

THORACIC MRA PROTOCOL

(rev. 4/2009)

Need 18G antecubital IV

1. **Shim + Ax FIESTA BH** (whole chest, TR/TE3.2/1.6ms, FA60-70, matrix256, interleaved)
2. **Shim + Candy Cane FIESTA Cine ECG Gating BH** (aorta, trig delay200-400ms)
3. **Shim + Cor FIESTA Cine ECG Gating BH** (aorta, as above)
4. **Shim + Long Axis Aortic Valve FIESTA Cine ECG Gating BH** (aortic root, aortic valve)
5. **Shim + Candy Cane T1 DIR ECG Gating BH** (aorta)
6. **Optional if abnormality seen, addition scan through the area:**
 - a. Ax/Cor/Candy Cane FIESTA Cine ECG Gating
 - b. AX/Cor/Candy Cane T1 DIR ECG Gating
7. **Pre Ax LAVA** (whole chest)
8. **Pre Cor LAVA** (whole chest)
9. **Pre Cor 3D MRA Mask** (aorta)
10. **Candy Cane TRICKS** (aorta, TR/TE1.6/0.8ms, FA20-25, Slab80mm, Slice4, volumn24, matrix256, 6cc Gd @ 6cc/sec, 15cc flush)
11. **Cor TRICKS BH** (same above)
12. **Post Cor 3D MRA** (aorta, use scan delay at max enhancement on TRICKS above, 20-30cc Gd + 20 cc flush @ 2-3cc/sec)
13. **Post Ax LAVA** (whole chest)
14. **Post Cor LAVA** (whole chest)