

MRI Long Bones

Updated 11/23/23

Reviewed 05/14/25

Use this protocol for non tumor/infection indications involving the humerus, forearm, femur or tibia/fibula.

If the indication is for a focal concern, use a small field-of-view (FOV) centered on the area of interest.

Otherwise use a field-of-view (FOV) centered on the long bone with coverage as follows:

include the joints on both ends of the bone (top/bottom coverage)

include anterior and posterior soft tissues (front/back coverage)

include lateral and medial soft tissues (right/left coverage)

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

Pulse Sequence	PACS Name	plane	fat sat	slice (mm)	gap (mm)	first slice
T1	T1 AX	ax	no	6	2	top
T2	T2 FS AX	ax	yes	6	2	top
T1	T1 COR	cor	no	6	1	front
T2	T2 FS COR	cor	yes	6	1	front
T1	T1 SAG	sag	no	6	1	lateral
STIR	STIR SAG	sag	no	6	1	lateral

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 AX	ax	yes	6	2	top
T1	T1 FS POST COR	cor	yes	6	1	front
T1	T1 FS POST SAG	sag	yes	6	1	lateral