

Radiology of Indiana - Breast MRI

Protocol	Sequence	FOV (CM)	Slice Thickness	Spacing/GAP	TR	TE	Matrix	BW	Flip Angle	Avg/NEX	Slices	Time	Notes
Routine Breast	LOC												
	SPACE 3D TRANS FS	300-450 usually 340	1.7	0	1200	172	316*384	296		1.4	120-144 more if needed	-5:18	Interpolated
	T1 TRAN NON FS	300-450 usually 340	1.3*	0	8.9	4.7	323*448	300	20	1	144	1:09	*(Flash sequence) KEEP NUMBER OF SLICES - CHANGE SLICE THICKNESS IF MORE COVERAGE IS NEEDED
	T1 TRAN FS PRE DYN	300-450 usually 340	1.3*	0	4.56	2.11	338*352	570	10	1	144	1:30	*(Flash sequence) KEEP NUMBER OF SLICES - CHANGE SLICE THICKNESS IF MORE COVERAGE IS NEEDED
	T1 TRANS FS POST DYN	300-450 usually 340	1.3*	0	4.56	2.11	338*352	570	10	1	144	3 CYCLES - 6	POST CONTRAST - Wait 30 sec., 3 time points, peak at 1st time point
Implant Integrity Plus Contrast (Cancer Screening)	LOC												
	SPACE 3D TRANS FS	300-450 usually 340	1.7	0	1200	172	316*384	296		1.4	120-144 more if needed	-5:18	Interpolated
	T1 TRAN NON FS	300-450 usually 340	1.3*	0	8.9	4.7	323*448	300	20	1	144	1:09	*(Flash sequence) KEEP NUMBER OF SLICES - CHANGE SLICE THICKNESS IF MORE COVERAGE IS NEEDED
	T1 TRAN FS PRE DYN	300-450 usually 340	1.3*	0	4.56	2.11	338*352	570	10	1	144	1:30	*(Flash sequence) KEEP NUMBER OF SLICES - CHANGE SLICE THICKNESS IF MORE COVERAGE IS NEEDED
	T1 TRANS FS POST DYN	300-450 usually 340	1.3*	0	4.56	2.11	338*352	570	10	1	144	3 CYCLES - 6	POST CONTRAST - Wait 30 sec., 3 time points, peak at 1st time point
	STIR TRAN WATER SAT	300-450 usually 340	4	0.4	6000	77	320*320	260	150	1	40-50 more if needed	-2:26	Use same slices as STIR TRAN - Background Dark and Implant Bright
	TIRM-WS-SAG-SILICONE LEFT	200-240 or more usually 200	4	0	7610	92	240*320	260	150	1	38	-4:11	BACKGROUND DARK AND IMPLANT BRIGHT
TIRM-WS-SAG-SILICONE RIGHT	200-240 or more usually 200	4	0	7610	92	240*320	260	150	1	38	-4:11	BACKGROUND DARK AND IMPLANT BRIGHT	
Implant Integrity (without contrast)	LOC												
	T1 TRAN NON FS	300-450 usually 340	1.3*	0	8.9	4.7	323*448	300	20	1	144	1:09	*(Flash sequence) KEEP NUMBER OF SLICES - CHANGE SLICE THICKNESS IF MORE COVERAGE IS NEEDED
	STIR TRAN	300-450 usually 340	4	0.4	5000	62	256*256	235	150	2	40-50 more if needed	-3:32	
	STIR TRAN WATER SAT	300-450 usually 340	4	0.4	6000	77	320*320	260	150	1	40-50 more if needed	-2:26	Use same slices as STIR TRAN - Background Dark and Implant Bright
	TIRM-WS-SAG-SILICONE LEFT	200-240 or more usually 200	4	0	7610	92	240*320	260	150	1	38	-4:11	BACKGROUND DARK AND IMPLANT BRIGHT
TIRM-WS-SAG-SILICONE RIGHT	200-240 or more usually 200	4	0	7610	92	240*320	260	150	1	38	-4:11	BACKGROUND DARK AND IMPLANT BRIGHT	
Abbreviated MRI (ABMRI)	LOC												
	SPACE 3D TRANS FS	300-450 usually 340	1.7	0	1200	172	316*384	296		1.4	120-144 more if needed	-5:18	Interpolated
	T1 TRAN FS PRE DYN	300-450 usually 340	1.3*	0	4.56	2.11	338*352	570	10	1	144	1:30	*(Flash sequence) KEEP NUMBER OF SLICES - CHANGE SLICE THICKNESS IF MORE COVERAGE IS NEEDED
	T1 TRAN FS POST DYN	300-450 usually 340	1.3*	0	4.56	2.11	338*352	570	10	1	144	1:30	POST CONTRAST - ONLY 1 CYCLE - Wait 30 seconds then scan
Biopsy - Sagittal	LOC												
	T1 DYN SAG FS PRE	200-240 usually 200	1	0	4.13	1.33	205*256	390	10	1	144 - Can use less just cover all of breast	1:25	Flash sequence - need coverage of entire breast - make sure you see the fiducial
	T1 DYN SAG FS POST	200-240 usually 200	1	0	4.13	1.33	205*256	390	10	1	144 - Can use less just cover all of breast	1:25	Wait 30 seconds then scan
	T1 DYN SAG Oburator	200-240 usually 200	1	0	4.13	1.33	205*256	390	10	1	144 - Can use less just cover all of breast	1:25	May need to run an additional one if you change placement - Relabel as obt 2
	T1 DYN SAG - Post Biopsy	200-240 usually 200	1	0	4.13	1.33	205*256	390	10	1	144 - Can use less just cover all of breast	1:25	
	T1 DYN SAG - Post Clip	240	0.5	0	5.89	1.53	205*256	390	10	1	80 - coverage of the site location	1:25	Radiologist dependent
Biopsy - Axial	LOC												
	T1 DYN SAG FS PRE	200-240 usually 200	1	0	4.13	1.33	205*256	390	10	1	144 - Can use less just cover all of breast	1:25	Flash sequence - need coverage of entire breast - make sure you see the fiducial
	T1 DYN SAG FS POST	200-240 usually 200	1	0	4.13	1.33	205*256	390	10	1	144 - Can use less just cover all of breast	1:25	Wait 30 seconds then scan
	T1 DYN AX Oburator	200-240 usually 200	1	0	4.13	1.33	205*256	390	10	1	144 - Can use less just cover all of breast	1:25	
	T1 DYN AX - Post Biopsy	200-240 usually 200	1	0	4.13	1.33	205*256	390	10	1	144 - Can use less just cover all of breast	1:25	
	T1 DYN AX - Post Clip	240	0.5	0	5.89	1.53	205*256	390	10	1	80 - coverage of the site location	1:25	Radiologist dependent