

MR Adrenal

Last Updated: 9/4/2025

Name	Plane	Type	Thick	Space	Scan Range	Comments
SCOUT						
In/Opp Phase Ax	Axial	2D T1w gradient echo in/out phase	3-4 mm	0mm	Diaphragm to Bottom of Kidneys	Single breathold; TE of OP must precede IP
In/Opp Phase Cor	Coronal	2D T1w gradient echo in/out phase	3-4 mm	0 mm	Diaphragm to Bottom of Kidneys	Single breathold; TE of OP must precede IP
T2 Ax	Axial	2D T2w single shot fast spin echo	3 mm	0 mm	Diaphragm to Bottom of Kidneys	Alternative: 2D axial T2w fast spin echo.
T2 Cor	Coronal	2D T2w single shot fast spin echo	5 mm	0 mm	Diaphragm to Bottom of Kidneys	Alternative: 2D axial T2w fast spin echo.
T1 FS Ax Pre	Axial	3D T1w SPGR with fat saturation pre-contrast	3-4 mm	0 mm	Diaphragm to Bottom of Kidneys	
OPTIONAL						
T1 FS Ax Post	Axial	3D T1w SPGR with fat saturation post-contrast	3-4 mm	0 mm	Diaphragm to Bottom of Kidneys	Water only Dynamic Timing: , 30 s, 90-100 s, 180-210 s

DWI	Axial	Diffusion Weighted Imaging	5-6 mm	0 mm	Diaphragm to Bottom of Kidneys	b0-50, b400-500, b800-1000 s/mm2
CONTRACT:						
Type	Extracellular gadolinium-based contrast material					
DOSE	0.1 mL/kg body weight					
DELAY	1-2 mL/sec followed by 10-20 mL saline flush					

Notes:

Reference SAR Adrenal Mass DFP recommended protocol

<https://abdominalradiology.org/wp-content/uploads/2025/02/MR-adrenal-mass-protocols-v1.pdf>

Prefer 2D IP/OP over 3D

IP/OP should be as close to true in and opposed phase resonances as possible, i.e. 2.2 ms for OP & 4.4 ms for IP at 1.5T; 1.1 ms for OP & 2.2 ms for IP at 3T

Consider OPTIONAL sequences if known malignancy and/or eval for biopsy target