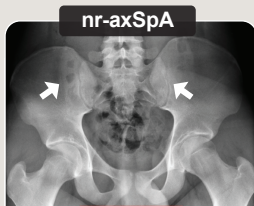


The Role of Imaging in axSpA Diagnosis

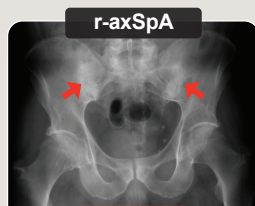
X-ray is the main method used to confirm the presence of sacroiliitis

Imaging lacks enough sensitivity and specificity to be the sole basis for diagnosis, but it can play an important diagnostic role^{1,2}

Radiographs of Sacroiliac Joint



No definite radiographic sacroiliitis as defined by the mNY criteria (Grade 0)³



Definite radiographic sacroiliitis as defined by the mNY criteria (Grade 3 bilaterally)⁴

Initial presentation of axSpA is heterogeneous and may not be visible by radiograph⁵

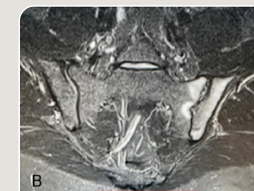
MRI may be required when X-ray findings are not clear

- STIR: inflammatory changes (osteitis or bone marrow edema)^{1,2}
- T1: structural changes (i.e. subchondral fat and erosions)^{1,6}

Imaging Findings in a Female Patient With nr-axSpA⁵



Pelvis radiograph



MRI of the SIJ

Modality ⁸⁻¹⁰		Structural/Chronic Changes ⁸⁻¹⁰	Inflammatory/Acute Changes ⁸⁻¹⁰	Usage Considerations ⁸⁻¹⁰
Conventional Radiography		Some diagnostic value	Not used for assessment	<ul style="list-style-type: none"> • Usually appropriate modality for initial imaging • Valuable for monitoring
CT (low dose)		Valuable for diagnosis	Not used for assessment	Consider if radiographs are negative or for sensitive evaluation of structural changes ^b
MRI ^a	T1	Valuable for diagnosis	Limited diagnostic value	<ul style="list-style-type: none"> • May be appropriate for initial imaging^b • Recommended if radiographs are negative • Valuable for monitoring
	STIR/T2-FS	Some diagnostic value	Valuable for diagnosis	
	3D acquisition or 3D UTE	Valuable for diagnosis	Not used for assessment	

^aA complete MRI protocol should include T1-weighted images and STIR or T2-weighted FS images.⁹ ^bIn cases of younger patients or those with a shorter symptom duration.⁸ ^cCertain patient populations (i.e. pregnancy) need to be evaluated carefully before injecting MRI contrast agents.¹¹ axSpA=Axial Spondyloarthritis; 3D=3-Dimensional; CT=Computed Tomography; FS=Fat Saturated; nr-axSpA=Non-radiographic Axial Spondyloarthritis; MRI=Magnetic Resonance Imaging; mNY=modified New York; r-axSpA=radiographic Axial Spondyloarthritis; SIJ=Sacroiliac joint; SpA=Spondyloarthritis; STIR=Short Tau Inversion Recovery Sequence; 3D UTE=3-Dimensional Ultrashort Echo Time. 1. Poddubnyy D. *Rheumatology (Oxford)*. 2020;59 (Suppl. 4):iv6-iv17. 2. Marzo-Ortega H. *Rheumatology (Oxford)*. 2020;59 (Suppl. 4):iv1-iv5. 3. Sieper J, Poddubnyy D. *Lancet*. 2017;390(10089):73-84. 4. Sieper J, et al. *Ann Rheum Dis*. 2002;61(Suppl. 3):iii8-iii18. 5. Michelen X, et al. *Rheumatology (Oxford)*. 2020;59 (Suppl. 4):iv18-iv24. 6. Lukas C, et al. *RMD Open*. 2018;4(1):e000586. 7. Navarro-Compán V, et al. *Ann Rheum Dis*. 2021;80(12):1511-1521. 8. Khmelinskii N, et al. *Front Med (Lausanne)*. 2018;5:106; 9. Kucybalal, et al. *Rheumatol Int*. 2018;38(10):1753-1762. 10. SchwaigerBJ, et al. *Eur Radiol*. 2021;31(7):4680-4689. 11. GhadimiM, SapraA. In: StatPearls [Internet]. 2023.



For more information, visit Lilly's axSpA 3D explorer tool

