
 <b>University Health™</b>	<b>Policy #: Rad Proc 14. 14. 3</b>
<b>SUBJECT: MRI Pediatric Routine Brain</b>	<b>Effective: 10/01/2013 Reviewed:02/2015; 02/2017</b>
<b>APPROVED BY: Eduardo Gonzalez-Toledo, MD PhD</b>	<b>Page 1 of 2</b>

**Purpose: To provide MRI staff with approved protocol for performing a Pediatric routine brain MR.**

EXAM: PEDIATRIC ROUTINE BRAIN ORIENTATION: HEAD FIRST/SUPINE      Coil: HNS HEAD/STANDARD HEAD

PLANE	3 PLN LOC	CALIB.	SAG T1	AX DWI ASSET	TENSOR ASSET(AX)	SAG FLAIR CUBE	AX 3D SWAN	AX FSPGR BRAVO	AX PD/T2	AX FSPGR BRAVO C+	**AX FSPGR 3D PRE/POST
SEQ	GRE	GRE	FSE XL	SE	SE	CUBE T2 FLAIR	SWAN	BRAVO	FSE XL	BRAVO	FSPGR
MODE	2D	2D	2D	2D	2D	3D	3D	3D	2D	3D	3D
IMAGING OPTIONS	SEQ/FAST	FAST/CALIB	NONE	EPI/DIFF/ASSET	EPI/DIFF/ASSET	EDR/FAST/Irp/Z51 2/Z2/ARC	FC/FAST/ZIP2/ASSET	FAST/Irp/ASSET	FC/TRF/FAST	FAST/Irp/ASSET	EDR/FAST/Irp/ZIP2
TE			MIN FULL	MIN	MIN	MIN	50 ms		MIN FULL/90 ms+		MIN FULL
TR			400-600 ms	6000 ms	6000 ms	8000 ms	78.3 ms		2850 ms		
TI								450 ms		450 ms	
FLIP ANGLE							15	13		13	12
ETL			2			130			12-18		
BW			31.25			25.00	41.67	25.00	31.25	25.00	31.25
FOV	24	30	20	28	28	20	20	24	20	20	20
SLICE THICKNESS	10	6	4	4	4	1.8	3	1.2	4	1.2	1.2
SLICE SPACING	5	0	1	0	0	LOCS/SL 120	LOCS/SL 32	LOCS/SL 154	1.5	LOCS/SL 154	LOCS/SL 128
Frequency	256		320	128	132	224	288	256	320	256	256
Phase	128		224	128	160	224	224	256	224	256	128
NEX	1		2					1	2	1	1
PHASE FOV	1		1	1	1	0.9	1	1	0.75	1	0.75
FREQ DIR	UNSWAP	R/L	UNSWAP	UNSWAP	R/L	S/I	UNSWAP	UNSWAP	A/P	UNSWAP	A/P
FLOW COMP DIR									FREQ		
SHIM	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO	AUTO
PHASE CORRECT	OFF	OFF	OFF	ON	ON	OFF	OFF	OFF	OFF	OFF	OFF

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Note: Additional sequences may be requested at the discretion of the Radiologist monitoring the exam.

NOTES: The SAG T2 FALIR CUBE is acquired in the sagittal plane and reconstructed into the axial and coronal planes. \*\*Note, the AX FSPGR BRAVO PRE/POST cannot be acquired when utilizing the standard head coil. If this coil must be utilized, the \*\*AX FSPGR 3DPRE/POST must be included in place of the

BRAVO. The BRAVO/FSPGR 3D is acquired in the axial plane and reconstructed into the sagittal and coronal planes. Dr. Ellika prefer T2 Ax alone.

BRAVO: Keep 154 locs/sl to result in 150 images. This allows Dr. GT to perform cortex reconstructions if desired.

If the patient is unable hold still for the sag flair cube and ax pd/t2, the optional t2 flair propeller and ax t2 propeller sequences are included in the protocol on the MR system (not displayed on page 1) if needed.