

## Radiology of Indiana - MRI MSK

Protocol	FOV (CM)	Slice	Spacing
<b>Shoulder</b>			
AX T1	16	3	1
AX PD FS	16	3	1
COR PD	15	3	1
COR T2	15	3	1
COR STIR	15	3	1
SAG PD	15	3	1
SAG T2 FS	15	3	1
AX T1 FS (if contrast)	16	3	1
AX T1 FS +C	15	3	1
COR T1 FS +C	15	3	1
*If there is metal artifact that degrades image quality, <u>substitute</u> all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
<b>Shoulder Arthrogram</b>			
AX T1 FS	16	3	1
COR T1 FS	15	3	1
SAG T1 FS	15	3	1
AX T2 FS	16	3	1
COR T1	15	3	1
COR T2 FS	15	3	1
SAG PD	15	3	1
SAG T2	15	3	1
*If there is metal artifact that degrades image quality, <u>substitute</u> all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
<b>Axilla or Groin</b>			
AX T1	20	3	1
AX STIR	20	3	1
COR T2	20	3	1
SAG T2	20	3	1
AX T1 FS	20	3	1
AX T1 FS +C	20	3	1
COR T1 FS +C	20	3	1
<b>** Place skin marker on area of interest **</b>			
*If there is metal artifact that degrades image quality, <u>substitute</u> all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
<b>Scapula</b>			
AX T1	20-25	4	0.5
AX STIR	20-25	4	0.5
AX GRE	20-25	4	0.5
COR T1	20-25	4	0.5
COR STIR	20-25	4	0.5
SAG T2	20-25	4	0.5
SAG STIR	20-25	4	0.5
AX T1 FS (if contrast)	20-25	4	0.5
AX T1 FS +C	20-25	4	0.5
COR T1 FS +C	20-25	4	0.5

\*If there is metal artifact that degrades image quality, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist

<b>Elbow</b>			
SAG T2 FS	16	3	1
SAG T1	16	3	1
AX T2 FS	16	3	1
AX T1	16	3	1
COR STIR	16	3	1
COR T2	16	3	1
COR GE	16	3	1
AX T1 FS (if contrast)	16	3	1
AX T1 FS +C	16	3	1
SAG T1 FS +C	16	3	1

\*If there is metal artifact that degrades image quality, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist

<b>Elbow Arthrogram</b>			
AX T1 FS	16	3	1
AX T2 FS	16	3	1
COR T1 FS	16	3	1
SAG T1 FS	16	3	1
COR T1	16	3	1
COR T2 FS	16	3	1
SAG T2 FS	16	3	1

<b>Wrist</b>			
AX T1	10	2.5	0.5
AX T2 FS	10	2.5	0.5
COR STIR	10	2.5	0.3
COR T2	10	2.5	0.3
COR 3D GE	10	2.5	0.3
SAG T1	10	3	0.5
SAG T2 FS	10	3	0.5
AX T1 FS (if contrast)	10	2.5	0.5
AX T1 FS +C	10	2.5	0.5
COR T1 FS +C	10	2.5	0.3

\*If there is metal artifact that degrades image quality, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist

<b>Wrist Arthrogram</b>			
AX T1 FS	10	2.5	0.5
COR T1 FS	10	2.5	0.3
SAG T1 FS	10	3	0.5
AX T2 FS	10	2.5	0.5
COR T1	10	2.5	0.3
COR T2 FS	10	2.5	0.3
SAG STIR	10	3	0.5

<b>Hand</b>				
AX T2 FS	17-19	3	0.5	
AX T1	17-19	3	0.5	
COR GE	17-19	3	0.5	
COR T2 FS	17-19	3	0.5	
COR T1	17-19	3	0.5	
SAG T1	17-19	3	0.5	
SAG STIR	17-19	3	0.5	
AX T1 FS (if contrast)	17-19	3	0.5	
AX T1 FS +C	17-19	3	0.5	
COR T1 FS +C	17-19	3	0.5	
*If there is metal artifact that degrades image quality, <u>substitute</u> all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist				
<b>Finger</b>				
SAG STIR	10-12	3	0.5	
SAG T1	10-12	3	0.5	
COR T2 FS	10-12	3	0.5	
COR GE	10-12	3	0.5	
COR T1	10-12	3	0.5	
AX T2 FS	10-12	3	0.5	
AX T1	10-12	3	0.5	
AX T1 FS (if contrast)	10-12	3	0.5	
AX T1 FS +C	10-12	3	0.5	
COR T1 FS +C	10-12	3	0.5	
*If there is metal artifact that degrades image quality, <u>substitute</u> all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist				
<b>Upper Extremity Long Bone (Humerus, Forearm)</b>				
SAG T2 FS	32-34	4	1	
SAG T1	32-34	4	1	
COR STIR	32-34	4	1	
COR T1	32-34	4	1	
AX STIR	18-20	5	2	
AX T1	18-20	5	2	
AX T1 FS (if contrast)	18-20	5	2	
AX T1 FS +C	18-20	5	2	
COR T1 FS +C	32-34	4	1	
*If there is metal artifact that degrades image quality, <u>substitute</u> all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist				
<b>Hip(s) Without contrast</b>				
AX STIR Pelvis	36	5	1	
COR STIR Pelvis	36	5	1	
COR T1 Pelvis	36	5	1	
OBL AX PD FS (both sides if bilateral)	20	4	1	
COR PD FS (both sides if bilateral)	20	4	1	
SAG T2 FS (both sides if bilateral)	20	4	1	

