

Radiology Lit Summary- SP-8.1 and SP 8.2 (Spondylolysis and Spondylolisthesis)

Spondylolysis is a very common incidental finding on radiographs in the general population but majority will be asymptomatic.⁵ Spondylolysis is one of the potential cause of back pain in gymnasts.⁴ Symptomatic pars lesions are particularly a clinical problem in adolescent athletes.^{5, 6} Spondylolysis and spondylolisthesis are a common cause of low back pain especially in young athletes but is a less common cause of neurologic compromise.² Plain radiographs with particular views display the majority of defects.³ MRI has sensitivity of 78% for detecting L4-L5 lumbar degenerative spondylolisthesis compared with 98% for lateral standing films.¹ MRI is less sensitive than CT for detecting pars defects but it is useful for evaluating bone marrow edema and nerve root compressions and stress reactions.⁶

Lumbar spondylolysis can heal with conservative treatment depending on the spinal level affected and stage of the defects. The site of defects in the pars, condition of contralateral pars, presence of spondylolisthesis, the degree of lumbar lordosis are among other factors significantly affecting union.⁷

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4. Kruse D, Lemmen B. Spine injuries in the sport of gymnastics. *Curr Sports Med Rep.* 2009;8:20-28.
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