

TEACHER'S GUIDE SHEET

MODULE	BIOMECHANICS OF SPINE
DIDACTIC UNIT	D: INSTRUMENTED ANALYSIS OF THE SPINE D.6. In which cases and how can a biomechanical instrumented analysis of spine be useful?
TITLE OF ACTIVITY/CLASS	Clinical usefulness of biomechanical tests
OBJECTIVES	<ul style="list-style-type: none"> • To show different uses of biomechanical assessment techniques within the clinical setting to assess spinal pathologies. • To analyse through scientific studies the usefulness of the biomechanical assessment of the spine. • To highlight some aspects of interest in the broad area of assessing using biomechanical analysis tests.
DURATION	1h' OF CLASS MATERIAL IN TOTAL, including the PowerPoint presentation (about 30') and the class activity (about 30')
PREVIOUS KNOWLEDGE REQUIRED	It is advisable for the student to have at least read the theoretical document associated with the previous modules.
TECHNICAL REQUIREMENTS	PC with software for video and audio playback as well as for PowerPoint presentations. Appropriate projector and screen to show the contents to all the students during class.
RESOURCES NEEDED	Activity student in pdf. One physical copy per student.



DESCRIPTION OF THE CLASS/ACTIVITY

A PowerPoint will be used by the teacher to guide the class:

PART ONE:

The teacher will review the objectives of a functional biomechanical assessment and the techniques or tests that can be used to evaluate spinal pathologies.

The teacher can take advantage of the didactic content included in Autonomous and use it as an explanatory support in class. As an aid to the explanations, the teacher can ask questions for the students to think about these uses.

PART TWO: EXAMPLES OF CLINICAL CASES WITH PROGRESS MONITORING

The teacher will present some examples of clinical cases in which the final result of the biomechanical test facilitates the monitoring of the progress and decision-making.

PART THREE: CLASS ACTIVITY

The class activity involves reading and discussing a scientific work provided by the teacher or by the students themselves. For that, the teacher can choose to use any of the scientific papers contained within the autonomous work section or any other article in which the use of a biomechanical assessment in a clinical setting is discussed.

The objective of the class activity is for the students to evaluate the usefulness of biomechanical tests in different clinical settings.

This activity can be done individually or in groups. The recommended maximum number of students per group is 4-5 people. The teacher decides if all the groups work on the same paper, or each group works on a different paper.

In order to perform this activity, the teacher must verify that each student has a copy of the scientific paper on which they are going to work and the worksheet. For that, the teacher can choose to use any of the scientific papers contained within the autonomous work section or any other article in which the use of a biomechanical assessment in a clinical setting is discussed.

Activity:

The students must read the paper carefully.

Then, after reviewing the results of the paper, they must answer the questions that the teacher provides as a guide in the PowerPoint presentation or at the end of their working document (Activity class).

After discussing in groups for approximately 10', the teacher will moderate a discussion in which the students will provide the answers of each group and discuss them. At the end of the activity, the teacher will have collected a list with the uses of biomechanical assessment that the students have drawn from the discussed works, those provided by the students or any other idea that arises during the activity.

The information about the cases included in the autonomous document can help the teacher.

At the end, the teacher will answer the questions that the students may have.

TASKS TO BE DEVELOPED BY THE STUDENT OUTSIDE THE CLASS (if required)

It is not compulsory to perform any previous tasks, although the student can provide some scientific work about the biomechanical assessment of the spine using biomechanical techniques.

The teacher will assess the students through their motivation and participation in the discussion groups.

EVALUATION METHODOLOGY

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