

3T WRIST MRI - UW MADISON													1/24/11 Desmet/Robichaud			
COIL													MEV updated 5-9-18			
8ch Knee, HD Wrist, 16 ch Flex													Positioning = PALM DOWN			
													Arm at side: Feet 1st or Head 1st (However patient is positioned)			
													Arm overhead not midline = Select Head 1st, *Annotations INCORRECT			
													Arm overhead midline = Select Feet 1st, Annotations CORRECT			
													750 OK to have 320 as Freq Matrix			
													no zip 512 if matrix 288 or above.			
BASIC WRIST			FOV	Pfov	slthk/sp	frq dir	TR	TE	ETL	TI	Sat	Matrix	NEX	BW	ADVANCED	
1	3 pl loc	2d std loc	Seq, fast, NP	30 x 30	pfov 1	7 / 2	def	TR def	TE def			288 x 128	2 nex			
2	Ax T1 FSE	2d FSE-XL	TRf, Fast	12 x 9	pfov .7	3 / .5	swap	TR 600	TE 16	ETL 4		288 x 192	2 nex	BW 31	clc ann sup 1	
3	Ax T2 cl fat	2d FSE-XL	TRf, Fast,	12 x 9	pfov .7	3 / .5	swap	TR 3000	TE 80	ETL 20	cl fat	288 x 224	2 nex	BW 41	f eff 1, clc ann sup 1	
4	Sag T2 cl fat	2d FSE-XL	TRf, Fast	14 - 16	pfov 1	3 / .5	unswap	TR 3000	TE 80	ETL 20	cl fat	288 x 224	3 nex	BW 41	f eff 1, clc ann sup 1	
5	Cor T1 FSE	2d FSE-XL	TRf, Fast,	14 - 16	pfov 1	2 / .2	unswap	TR 575	TE 16	ETL 4		288 x 224	2 nex	BW 31	clc ann sup 1	
6	Cor T2 cl fat	2d FSE-XL	TRf, Fast,	14 - 16	pfov 1	2 / .2	unswap	TR 3000	TE 80	ETL 20	cl fat	288 x 224	3 nex	BW 41	f eff 1, clc ann sup 1	
S/L Ligament - line up proximal surfaces of lunate and scaphoid bones and scan perpendicularly to the ligament seen on the coronal view (Radial side)																
	obl Ax PD fat	2d FSE-XL	TRf, Fast, NP	12 x 12	pfov 1	2 / .2	unswap	TR 1800	TE 31	ETL 8	dk fat	288 x 224	1 nex	BW 41	f eff 1, clc ann sup 1	
T/L Ligament - line up proximal surfaces of triquetrum and lunate bones and scan perpendicularly to the ligament seen on the coronal view (Ulnar side)																
	obl Ax PD fat	2d FSE-XL	TRf, Fast, NP	12 x 12	pfov 1	2 / .2	unswap	TR 1800	TE 31	ETL 8	dk fat	288 x 224	1 nex	BW 41	f eff 1, clc ann sup 1	
Fx scan sagittally along the long axis of scaphoid bone																
	Sag T1 FSE	2d FSE-XL	TRf, Fast	12 x 9	pfov .7	2 / .2	swap	TR 600	TE 16	ETL 4		288x 192	2 nex	BW 31	clc ann sup 1	
TUMOR Only:																
	PRE ax T1 dk fat	2d FSE-XL	TRf, Fast,	12 x 9	pfov .7	3 / .5	swap	TR 575	TE 16	ETL 4	FAT	288 x 192	1 nex	BW 31	f eff 1, clc ann sup 1	
Optional Post contrast																
+C	ax T1 dk fat	2d FSE-XL	TRf, Fast	12 x 9	pfov .7	3 / .5	swap	TR 575	TE 16	ETL 4	FAT	288 x 192	2 nex	BW 31	f eff 1, clc ann sup 1	
+C	sag T1 dk fat	2d FSE-XL	TRf, Fast,	14 - 16	pfov 1	3 / .5	unswap	TR 575	TE 16	ETL 4	FAT	288 x 192	2 nex	BW 31	f eff 1, clc ann sup 1	
+C	cor T1 dk fat	2d FSE-XL	TRf, Fast,	14 - 16	pfov 1	2 / .2	unswap	TR 575	TE 16	ETL 4	FAT	288 x 224	2 nex	BW 31	f eff 1, clc ann sup 1	
WRIST: Synovitis and Erosions																
Entire wrist thru MCP joints																
				FOV	Pfov	slthk/sp	frq dir	TR	TE	ETL	TI	Sat	Matrix	Nex	BW	ADVANCED
1	3 pl loc	2d std loc	Seq, fast, NP	30 x 30	pfov 1	7 / 2	def	TR def	TE def				288x 128	2 nex		
2	Ax T1 FSE	2d FSE-XL	TRf, Fast,	14 - 16	pfov .7	3 / 1	swap	TR 575	TE 16	ETL 4			288 x 192	2 nex	BW 41	clc ann sup 1
