

# MRA Renal

Updated 11/04/23

Reviewed 05/14/25

Indications: renal artery stenosis and hypertension.

FOV for the T2 HASTE/SSFSE and T1 VIBE/LAVA sequences is normal abdomen FOV.

Go to MRIMaster.com for a guide of proper positioning.

| Pulse Sequence        | PACS Name     | plane | fat sat | slice (mm) | gap (mm) | first slice |
|-----------------------|---------------|-------|---------|------------|----------|-------------|
| T2 HASTE/SSFSE        | T2 COR        | cor   | no      | 7          | 1.4      | front       |
| T2 HASTE/SSFSE        | T2 AX         | ax    | no      | 7          | 1.4      | top         |
| T2 HASTE/SSFSE        | T2 FS AX      | ax    | yes     | 7          | 1.4      | top         |
| In/Out Phase w/ DIXON | IN/OUT AX     | ax    | no      | 5          | 1        | top         |
| T1 VIBE/LAVA          | T1 FS AX      | ax    | yes     | 3.5        | 0.6      | top         |
| 3D FLASH T1           | 3D T1 PRE COR | cor   | no      | 1.35       | 0.27     | front       |
| 3D FLASH T1           | 3D T1 PRE SAG | sag   | no      | 1.35       | 0.27     | right       |

**CONTRAST** - 2 mL/sec standard dose gadolinium (0.2 mL/kg Clariscan or 0.1 mL/kg Gadavist) followed by 20 mL saline flush.

For the angio phase bolus track and trigger when contrast reaches the renal arteries.

|               |                 |     |     |      |      |       |
|---------------|-----------------|-----|-----|------|------|-------|
| 3D FLASH T1   | 3D T1 ANGIO COR | cor | no  | 1.35 | 0.27 | front |
| 3D FLASH T1   | 3D T1 ANGIO SAG | sag | no  | 1.35 | 0.27 | right |
| *T1 VIBE/LAVA | T1 FS POST AX   | ax  | yes | 3.5  | 0.6  | top   |
| *T1 VIBE/LAVA | T1 FS POST COR  | cor | yes | 3.5  | 0.6  | front |

\*The post T1 VIBE/LAVA sequences are begun just after the 3D angio sequences finish scanning.

## **RECONS:**

coronal subtractions of the angio sequence

axial and sagittal MPRs of the subtracted coronal angio sequence (3 mm thick no gap)

vertical MIP spinners of the subtracted coronal angio sequence

axial subtractions of the T1 VIBE/LAVA