

Spanish & Portuguese
Spine Societies

COURSE DIPLOMA
2026

Module 1

**Basic Comprehensive
Course**

Organized by:



SPPCV
SOCIEDADE
PORTUGUESA
DE PATOLOGIA
DA COLUNA
VERTEBRAL

GEER 
SPANISH SPINE SOCIETY

When:
29 // June // 2026

Where :
Virtual



Quick Facts

| | |
|--------------------------|--|
| When | 29 June 2026 |
| Where | Virtual |
| Maximum Attendees | 30 delegates |
| Registration Fee | SPPCV/ GEER Members : 300€ Non Members: 400€ |
| CME Credits | An application for accreditation has been submitted to the EACCME |
| Language | English |
| Dress | 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 virtual live session, the mandatory self-paced e-learning component will be available from 1 June 2026 on the SPPCV Moodle page. This component must be completed before the virtual live session. |
| Module Completion | A module is only deemed as complete when participants have met ALL of the following conditions: <ul style="list-style-type: none">• Passed the e-learning component with at least 70% AND• Attended the live session AND• Submitted the course evaluations for the e-learning and the live session component |

Important Note

- Completion of eLearning component is mandatory
- Attendance of the live session is mandatory

Target Audience

Senior trainees and trained surgeons, who are planning a career in spine surgery.

Learning Outcomes

Module 1

Basic Comprehensive Course

1. Evaluate a patient with low back pain (LBP) in a multidisciplinary approach
2. Discuss appropriate clinical and radiologic tests
3. Evaluate systemic causes of back pain as differential diagnosis (muscle pain, inflammatory diseases)
4. Discuss the role of psychosocial models and rehabilitation
5. Explain the impact of spinal disorders on the individual and society
6. Discuss the application and limitation of biomechanical lumbar spine in vitro and finite element models
7. Explain the principles of intervertebral disc biology and degeneration
8. Be aware of current molecular research on intervertebral disc degeneration

eLectures

Participants of Module 1 will be asked to build foundation knowledge for the module with the online pre-module work. Learning outcomes have been defined, so participants and faculty are clear about the standards expected. Module 1 will target multidisciplinary approaches in LBP, principles of spinal biomechanics and intervertebral disc biology. These topics may provide complementary knowledge around spine care, which might differ from clinical surgical practice.

Upon completion of the eLearning component, participants should be able to:

1. Clinical Examination

- Select appropriate clinical tests for a clinical situation
- Perform a safe and effective clinical examination
- Select appropriate communication skills with patients and their families

2. Imaging in low back pain

- Select appropriate radiologic exams for a clinical situation
- Discuss advantages and disadvantages of radiologic examination methods
- Be aware of radiation exposure when selecting an exam

3. Different perspectives on low back pain

- Discuss differential diagnosis of inflammatory spinal disorders
- Evaluate the role of muscle pain
- Discuss the role of non-surgical approaches (e.g., infiltration)

4. Low back pain: Rehabilitation and manual therapy

- Be aware of the principle of the bio-psycho-social model
- Discuss the principles of a rehabilitation program
- Select appropriate patients for manual therapy. Biomechanics in vitro models

5. Biomechanics in vitro models

- Outline loading in different positions of the spine
- Explain how loading changes with age and pathology
- Describe the basic principles of an in vitro experiment
- Discuss the interpretation and limitation for evaluation of biomaterials

6. Finite element (FE) models

- Discuss applications for FE models
- Explain setup, boundary conditions and validation of FE models
- Interpretation and value of FE studies



7. Biology of the lumbar intervertebral disc

- Outline principles of cellular and molecular biology of the nucleus
- Explain the role of nutrition and changes with age
- Discuss the role of genetics in disc degeneration
- Mechanical alteration of microstructures in the annulus

8. Cellular and molecular research

- Describe pre-clinical models for the intervertebral disc
- Outline principles of stem cell therapy for disc regeneration
- Explain the role of molecular research for disc regeneration

