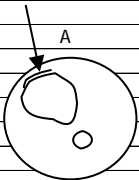

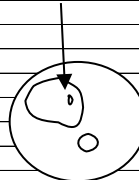
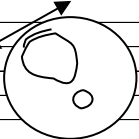
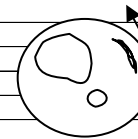
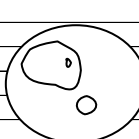

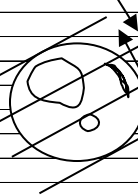
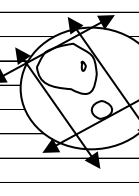


3T - 22.0 TIBIAL STRESS FX MRI - UW Madison						11/13/12 Tuite/De Smet/kar		
8ch CARDIAC COIL Place marker at point of maximal pain, or mark upper and lower area of pain				3 Examples of areas of edema				
Step 1. Sag STIR look for bright areas of edema								
Step 2. Ax T2 look for bright areas of edema								
		Through edema or above & below markers	Through edema or above & below markers	Perpendicular to edema See diagrams		Example 1	Example 2	Example 3
1	2	3	4	5	6	Periosteal reaction	Muscle tear	Stress Fx
3pl Loc	Sag IR	Ax T1	Ax T2	Oblique Long Axis T1	Oblique Long Axis T2 fat	Outside edge of bone	Soft tissue	Within bone
FGRE	FSTIR		fat					
2d	2d	2d	2d	2d	2d	Step 2. Determine direction of edema		
std loc	FSE-IR	FSE-XL	FSE-XL	FSE-XL	FSE-XL	Example 1	Example 2	Example 3
FGRE								
NP, Seq	Seq, TRF	TRf	TRf	TRf	TRf	Direction not obvious ??? direction		
Fast	ZIP 512	ZIP 512	ZIP 512	ZIP 512	ZIP 512			
TE def	TE 44	TE MF	TE 60	TE MF	TE 60			
TR def	TR 3200	TR 550	TR 4000	TR 550	TR 2000			
BW def	TI 180							
	ETL 8	ETL 4	ETL 8	ETL 4	ETL 8			
	BW 20.83	BW 20.83	BW 20.83	BW 20.83	BW 20.83			
User CV	User CV	User CV	User CV	User CV	User CV	Step 3. GRx slices long axis perpendicular to edema		
	0, 0	0, 0, 0	0, 0, 1, 0	0, 0, 0	0, 0, 1, 0	Example 1	Example 2	Example 3
			Sat fat		Sat fat			
38 x 38	38 x 22 prn	16 x 16	16 x 16	24 x 24 prn	24 x 24 prn	Periosteal reaction		
7 / 3	4 / .4	3 / 1.5	3 / 1.5	3 / Int	3 / Int	Scan thru tibia & fibula		
13 sls		44 sls	41 sls	22 sls / 2 acq	23 sls	Muscle tear		
						Scan thru entire leg		
256 x 128	256 x 192	256 x 224	256 x 224	320 x 224	256 x 224	Stress Fx within tibia		
2 nex	2 nex	2 nex	2 nex	2 nex	2 nex	Scan in both planes if unsure		
pfov 1	pfov .6 - .5 prn	pfov 1	pfov 1	pfov 1	pfov 1	Sagittal and Coronal		
	@4 min	4:16	5:12	2:20	2:52			