



Development of innovative training solutions in the field of functional evaluation aimed at updating of the curricula of health sciences schools



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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?

Self-Questionnaire

Self-questionnaire:

- Self-questionnaire to test the knowledge acquired.
- It will include 5 objective questions with 4 answer options.
- Mark in bold the correct answer.

Type of questions:

- **Drag and drop into text.** Students select missing words or phrases and add them to text by dragging boxes to the correct location. Items may be grouped and used more than once.
- **Drag and drop markers.** Students drop markers onto a selected area on a background image. Unlike the drag and drop onto image question type, there are no predefined areas on the underlying that are visible to the student.
- **Drag and drop onto image.** Students make selections by dragging text, images or both to predefined boxes on a background image. Items may be grouped.
- **Matching.** A list of sub-questions is provided, along with a list of answers. The respondent must “match” the correct answers with each question.
- **Multichoice.** With the Multichoice question type you can create single-answer and multiple-answer questions, include pictures, sound or the other media in the question and/or answer options and weight individual answers.
- **Select missing words.** Students select a missing word or phrase from a dropdown menu. Items may be grouped and used more than once.
- **True/False.** In response to a question (that may include an image), the respondent selects from two options: True or false.

Question 1

The following statements are correct except one. Mark the incorrect one:

- A The biomechanical assessment tests of the spine provide additional information on the person's state of health.
- B **The results of biomechanical analysis tests are necessary to make a diagnosis.**
- C Dynamometry has sometimes been shown to be useful in the biomechanical assessment of the spine.
- D In order to perform a biomechanical assessment, a strict measurement protocol must be applied.

Question 2

A biomechanical assessment of the spine makes it possible to:

- A Objectivize an improvement or worsening in the clinical process of the patient.
- B Quantify the results of a treatment at a functional level.
- C Provide objective information that can help the doctor make a decision.
- D **All of the above is correct.**

Question 3

With regard to the biomechanical tests, all the options are correct except one:

- A The biomechanical tests of the spine make it possible to monitor the progress or improvement during the recovery of the musculoskeletal system pathology that determined the injury.
- B They quantify the functional improvement or worsening in the patient's clinical process.
- C **Biomechanical tests always detect malingering.**
- D They determine the functional stabilisation of the injured person and, therefore, the possibility of starting a process for permanent disability.

Question 4

One of the biomechanical tests commonly used in spine assessment is:

- A Kinetic tests that analyze the speed of movement.
- B Radiographic tests used for diagnosis.
- C **Kinematic tests that analyse the characteristics of the movement.**
- D A and B are correct.

Question 5

When using biomechanical assessment tests to analyse the spine, the following statements must be taken into account, except one:

- A There are various types of tests that provide different information, depending on the measuring technique used and the protocol applied.
- B A biomechanical assessment test is not a substitute for a clinical examination in the assessment process of bodily harm.
- C They provide objective information in patients with subjective pain symptoms.
- D **No knowledge about biomechanics is required.**



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