## **Supplemental Digital Content**

AO Spine Cervical Classification Validation Group Survey

# This part of the survey aims to assess the perceived severity of different types of subaxial fractures as described in the AOSpine subaxial classification system.

AOSpine Subaxial Injury Severity Score is based on simple morphological categories:



	Fracture or Injury Morphology
А	Compression
В	Tension Band
С	Translation

Each of the following injuries will be scored on a scale of 0 to100 in terms of their perceived severity, 0 being benign and 100 being most severe. Neurovascular injuries or polytrauma status will not be considered.

For more information on the fracture types, please download the AOSpine Subaxial Classification brochure which is available through the following link:

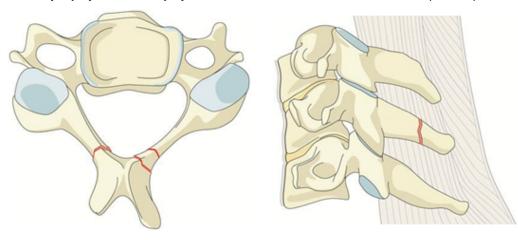
[Attachment: "aos\_A1poster\_SubaxialCS\_mar18.pdf"]



## **Type A: Compression Injuries**

A0 Minor, nonstructural fractures

No bony injury or minor injury such as an isolated lamina fracture or spinous process fracture.

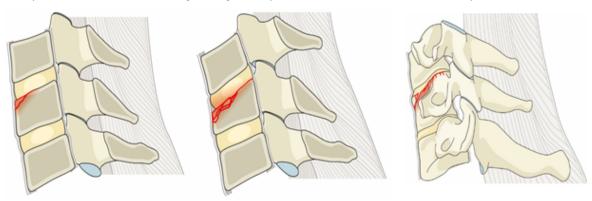


Please score this A0 fracture type on a scale of 0-100 in terms of their perceived severity (0=benign, 100=most severe).

(Injury Severity Score)

#### A1 Wedge-compression

Compression fracture involving a single endplate without involvement of the posterior wall of the vertebral body.

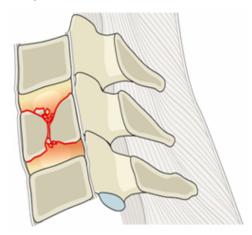


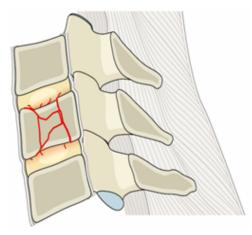
Please score this A1 fracture type on a scale of 0-100 in terms of their perceived severity (0=benign, 100=most severe).

(Injury Severity Score)

#### A2 Split

Coronal split or pincer fracture involving both endplates without involvement of the posterior wall of the vertebral body.







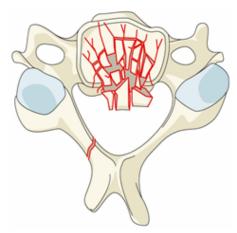
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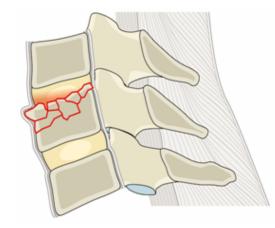
Please score this A2 fracture type on a scale of 0-100 in terms of their perceived severity (0=benign, 100=most severe).

(Injury Severity Score)

## A3 Incomplete burst

Burst fracture involving a single endplate with involvement of the posterior vertebral wall.



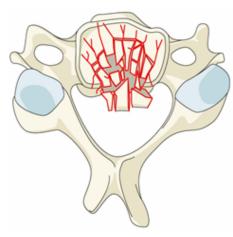


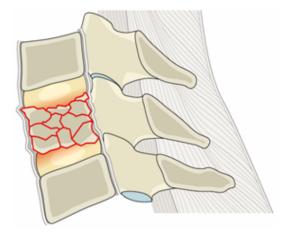
Please score this A3 fracture type on a scale of 0-100 in terms of their perceived severity (0=benign, 100=most severe).

(Injury Severity Score)

### A4 Complete burst

Burst fracture or sagittal split involving both endplates.





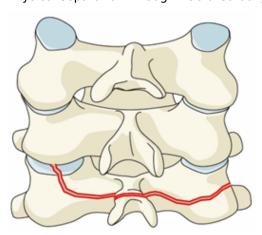
Please score this A4 fracture type on a scale of 0-100 in terms of their perceived severity (0=benign, 100=most severe).

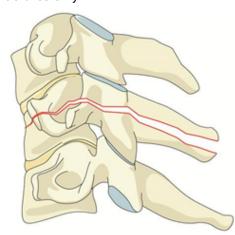
(Injury Severity Score)

**REDCap** 

## **Type B: Tension injuries**

B1 Posterior tension band injury (bony)
Physical separation through fractured bony structures only.

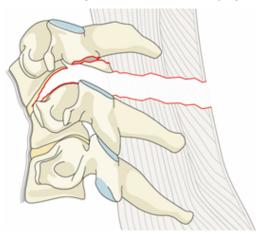


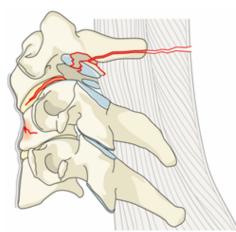


Please score this B1 fracture type on a scale of 0-100 in terms of their perceived severity (0=benign, 100=most severe).

(Injury Severity Score)

B2 Posterior tension band injury (bony capsuloligamentous, ligamentous) Complete disruption of the posterior capsuloligamentous or bony capsuloligamentous structures together with a vertebral body, disk, and/or facet injury.



