Evaluation of the Thoracic & Lumbar Spine
Remember the questions from lecture #2?
Observation

Remember what to look for from lecture #2?

Some unique things to look at with the spine.
Pelvic Tilt / Lumbar Curvature
Postural Faults - Sagittal

- Lordosis
- Sway Back
- Kyphosis
- Flat Back
Postural Faults - Frontal
Does the scoliosis disappear with flexion?
PALPATION

It’s easy to get lost!
## Thoracic Landmarks

<table>
<thead>
<tr>
<th>T1</th>
<th>Prominent; inferior to C-spine</th>
</tr>
</thead>
<tbody>
<tr>
<td>T2</td>
<td>Posterior from jugular notch</td>
</tr>
<tr>
<td>T3</td>
<td>Even with medial border of scapula</td>
</tr>
<tr>
<td>T7</td>
<td>Even with inferior angle of scapula</td>
</tr>
</tbody>
</table>
# Thoracic Rule of 3’s

<table>
<thead>
<tr>
<th>T1-T3</th>
<th>Same level</th>
</tr>
</thead>
<tbody>
<tr>
<td>T4-T6</td>
<td>Midway between</td>
</tr>
<tr>
<td>T7-T9</td>
<td>One below</td>
</tr>
<tr>
<td>T10</td>
<td>One below</td>
</tr>
<tr>
<td>T11</td>
<td>Midway between</td>
</tr>
<tr>
<td>T12</td>
<td>Same level</td>
</tr>
<tr>
<td>Lumbar / Sacral Landmarks</td>
<td></td>
</tr>
<tr>
<td>---------------------------</td>
<td></td>
</tr>
<tr>
<td>L3</td>
<td>Posterior to umbilicus</td>
</tr>
<tr>
<td>L4</td>
<td>Level with iliac crest</td>
</tr>
<tr>
<td>L5</td>
<td>Bilateral Dimples</td>
</tr>
<tr>
<td>S2</td>
<td>PSIS</td>
</tr>
</tbody>
</table>
STRESS

- Bone
- Joint
- Muscle / Tendon
- Nerve
- Vascular
BONE
Vertebrae
Spondylolisthesis and Spondylolysis
Fractures of the vertebrae occur at the pars interarticularis (spondylolysis) and can lead to subluxation of the vertebrae (spondylolisthesis). Prolotherapy is very effective at eliminating the pain.
Single Leg Stance
Ligaments
SI Compression / Distraction
Gaenslen’s Test
Passive ROM
MUSCLE
Muscles

Deep
Active / Resisted ROM
DISC
Disc
Valsalva
Milgram
Well Straight Leg Raise
NERVE
Nerves & Spinal Cord
Beevor’s Sign
Quadrant Test
Femoral Nerve Stretch
Straight Leg Raise
Slump Test
Tension Sign / Bowstring
Kernig’s / Brudzinski
Side Gliding
Malingering
Hoover Test