

MRA Mesenteric/Portal

Updated 11/04/23

Reviewed 05/14/25

Indications: mesenteric ischemia, mesenteric artery stenosis and portal vein thrombosis.

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
T1 VIBE/LAVA	T1 FS AX	ax	yes	3.5	0.6	top
3D FLASH T1	3D T1 PRE SAG	sag	no	1.35	0.27	right
3D FLASH T1	3D T1 PRE COR	cor	no	1.35	0.27	front

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 SAG	sag	no	1.35	0.27	right
3D FLASH T1	3D T1 ANGIO COR	cor	no	1.35	0.27	front
*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:

sagittal subtractions of the angio sequence

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

horizontal and vertical MIP spinners of the subtracted sagittal angio sequence

axial subtractions of the T1 VIBE/LAVA