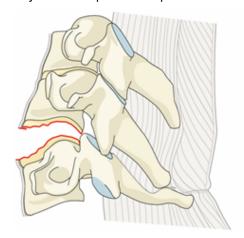


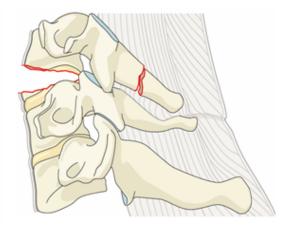
Please score this B2 fracture type on a scale of 0-100 in terms of their perceived severity (0=benign, 100=most severe).

(Injury Severity Score)

#### B3 Anterior tension band injury

Physical disruption or separation of the anterior structures (bone/disk) with tethering of the posterior elements.





**REDCap** 

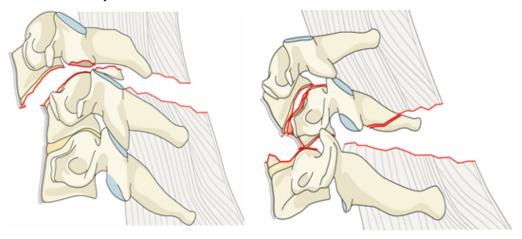
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Please score this B3 fracture type on a scale of
0-100 in terms of their perceived severity (0=benign,
100=most severe).



# **Type C: Translation Injuries**

C Translational injury in any axis-displacement or translation of one vertebral body relative to another in any direction.

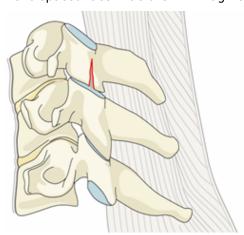


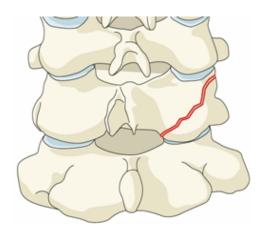
Please score this C fracture type on a scale of 0-100 in terms of their perceived severity (0=benign, 100=most severe).



# **Type F: Facet Injuries**

F1 Nondisplaced facet fracture Nondispaced facet fracture with fragment < 1cm, < 40% lateral mass.

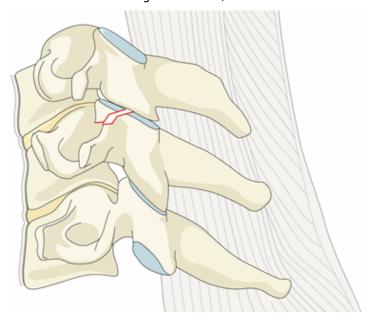




Please score this F1 fracture type on a scale of 0-100 in terms of their perceived severity (0=benign, 100=most severe).

(Injury Severity Score)

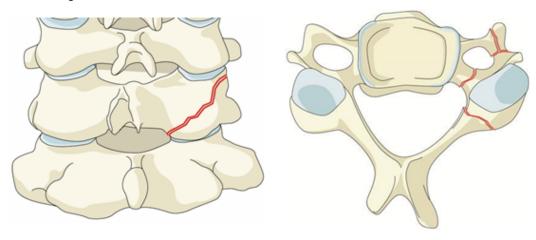
F2: Facet fracture with potential for instability Facet fracture with fragment >1cm, >40% lateral mass or displaced.



Please score this F2 fracture type on a scale of 0-100 in terms of their perceived severity (0=benign, 100=most severe).



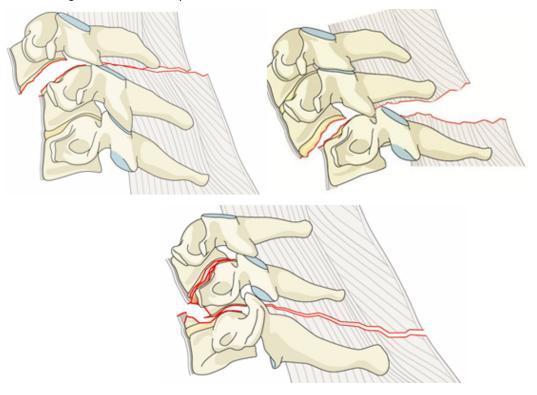
# F3 Floating lateral mass



Please score this F3 fracture type on a scale of 0-100 in terms of their perceived severity (0=benign, 100=most severe).

(Injury Severity Score)

F4 Pathologic subluxation or perched/dislocated facet



Please score this F4 fracture type on a scale of 0-100 in terms of their perceived severity (0=benign, 100=most severe).



# **The Severity Score - Neurology**

Each of the following neurological injuries should be scored on a scale of 0-100 in terms of their perceived severity, 0 being benign and 100 being most severe.

NO: Neurological Intact	
-	(Injury Severity Score)
N1: Transient neurologic deficit, resolved	
	(Injury Severity Score)
N2: Radiculopathy	
,	(Injury Severity Score)
N3: Incomplete spical cord injury	
,	(Injury Severity Score)
N4: Complete spinal cord injury	
	(Injury Severity Score)
NX: Cannot be examined	
	(Injury Severity Score)



# **The Severity Score - Modifiers**

Please score the following modifiers on a scale of 0-100 in terms of their perceived severity, 0 being benign and 100 being most severe.

M1: Posterior Capsuloligamentous Complex injury	4.1
without complete disruption.	(Injury Severity Score)
M2: Critical disk herniation.	
	(Injury Severity Score)
M3: Stiffening/metabolic bone disease (i.e. Diffuse	
Idiopathic Skeletal Hyperostosis (DISH), Ankylosing Spondylitis (AS), Ossification of the Posterior Longitudinal Ligament (OPLL), Ossification of the Ligamentum Flavum (OLF)).	(Injury Severity Score)
M4: Vertebral artery abnormality.	
,	(Injury Severity Score)