<b>Hip(s) With Contrast</b>			
AX STIR Pelvis	36	5	1
COR STIR Pelvis	36	5	1
COR T1 Pelvis	36	5	1
OBL AX PD FS (both sides if bilateral)	20	4	1
COR PD FS (both sides if bilateral)	20	4	1
SAG T2 FS (both sides if bilateral)	20	4	1
OBL AX T1 FS	20	4	1
AX T1 FS + C	20	4	1
COR T1 FS + C	20	4	1
SAG T1 FS + C	20	4	1
*If there is metal artifact that degrades image quality, <u>substitute</u> all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
<b>Hip Arthrogram</b>			
COR T1 FS	20	4	1
SAG T1 FS	20	4	1
AX T2 FS	20	4	1
SAG T2 FS	20	4	1
COR T2 FS	20	4	1
COR T1	20	4	1
OBL AX PD	20	4	1
COR STIR (Pelvis)	36	5	1
<b>Sports Hernia, Athletic Pubalgia, Adductor Tear/Strain</b>			
COR T1	36	4	1
COR STIR	36	4	1
AX T2 F/S	36	5	1
AX Oblique PD	20	4	0.5
AX Oblique T2 F/S	20	4	0.5
SAG T2 F/S	22	4	0.5
<b>Knee</b>			
AX T1	15	3	1
AX T2 FS	15	3	1
COR PD	15	3	1
COR PD FS	15	3	1
SAG PD	15	3	1
SAG T2	15	3	1
SAG PD FS (STRAIGHT)	15	3	1
OBLIQUE COR T2	15	2	0.5
AX T1 FS (if contrast)	15	3	1
AX T1 FS +C	15	3	1
COR T1 FS +C	15	3	1
*If there is metal artifact that degrades image quality, <u>substitute</u> all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			

<b>Ankle</b>			
SAG STIR	17	3	1
SAG T1	17	3	1
AX T2 FS	15	3	1
AX PD	15	3	1
COR T2	17	3	1
COR STIR	17	3	1
OBL AX T2 PD (magic angle)	17	3	1
OBL AX T2 (magic angle)	17	3	1
AX T1 FS (if contrast)	15	3	1
AX T1 FS +C	15	3	1
SAG T1 FS +C	17	3	1
*If there is metal artifact that degrades image quality, <u>substitute</u> all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
<b>Ankle (Achilles)</b>			
SAG STIR	22	3	1
SAG T2	22	3	1
SAG T1	22	3	1
AX T2 FS	15	3	1
AX PD	15	3	1
COR T2	17	3	1
COR STIR	17	3	1
<b>Foot</b>			
SAG STIR	16	3	1
SAG T1	16	3	1
COR STIR	16	3	1
COR T1	16	3	1
AX T2 FS	14	3	1
AX T1	14	3	1
AX T1 FS (if contrast)	14	3	1
AX T1 FS +C	14	3	1
SAG T1 FS +C	16	3	1
*If there is metal artifact that degrades image quality, <u>substitute</u> all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
<b>Osteomyelitis</b>			
SAG T1	13	3	0.5
SAG STIR	13	3	0.5
COR T1	13	3	0.5
COR STIR	13	3	0.5
AX T1	13	2.5	0.5
AX STIR	13	2.5	0.5
AX T1 FS PRE	13	2.5	0.5
AX T1 FS +C	13	2.5	0.5
SAG T1 FS +C	13	3	0.5
*If there is metal artifact that degrades image quality, <u>substitute</u> all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			

<b>Toe Routine</b>			
SAG STIR	13	3	0.5
SAG T1	13	3	0.5
COR STIR	13	3	0.5
COR T1	13	3	0.5
AX T2 FS	13	2.5	0.5
AX T1	13	2.5	0.5
<b>Lower Extremity Long Bone (Femur, Tib/Fib)</b>			
SAG T1	42-45	5	1
SAG T2 FS	42-45	5	1
COR T1	42-45	5	1
COR STIR	42-45	5	1
AX T1	22	6	2
AX STIR	22	6	2
AX T1 FS PRE	22	6	2
AX T1 FS +C	22	6	2
COR T1 FS +C	42-45	5	1
*If there is metal artifact that degrades image quality, <u>substitute</u> all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
<b>Boney Pelvis</b>			
COR T1	36	5	1
COR STIR	36	5	1
AX T1	36	5	1
AX STIR	36	5	1
SAG T2 FS	36	5	1
AX T1 FS PRE	36	5	1
AX T1 FS +C	36	5	1
COR T1 FS +C	36	5	1
*If there is metal artifact that degrades image quality, <u>substitute</u> all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
<b>Sacrum/SI Joints</b>			
AX T1 GLOBAL	40	5	1
AX STIR GLOBAL	40	5	1
SAG T2 FS	19	4	1
SAG T1	19	4	1
COR STIR	24	3	1
COR T1	24	3	1
AX T2 FS	20	4	1
AX T1 FS PRE	20	4	1
AX T1 FS +C	20	4	1
SAG T1 FS +C	19	4	1
*If there is metal artifact that degrades image quality, <u>substitute</u> all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			

<b>Myositis (Lower Extremity)</b>			
AX T1	40 x 50	8	1
AX T2 Fat Sat	40 x 50	8	1
COR T1	50	5	1
COR STIR	50	5	1
SAG STIR	40 x 50	5	1
* Scan both thighs at same time from top of hips to tibial plateau.			
* If ordering provider requests pelvis for gluteal muscle groups a separate pelvis MRI should be ordered.			
<b>Myositis (Upper Extremity)</b>			
AX T1	20 x 20	6	1
AX T2 Fat Sat	20 x 20	6	1
COR T1	20 x 40	4	1
COR STIR	20 x 40	4	1
SAG STIR	20 x 40	4	1
* Scan above shoulder through elbow			
* Scan each humerus separate (Right and Left) and orientate to humerus			