

TEACHER'S GUIDE SHEET

MODULE	BIOMECHANICS OF SPINE
DIDACTIC UNIT	A: BIOMECHANICS OF THE NORMAL SPINE
TITLE OF ACTIVITY/CLASS	BIOMECHANICS OF THE NORMAL SPINE
OBJECTIVES	<ul style="list-style-type: none"> • To review the biomechanical differences in the cervical, dorsal and lumbar spine. • To learn the biomechanical functions of the spine in basic rest conditions. • To explain how the spine works during some of the basic functions of daily life. • To reinforce learning of contents through activities and tests
LENGTH	1h30' - PowerPoint presentation of the contents + Reinforcement activity
PREVIOUS KNOWLEDGE REQUIRED	In order to fully understand the concepts explained during class, the student should previously revise the anatomy of spine elements.
TECHNICAL NEEDS	PC with software for the power point presentation. Projector and screen to show contents appropriately to all the students during class. You can give the activity material to students online or print.
RESOURCES NEEDED	PowerPoint file of class material presentation and the reinforcement activity pdf file, print or online version. Each student needs one copy.



DESCRIPTION OF THE CLASS/ACTIVITY

Part 1: Teacher's theoretical explanation

The teacher's presentation will begin with the basic concepts of functionality of the spine and the movements associated with it. In addition, you must emphasize the concept of Functional Spine Unit (FSU).

The teacher will continue with the normal biomechanical functions of the spine, breaking down the explanation into: upper cervical spine, lower cervical spine, thoracic spine and its thoracic spinal motion segment, lumbar spine, sacral and coccygeal spinal motion segment.

After the above, the teacher will explain the function of the spine and its load in different resting positions, and in daily activities as important as weight-bearing or walking.

Finally, the teacher the teacher can conclude with the main ideas of the class.

Part 2: Practical activities for students

Students must remember key elements for spine biomechanics through images that they must fill in with the missing words.

TASKS TO BE DEVELOPED BY THE STUDENT IN CLASS

In order to fully understand the concepts explained during class, the student should afterward resolve the 'Reinforcement activity' pdf.

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

After the class and concept presentation, the students should revise the PDF with the contents of the didactic unit or the PowerPoint presentation (what the teacher prefer to provide).

EVALUATION METHODOLOGY

The teacher can use the evaluation method that she/he considers. The correct answers for the Reinforcement activity are at the end of the same document.

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