

**PROTOCOL: THUMB OSTEO MYELITIS/TUMOR**

**COIL:** Dedicated hand/wrist coil. If not present, small flex coil (4-16 CH) wrapped around.

**POSITIONING:** Thumb straight. Pad thumb/fingers dorsal and volar so they cannot move. Superman or arm at side. If arm at side careful attention to avoid phase wrap. Extra effort to make comfortable.

**CLINICAL INDICATIONS/HISTORY:** INFECTION, OSTEO MYELITIS, TUMOR

**PLOTTING:** Axial FIRST off of coronal and sagittal localizers. True axial to THUMB Coronal = parallel to sesamoids or condyles at volar 1st MCP joint  
Sagittal = perpendicular to sesamoids or condyles at volar 1st MCP joint

**COVERAGE:** Center FOV at MCP joint of thumb. Include entire thumb. Cover entire affected area!

**TIPS:** The thumb is oblique to the hand in every imaging plane.

SCAN ORDER	PLANE	IMAGE CONTRAST/WEIGHTING	MODE/SEQ TYPE	Averages (NEX)	BW (Hz/pixel)	ETL	TR RANGE	TE RANGE	TI	FLIP ANGLE	SLICE/GAP (mm)	FOV (cm)	Resolution	Phase Axis	Send to PACS	Fat sat
1	AX	STIR	2D/FSE	1-2	150-180	8-12	3500-6000	20-30	140 - 150	>130	3.0/0	8-12	256 x 256	RL	FULL SERIES	
2	AX	T1	2D/FSE	1	150-180	2-3	450-650	8-10		>130	3.0/0	8-12	256 x 256	RL	FULL SERIES	NONE
3	COR	T2FS	2D/FSE	1	150-180	8-12	3500-6000	65-75		>130	2.0/0	8-12	256 X 256	SI	FULL SERIES	WEAK
4	COR	T1	2D/FSE	1	150-180	2-3	450-650	8-10		>130	2.0/0	8-12	256 x 256	SI	FULL SERIES	NONE
5	SAG	STIR	2D/FSE	1	150-180	8-12	3500-6000	20-30	140 - 150	>130	2.0/0	8-12	256 x 256	SI	FULL SERIES	
IF WO/W PRE-GAD: 6	AX	T1FS	2D/FSE	1	150-180	2-3	450-650	8-10		>130	3.0/0	8-12	256 X 256	RL	FULL SERIES	WEAK
<b>GIVE CONTRAST</b>																
POST-GAD: 7	AX	T1FS	2D/FSE	1	150-180	2-3	450-650	8-10		>130	3.0/0	8-12	256 X 256	RL	FULL SERIES	WEAK
POST-GAD: 8	COR	T1FS	2D/FSE	1	150-180	2-3	450-650	8-10		>130	2.0/0	8-12	256 x 256	SI	FULL SERIES	WEAK

