Clinical Pearl: Lumbar Anterior Shear Test

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Technique: Lumbar anterior shear test to assess for lumbar segmental instability.

Indication: Suspected lumbar segmental instability from history and/or physical examination. Or to verify the presence of instability due to radiological imaging demonstrating a spondylolisthesis (anterolisthesis or retrolisthesis).

Positioning: The client lies on either side with hips and knees flexed. A pillow is placed between the client's knees and the PT's groin and anterior thigh.

Instruction: Testing L4-5 for example: PT's left hand/fingers stabilize the spinous process (sp) of L4. PT's fingers of right hand will palpate the interspace between L4-5 and make note of the amount of anterior-posterior (AP) translation of L5 against L4. This must be compared to the AP translation at other levels in lumbar spine. The force for the AP translation comes from the PT pushing their pelvis forward against client's knees and in direction of client's femur. When testing a specific segment (ex: L4-5), be sure to test the segment several times with the hips flexed at varying degrees as this will affect how much AP translation you feel.

Note: If excessive motion is noted at L4-5 (example), it is difficult to know for sure if this is due to a degenerative L4-5 spondylolisthesis or a L5-S1 spondylolisthesis that is due to a spondylolysis (pars defect) at L5-S1 (see spine images below).