

MRI Extremity Non Joint (Humerus, Forearm, Thigh, Tib/Fib)

Revised: 2/2021

CPT Code: 73718, 73720

Indications Non Con: Pain, Muscle/Ligament injury, Fracture

Indications Contrast: Mass, Malignancy, Infection, Osteomyelitis, Abscess

Contrast: As indicated

Preferred Scanner: Long Bore Preferred

NON CONTRAST

Plane	Sequence	Slice (mm)	Gap (mm)	FAT SAT	FOV (mm)	Scan Range	Notes
Coronal	STIR	3-5mm	1-1.5mm	NO	Adjust to anatomy	Using AX and SAG scout, position blocks parallel to long bone or muscle. Cover joint to joint, bilaterally	Use BILAT coverage if lower extremity
Coronal	T1	3-5mm	1-1.5mm	NO	Adjust to anatomy	Using AX and SAG scout, position blocks parallel to long bone or muscle. Cover joint to joint.	
Sagittal	T2	3-5mm	1-1.5mm	YES	Adjust to anatomy	Using AX scout, position block perpendicular to long bone. Using COR scout, position parallel to long bone. Cover joint to joint.	FAT SAT (If FS fails, replace with STIR)
Sagittal	T1	3-5mm	1-1.5mm	NO	Adjust to anatomy	Using AX scout, position block perpendicular to long bone. Using COR scout, position parallel to long bone. Cover joint to joint.	
Axial Upper	T1	3-5mm	1-1.5mm	NO	Adjust to anatomy	Using COR scout, position block perpendicular to long bone anatomy or muscle. Using SAG scout, position block perpendicular to bone or muscle. Cover proximal joint to mid bone.	
Axial Lower	T1	3-5mm	1-1.5mm	NO	Adjust to anatomy	Using COR scout, position block perpendicular to long bony anatomy or muscle. Using SAG scout, position block perpendicular to	

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						bone or muscle. Cover mid bone to overlap AX UPPER and to distal joint.	
Axial Upper	STIR	3-5mm	1-1.5mm	NO	Adjust to anatomy	Using COR scout, position block perpendicular to long bony anatomy or muscle. Using SAG scout, position block perpendicular to bony anatomy or muscle. Cover proximal joint to mid bone.	
Axial Lower	STIR	3-5mm	1-1.5mm	NO	Adjust to anatomy	Using COR scout, position block perpendicular to long bony anatomy or muscle. Using SAG scout, position block perpendicular to bony anatomy or muscle. Cover mid bone to overlap AX UPPER and to distal joint.	
If Contrast:							
SEE NOTE	T1	3-5mm	1-1.5mm	YES	Adjust to anatomy	Sequence to just cover area of abnormality.	Precontrast FS T1 is only needed if we are doing post contrast imaging. Pre contrast FS plane should be determined at TOS. Usually Axial plane, but choose plane that best demonstrates mass or other region of interest. Pre Contrast and post contrast sequence in same plane must match EXACTLY (same TR/TE/NEX/FA) etc

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CONTRAST

Plane	Sequence	Slice (mm)	Gap (mm)	FAT SAT	FOV (mm)	Scan Range	Notes
Axial Upper	T1	3-5mm	1-1.5mm	YES	Adjust to anatomy	Using COR scout, position block perpendicular to long bony anatomy or muscle. Using SAG scout, position block perpendicular to bony anatomy or muscle. Cover proximal joint to mid bone.	FAT SAT
Axial Lower	T1	3-5mm	1-1.5mm	YES	Adjust to anatomy	Using COR scout, position block perpendicular to long bony anatomy or muscle. Using SAG scout, position block perpendicular to bony anatomy or muscle. Cover mid bone to overlap AX UPPER and to distal joint.	FAT SAT
Coronal	T1	3-5mm	1-1.5mm	YES	Adjust to anatomy	Using AX and SAG scout, position blocks parallel to long bone or muscle. Cover joint to joint.	FAT SAT
Sagittal	T1	3-5mm	1-1.5mm	YES	Adjust to anatomy	Using AX scout, position block perpendicular to long bone joint. Using COR scout, position parallel to long bone. Cover joint to joint.	FAT SAT

****FOV:** Should be adjusted to cover anatomy being imaged. Use smallest FOV possible with good signal and anatomical coverage

****Slice Thickness:** Adjust slice thickness according to anatomy imaged (i.e. forearm would have thinner slices than thigh)

****Contact Radiologist with questions**