3	Ax T2 cl fat	2d FSE-XL	TRf, Fast,	14 - 16	pfov .7	3 / 1	swap	TR 3000	TE 80	ETL 20	cl fat	288 x 224	3 nex	BW 41	f eff 1, clc ann sup 1	
4	Sag T2 cl fat	2d FSE-XL	TRf, Fast	14 - 16	pfov 1	3 / 1	unswap	TR 3000	TE 80	ETL 20	cl fat	288 x 224	3 nex	BW 41	f eff 1, clc ann sup 1	
5	Cor T1 FSE	2d FSE-XL	TRf, Fast	14 - 16	pfov 1	2 / .2	unswap	TR 575	TE 16	ETL 4			288 x 224	2 nex	BW 41	clc ann sup 1
6	Cor STIR	2d FSE-XL	TRf, Fast,	14 - 16	pfov 1	2 / .2	unswap	TR 3000	TE 44	ETL 8			288x 224	2 nex	BW 31	
7	+C Cor T1 dk fat	2d FSE-XL	TRf, Fast,	14 - 16	pfov 1	2 / .2	unswap	TR 550	TE 16	ETL 4	FAT	288 x 224	2 nex	BW 41	f eff 1, clc ann sup 1	
8	+C Ax T1 dk fat	2d FSE-XL	TRf, Fast	14 - 16	pfov .7	3 / 1	swap	TR 550	TE 16	ETL 4	FAT	288 x 192	2 nex	BW 41	f eff 1, clc ann sup 1	
9	+C Sag T1 dk fat	2d FSE-XL	TRf, Fast,	14 - 16	pfov 1	3 / 1	unswap	TR 550	TE 16	ETL 4	FAT	288 x 192	2 nex	BW 41	f eff 1, clc ann sup 1	
WRIST: Arthrogram																
				FOV	Pfov	slthk/sp	frq dir	TR	TE	ETL	TI	Sat	Matrix	Nex	BW	ADVANCED
1	+C 3 pl loc	2d std loc	Seq, fast, NP	30 x 30	pfov 1	4 / 2	def	TR def	TE def				288x 128	1 nex		
2	+C Cor T1 cl fat	2d FSE-XL	TRf, Fast,	12 x 12	pfov 1	2 / .2	unswap	TR 575	TE 20	ETL 2	cl fat	288 x 224	1 nex	BW 41	f eff 1, clc ann sup 1	
3	+C Cor T2 cl fat	2d FSE-XL	TRf, Fast,	12 x 12	pfov 1	2 / .2	unswap	TR 3000	TE 68	ETL 6	cl fat	288x 224	2 nex	BW 41	f eff 1, clc ann sup 1	
4	+C Sag T1 FSE no fat	2d FSE-XL	TRf, Fast,	12 x 12	pfov 1	3 / 1.5	unswap	TR 550	TE 20	ETL 2			288 x 224	2 nex	BW 41	clc ann sup 1
5	+C Ax T1 FSE cl fat	2d FSE-XL	TRf, Fast,	12 x 9	pfov .8	3 / .5	swap	TR 575	TE 20	ETL 2	cl fat	288 x 224	2 nex	BW 41	f eff 1, clc ann sup 1	
6	+C Ax T2 cl fat	2d FSE-XL	TRf, Fast,	12 x 9	pfov .8	3 / .5	swap	TR 3000	TE 80	ETL 20	cl fat	288x 224	3 nex	BW 41	f eff 1, clc ann sup 1	
7	+C 3d PD CUBE Fat	3D Cube	EDR, Fast, Zip 512, Zip 2, FR ARC	14 x 14	pfov 1	1/0	unswap	TR 1500	TE 30	ETL 35	fat	288 x 224	1 nex	BW 62	f eff .7, center k 70 cube enh1	
old	Cor T1 3d fat	3d SPGR		12 x 12	pfov 1	1.2 / 0	unswap	TR min full	TE 25	Flip 25	FAT	256 x 256	2 nex	BW 41		
Additional optional sequences																
	FSTIR	2d FSE-IR	Seq, ZIP 512, fast	12 x 12	1		unswp	TR 3000	TE 40	ETL 8	TI 180		288 x 224	2 nex	BW 41	
	T2 dk fat	2d FSE-XL	TRf, Fast, ZIP 512	14 x 14	1		unswp	TR 2700	TE 80	ETL 20	FAT	288 x 224	3 nex	BW 41	f eff 1, clc ann sup 1	
	T2 cl fat	2d FSE-XL	TRf, Fast, ZIP 512	14 x 14	1		unswp	TR 3000	TE 85	ETL 15	cl fat	288 x 192	3 nex	BW 41	f eff 1, clc ann sup 1	
	PD cl fat	2d FSE-XL	TRf, Fast, ZIP 512	14 x 14	1		unswp	TR 2000	TE 27	ETL 5	cl fat	288 x 224	1 nex	BW 41	f eff 1, clc ann sup 1	
	PD no fat	2d FSE-XL	TRf, Fast, ZIP 512	14 x 14	1		unswp	TR 2000	TE 20	ETL 5		288 x 224	1 nex	BW 41	clc ann sup 1	
+C	T1 dk fat	2d FSE-XL	TRf, Fast, ZIP 512	14 x 14	1		unswp	TR 575	TE 16	ETL 4	FAT	288 x 224	2 nex	BW 41	f eff 1, clc ann sup 1	

	T2* GRE	2d GRE	ZIP 512	14 x 14	1	3 / 1.5	unswp	TR 500	TE 15	Flip 20			288 x 192	3 nex	BW 41	clc ann sup 1
	Cor T1 3d dkfat	3d SPGR		12 x 12	pfov 1	1 / 0	unswap	TR 58	TE 12	Flip 10		FAT	288 x 160	1 nex	BW 15	clc ann sup 1