## CME Module Evaluation

In line with EBACs requirements for accredited activities, participants will be requested to complete a mandatory evaluation at the end of the module in the form of a short online survey. Responding to the survey is a condition in order for participants to obtain their CME certificates.

## List of Resources

### Mandatory Readings

- Di Felice F, Zaina F, Donzelli S, Negrini S, The Natural History of Idiopathic Scoliosis During Growth A Meta-Analysis, *American Journal of Physical Medicine & Rehabilitation* 2018;97:346–356.
- Zaina F, Atanasio S, Ferraro C, Fusco C, Negrini A, Romano M, Negrini S, Review of rehabilitation and orthopedic conservative approach to sagittal plane diseases during growth: hyperkyphosis, junctional kyphosis, and Scheuermann disease, *EUR J Phys Rehabil Med* 2009;45:595-603
- Negrini S, Minozzi S, Bettany-Saltikov J, Chockalingam N, Grivas TB, Kotwicki T, Maruyama T, Romano M, Zaina F, Braces for idiopathic scoliosis in adolescents (Review), *Cochrane Database of Systematic Reviews* 2015, Issue 6. Art. No.: CD006850. DOI: 10.1002/14651858.CD006850.pub3.

### Recommended Readings

- Balagué F, Pellisé F, Adolescent idiopathic scoliosis and back pain, *Scoliosis and Spinal Disorders* (2016) 11:27 DOI 10.1186/s13013-016-0086-7
- Weinstein S, Dolan L, Wright J, Dobbs M, Effects of Bracing in Adolescents with Idiopathic Scoliosis, *N Engl J Med* 2013. DOI: 10.1056/NEJMoa1307337



- Negrini S, Donzelli S, Aulisa A, Czaprowski D, Schreiber S, de Mauroy JC, Diers H, Grivas T, Knott P, Kotwicki T, Lebel A, Marti C, Maruyama T, O'Brien J, Price N, Parent E, Rigo M, Romano M, Stikeleather L, Wynne J, Fabio Zaina F, 2016 SOSORT guidelines: orthopaedic and rehabilitation treatment of idiopathic scoliosis during growth, *Scoliosis and Spinal Disorders* (2018) 13:3 DOI 10.1186/s13013-017-0145-8