9. Epidemiology and economics

- Be aware of the impact of LBP on the society
- Explain outcome measures for quality of life and economy (QUALY)
- Discuss the impact of direct and indirect medical costs in LBP

10. Principles of clinical research

- How to design an appropriate clinical study and select classification criteria
- Discuss the use of study results for own clinical practice
- Define the role of registries

LIVE SESSION:

Case Discussion: Low back pain

- Use clinical information to formulate a diagnosis and treatment plan
- Recognising serious spine disorders: Rule out red flags
- Select appropriate clinical tests
- Perform a safe and effective clinical examination
- Discuss differential diagnosis and imaging studies findings
- Discuss of pain generators in low back pain
- Discuss the different treatment options in pain management, including conservative and surgical treatment

Module Chair

Pedro Santos Silva *PORTUGAL*

Course Faculty:

Ana Luís *PORTUGAL*

Bruno Santiago *PORTUGAL*

João Pinto Coelho *PORTUGAL*

Jorge Alves *PORTUGAL*

Marco Parente *PORTUGAL*

Mário Vaz *PORTUGAL*

Pedro Santos Silva *PORTUGAL*

Raquel Gonçalves *PORTUGAL*

Teresa Nunes *PORTUGAL*

Scientific Programme

Module 1 – Basic Comprehensive Course

| Time | Topic | Faculty |
|-----------------------------|--|--------------------------|
| - | - | - |
| E-LEARNING PROGRAMME | | |
| - | - | - |
| | Low Back Pain | |
| 00:15 | Clinical Examination | Bruno Santiago |
| 00:20 | Imaging in low back pain | Teresa Nunes |
| 00:25 | Different perspectives on low back pain | Jorge Alves |
| 00:20 | Low back pain: Rehabilitation and manual therapy | João Pinto Coelho |
| 00:20 | Knowledge check questions | |
| - | - | - |
| | Fundamentals & Clinical Research | |
| 00:15 | Biomechanic - In vitro models | Marco Parente, Mário Vaz |
| 00:15 | Finite element models | Marco Parente, Mário Vaz |
| 00:25 | Biology of the lumbar inter-vertebral disc | Raquel Gonçalves |
| 00:25 | Cellular and molecular research | Raquel Gonçalves |
| 00:15 | Epidemiology and economics | Jorge Alves |
| 00:25 | Principles of clinical research | Pedro Santos Silva |
| 00:20 | Knowledge check questions | |
| - | - | - |

Monday, 29 June 2026

LIVE SESSION PROGRAMME

| Time | Topic | Faculty |
|---|--|--|
| - | - | - |
| 09.00 | Case Based Discussion: Diagnostic and treatment options for back pain I | Pedro Santos Silva, Jorge Alves, Ana Luís |
| - | - | - |
| Coffee Break 20 mins. | | |
| - | - | - |
| 10.20 | Case Based Discussion: Diagnostic and treatment options for back pain II | Pedro Santos Silva, Jorge Alves, Ana Luís |
| - | - | - |
| - | - | - |
| 11:30 | End of Module 1 | - |
| - | - | - |
| Course Attendance is Mandatory | | |

Recommended Reading

Part I Basic Module 1:

Conservative Therapy

B. Meyer and M. Rauschmann (Eds.)

Spine Surgery A Case-Based Approach

Switzerland: Springer

- **E. Shiban and B. Meyer. (2019).**

Treatment for Acute, Subacute and Chronic Low Back Pain. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 3-8).

Switzerland: Springer.

- **M. Jägersberg and E. Tessitore. (2019).**

Indications for Emergency Surgical Treatment. B. Meyer and M. Rauschmann (Eds.), Spine Surgery A Case-Based Approach (pp. 9-15).

Switzerland: Springer.

Contacts

Course Organisation

SPPCV Sociedade Portuguesa de Patologia da Coluna Vertebral

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**Thank you
for your participation**

**Spanish & Portuguese
Spine Societies**

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