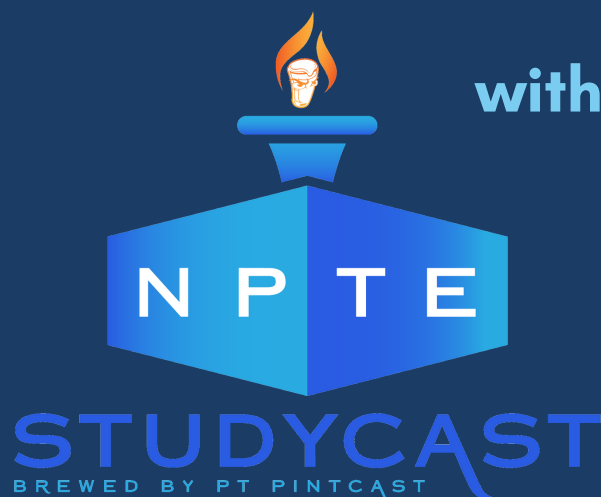


SPONDYLOLISTHESIS



with David Shirey,
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WHAT IS IT?

- Spondylolisthesis is the anterior displacement of one vertebrae on another.
- Anatomy involved
 - Mostly seen in L5/S1
 - Vertebral facets no longer blocking anterior translation
 - Lack of support from the anterior longitudinal or iliolumbar ligaments
 - Muscular instability allowing translation under physiologic load
- Causes
 - Congenital in nature - dysplasia in lumbar and sacral spine
 - Pathologic - weakening of pars, pedicle or facet joints
 - Degenerative - seen in older patients
 - Traumatic - fracture
 - Isthmic - defect in pars



SPECIAL TESTS



- Grading anterior slippage (I-IV) via MRI or CT
- Pain with repeated extension and rotation
 - Often seen with gymnasts and baseball athletes
- Vertebral PA glides

DIFFERENTIAL DIAGNOSIS

- Rule out red flags - cauda equina, upper motor neuron lesion
- Lumbar radiculopathy
- Treadmill/bike testing
 - Rule in/out vascular or neurogenic claudication



TREATMENT EXAMPLES



- Education
- Repeated motions
- Modification of positions or mechanics of activities
- Trunk stabilization

EXAMPLE QUESTION

A 14 y.o female gymnast has increased low back pain in midline while performing back bends during her warmups. Pain begin gradually and has worsened over last two months and she is mid season for her gymnastics. She has no radiating LE symptoms, denies weakness, numbness/paresthesia, bowel/bladder dysfunction. She feels better with rest and especially sitting after her practice is concluded. Which condition does this patient MOST likely present with?

- A. Disc herniation
- B. Spondylolisthesis
- C. Spinal tumor
- D. Scoliosis



Answer: B