

MRI Lumbar Spine

Updated 02/02/21

Reviewed 05/14/25

Increase bandwidth and use IDEAL sequences if available for MARS protocol.

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

Routine Lumbar Spine:

Pulse Sequence	PACS Name	plane	fat sat	slice (mm)	gap (mm)	first slice
T1	T1 SAG	sag	no	4	1	left
T2	T2 SAG	sag	no	4	1	left
T2	T2 FS SAG	sag	yes	4	1	left
T1	T1 AX	ax	no	5	1	top
T2	T2 DISC AX	ax	no	4	0.8	top
T2	T2 AX	ax	no	5	1	top
T2	T2 FS AX	ax	yes	5	1	top

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

T1	T1 FS SAG	sag	yes	4	1	left
T1	T1 FS AX	ax	yes	5	1	top

MARS (Metal Artifact Reduction):

Pulse Sequence	PACS Name	plane	fat sat	slice (mm)	gap (mm)	first slice
T1	T1 SAG	sag	no	4	1	left
T2	T2 SAG	sag	no	4	1	left
STIR	STIR SAG	sag	no	4	1	left
T1	T1 AX	ax	no	4	1	top
T2	T2 DISC AX	ax	no	4	0.8	top
T2	T2 AX	ax	no	4	1	top
STIR	STIR AX	ax	no	5	1	top

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

T1	T1 POST SAG	sag	no	4	1	left
T1	T1 FS POST SAG	sag	yes	4	1	left
T1	T1 POST AX	ax	no	4	1	top

RECONS: (for MARS)

sagittal and axial subtractions

