

**PROTOCOL: MR TRIGEMINAL (CN 5) WWO**

**CLINICAL HISTORY/ INDICATIONS:** unilateral facial pain, trigeminal neuralgia, cranial nerve V palsy, neurovascular impingement.

**tips:**

-3D SPACE or FIESTA is the most important sequence since most neurosurgeons order this examination to evaluate neurovascular impingement of the trigeminal nerve as it exits the brainstem. This sequence alone will answer the question for 90% of studies ordered.

-Other sequences added to evaluate the trigeminal nerve as it exits the skull and course through the face (V1, V2, V3)

SCAN ORDER	PLANE	IMAGE CONTRAST/ WEIGHTING	MODE	PULSE SEQ	COVERAGE	TR RANGE	TE RANGE	TI	FLIP ANGLE	THICKNESS/G AP (mm)	Max Pixel (mm) Fr	PHASE AXIS	SEND TO PACS	Max scan time (target)	
1	AX	T2	3D	SPACE/CUBE	COVER POSTERIOR FOSSA	>1500	85-125	-	>130	1/OVLP	14-16	.4X.4	RL	FULL SERIES+ COR 1X1 MPR	6:00
1A (ALTERNATE)	AX	T2*	3D	CISS/FIESTA	COVER POSTERIOR FOSSA	VAR	VAR	-	VAR	1/OVLP	15-17	.4X.4	RL	FULL SERIES+ COR 1X1 MPR	6:00
2	COR	STIR	2D	FSE	PONS TIP OF NOSE	3000-6000	45-65	150 (1.5)/ 200 (3T)	>130	3/.3	18-20	.9X.9	RL	FULL SERIES	4:30
3	AX	T1	2D	FSE	COVER POSTERIOR FOSSA	<790	MIN FULL	-	>130	3/.3	16-18	.75X.75	RL	FULL SERIES	5:00
4	AX	DWI (b1200)	2D	EPI/ RESOLVE	COVER ENTIRE BRAIN	>4000	MIN	-	90	5/.5	24	2.5X2.5	RL	FULL SERIES + ADC MAP	3:00
<b>CONTRAST</b>															
5+C	SAG	T2FLAIR	3D	CUBE/ SPACE/ VISTA	COVER ENTIRE HEAD INCLUDING EARS	>5000	~140	VARIES	>130	1/OVLP	24-25	1.0X1.0	PA	FULL SERIES+ AX/COR 1X1 MPR	6:30
6+C	COR	T1 FS	2D	FSE	PONS TIP OF NOSE	<790	MIN FULL	-	>130	3/.3	18	1.0X1.0	RL	FULL SERIES	4:30
7+C	AX	T1 FS	2D	FSE	COVER POSTERIOR FOSSA	<790	MIN FULL	-	>130	4/.4	18	.8X.8	RL	FULL SERIES	4:00