

Student's full name:

MODULE BIOMECHANICS OF SPINE Didactic Unit B: Biomechanical alterations of the spine

Activity 1

Select missing words: Students select a missing word or concept from a dropdown menu. Items may be grouped and used more than once.

1) According to the Anderson and Montesano (1988) classification of fractures of the

occipital condyles,		fracture results from axial loading.
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Tipe I	Tipe II	Tipe III

2) With respect to the Atlantoocipital dislocation, the main mechanism of injury is the

force on the cervical spine.

Distraction

Compression

Flexion

3) The application of axial loading and flexion of the head causes a fracture of the Atlas

vertebra, specifically on the

Lateral mass

Anterior arch

Posterior arch

Posterior arch

- 4) The Atlantodental interval is the horizontal distance between the dens of the axis and
 - the , used in the diagnosis of injuries of the atlas and axis.

Lateral mass





Anterior arch





- 5) In odontoid fractures, the stability of the C1-C2 complex is altered by about 40%. However, when the odontoid injury involves the ______, stability increases and the injury may require surgery. Alar and transversal Flavum ligament Intertransverse ligament
- 6) Axial loading of the cervical spine with the neck in neutral position will cause a compression fracture or a fracture of the vertebral body.

Stable Burst Unstable

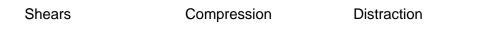
7) One type of injury to the lower cervical spine is the ______ fracture, and occur when a combination of flexion and axial compression forces acts on the spinal column simultaneously.

Teardrop Burst Jefferson

The kinematic sequence of the whiplash-associated disorder starts with flexural deformation of the neck and the lordosis

Changes to kyphosis Become straight Increase

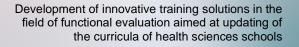
9) Seat-belt injury are typical lesions of the thoracolumbar junction as a result of a hyperflexion centered in said area that at the same time causes a force from the most posterior area of the vertebra.















10) When spinal fusion is required in the lumbar spine, the fused levels that most limit

extension and lateral flexion movements are

L1-L2/L2-L3

L2-L3/L3-L4

L4-L5/L5-S1

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