

MRI Lumbar Spine

Updated 01/20/26

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

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

Routine Lumbar Spine (Without Contrast Exam):

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
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

Routine Lumbar Spine (Without & With Contrast):

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

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MARS (Metal Artifact Reduction) Exam:

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