Radiology of Indiana - MRI MSK

Protocol	FOV (CM)	Slice	Spacing
Shoulder			
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, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
Shoulder Arthrogram			
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 FS	15	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			
Axilla or Groin			
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
**** Place skin marker on area of interest ****			
*If there is metal artifact that degrades image quality, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
Scapula			
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			

Elbow			
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			
Elbow Arthrogram			
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
Wrist			
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			
Wrist Arthrogram			
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
Hand			
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, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
Finger			
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, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
Upper Extremity Long Bone (Humerus, Forearm)			
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, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
Hip(s) Without contrast			
AX STIR Pelvis	36	5	1
AX T1 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	3	1
COR PD FS (both sides if bilateral)	20	3	1
SAG T2 FS (both sides if bilateral)	20	3	1
Hip(s) With Contrast			
AX STIR Pelvis	36	5	1
AX T1 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	3	1
COR PD FS (both sides if bilateral)	20	3	1
SAG T2 FS (both sides if bilateral)	20	3	1
AX T1 FS	20	3	1
AX T1 FS + C	20	3	1
COR T1 FS + C	20	3	1
SAG T1 FS + C	20	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			
Hip Arthrogram			
COR T1 FS	20	3	1
SAG T1 FS	20	3	1
OBL AX PD FS	20	3	1
SAG T2 FS	20	3	1
COR T2 FS	20	3	1
AX T2 FS (Pelvis)	36	5	1
COR T1 (Pelvis)	36	5	1
COR STIR (Pelvis)	36	5	1
HIP - Metal Artifact Reduction Sequence (MARS)			
All sequence are with proprietary metal artifact reduction:			
WARP - Siemens			
MAVRIC - GE			
O-MAR - Philips			
AX T1 Pelvis	40	5	1
Ax STIR Pelvis	40	5	1
COR T1 Pelvis	40	5	1
COR STIR Pelvis	40	5	1
OBL AX PD (Hip)	20	3	1
SAG T2 (Hip)	20	3	1
COR PD (Hip)	20	3	1
SAG STIR (Hip)	20	3	1
Sports Hernia, Athletic Pubalgia, Adductor Tear/Strain			
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
Hamstring Tear			
Axial PD/T2 Fat Sat (Bilat Hip Joints thru 1/2 -2/3 Femora)	37	7	2
COR T1 (Bilat Hip Joints thru 1/2 -2/3 Femora)	37	5	1
COR STIR (Bilat Hip Joints thru 1/2 -2/3 Femora)	37	5	1
Reposition Patient			
AX T1 (Affected side in iso-center)	27	5	1
AX T2 Fat Sat (Affected side in iso-center)	27	5	1
SAG T2 Fat Sat (Affected side in iso-center)	37	5	1
Knee			
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, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
Knee - Metal Artifact Reduction Sequence (MARS)			
All sequence are with proprietary metal artifact reduction:			
WARP - Siemens			
MAVRIC - GE			
O-MAR - Philips			
AX T1	15	3	1
AX STIR	15	3	1
COR T2	15	3	1
COR T1	15	3	1
COR STIR	15	3	1
SAG T2	15	3	1
SAG STIR	15	3	1
Ankle			
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, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
Ankle (Achilles)			
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
Foot			
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, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
Osteomyelitis			
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, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
Toe Routine			
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
Lower Extremity Long Bone (Femur, Tib/Fib)			
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, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
Boney Pelvis			
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, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
Sacrum/SI Joints			
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, substitute all T1 Fat sat sequences with T1 non fat sat or consult with Radiologist			
Myositis (Lower Extremity)			
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.			
Myositis (Upper Extremity)			
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			
Sternum			
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	3	0.5
COR STIR	20-25	3	0.5
SAG T2	20-25	3	0.5
SAG T1	20-25	3	0.5
SAG STIR	20-25	3	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	3	0.5