AOSpine Sacral Classification System

Type A. Lower Sacrococcygeal Injuries
No impact on posterior pelvic or spino-pelvic instability

- A1. Coccygeal or compression vs ligamentous avulsion fractures

- A2. Non-displaced transverse fractures below the S-I joint
  - No impact on stability
  - Low likelihood of cauda equina injury

- A3. Displaced transverse fractures below the S-I joint
  - Higher likelihood of neuro injury than A1 or A2 (displacement)
  - May possibly benefit from reduction and stabilization

Type B. Posterior Pelvic Injuries
Primary impact is on posterior pelvic stability

- B1. Central Fracture–involves spinal canal
  - Longitudinal injuries—rare type of Denis Zone III injuries
  - Low likelihood of neurological injury

- B2. Transalar Fracture–does not involve foramina or spinal canal
  - Unilateral Denis Zone Injury

- B3. Transforaminal Fracture–involves foramina but not spinal canal
  - Denis Zone II Injury

Type C. Spino-Pelvic Injuries
Spino-pelvic instability

- C1. Alternative–Sacral U-type variant without posterior pelvic instability
  - Any unilateral B subtype where ipsilateral superior S1 facet is discontinuous with medial part of sacrum
  - May impact spino-pelvic stability

- C2. Bilateral complete Type B injuries without transverse fracture
  - More unstable and higher likelihood of neuro injury than C1

- C3. Displaced U-type sacral fracture
  - Worst combination of instability and likelihood of neuro injury
  - Displaced transverse sacral fracture = canal compromise

Sacral Fractures—Overview
Hierarchical system progressing from least to most unstable

- Type A. Lower Sacrococcygeal Injuries
  - No impact on posterior pelvic or spino-pelvic instability

- Type B. Posterior Pelvic Injuries
  - Primary impact is on posterior pelvic stability

- Type C. Spino-Pelvic Injuries
  - Spino-pelvic instability

Neurology

<table>
<thead>
<tr>
<th>Type</th>
<th>Neurological</th>
<th>Modifiers</th>
<th>Classification nomenclature</th>
</tr>
</thead>
<tbody>
<tr>
<td>N0</td>
<td>No neurological deficits</td>
<td>M1  Soft tissue injury</td>
<td>B3; M1, M3</td>
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<tr>
<td>N1</td>
<td>Transient neurological injury</td>
<td>M2  Metabolic bone disease</td>
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<tr>
<td>N2</td>
<td>Nerve root injury</td>
<td>M3  Vascular injury</td>
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<td>N3</td>
<td>Cauda equina Syndrome/complete SCI</td>
<td>M4  Anterior pelvic ring injury</td>
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<tr>
<td>N4</td>
<td>Complete SCI</td>
<td>M5  Sacral joint injury</td>
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<tr>
<td>N5</td>
<td>Cannot be examined</td>
<td>M6  Neurologic status and modifiers</td>
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<tr>
<td>N6</td>
<td>Combined spinal cord compression</td>
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Further information: www.aospine.org/classification