

Protocol: adult\_neck\_MRA NECK W/WO CONTRAST

3-Plane Localizer	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
	Patient Entry	Head First	Imaging Mode	2D
	Patient Position	Supine	Pulse Sequence	Spin Echo
	Coil Configuration	GEM Head	Imaging Options	NPW, Seq, EDR, TRF, Fast, SS, ARC
	Plane	3-PLANE	<b>SCAN RANGE</b>	
	Series Description	3-Plane Localizer	FOV	32.0
	<b>SCAN TIMING</b>		Slice Thickness	10.0
	TE	80.0	Slice Spacing	5.0
	Number of Echoes	1	<b>ACQ TIMING</b>	
	TR	600.0	Freq	288
	Receiver Bandwidth	83.33	Phase	128
	<b>IMAGE ENHANCE</b>		Freq DIR	Unswap
	Filter Choice	None	# of Acq. Before Pause	0
	<b>GATING/TRIGGER</b>		Phase FOV	1.00
	Auto Trigger Type	Off	Auto Shim	Auto
	<b>FMRI</b>		Phase Correction	No
	PSD Trigger	Internal	<b>USER CVS</b>	
	View Order	Bottom/Up	User CV1	1.00
	# of Repetitions REST	0	<b>MULTI-PHASE</b>	
	# of Repetitions ACTIVE	0	Seperate Series	0
	<b>SAT</b>		Mask Phase	0
	Tag Type	None	Mask Pause	0
	<b>TRICKS</b>		<b>DIFFUSION</b>	
	Pause On/Off	On	Recon All Images	On
	Auto Subtract	0	<b>CONTRAST</b>	
Auto SCIC	Off	Contrast Yes/No	No	

3-Plane Localizer

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AXIAL 3D TOF COW	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>		AXIAL 3D TOF COW
	Patient Entry	Head First	Imaging Mode	3D	
	Patient Position	Supine	Pulse Sequence	Vasc TOF SPGR	
	Coil Configuration	GEM Head	Imaging Options	FC, EDR, ZIP2, Asset	
	Plane	OBLIQUE	<b>SCAN RANGE</b>		
	Series Description	AXIAL 3D TOF COW	FOV	24.0	
	<b>SCAN TIMING</b>		Slice Thickness	1.0	
	Flip Angle	20	Location per Slab	56	
	TE	Out of Phase	Overlap Locations	20	
	Number of Echoes	1	<b>ACQ TIMING</b>		
	TR	24.0	Freq	300	
	Receiver Bandwidth	31.25	Phase	240	
	<b>IMAGE ENHANCE</b>		Freq DIR	A/P	
	Filter Choice	C	NEX	1.00	
	<b>GATING/TRIGGER</b>		Phase FOV	0.65	
	Auto Trigger Type	Off	Auto Shim	Auto	
	<b>FMRI</b>		Phase Correction	No	
	PSD Trigger	Internal	<b>USER CVS</b>		
	View Order	Bottom/Up	User CV5	1.00	
	# of Repetitions REST	0	<b>MULTI-PHASE</b>		
	# of Repetitions ACTIVE	0	Seperate Series	0	
	<b>SAT</b>		Mask Phase	0	
	SAT Location	S	Mask Pause	0	
	Tag Type	None	<b>VASCULAR</b>		
	<b>DIFUSION</b>		# of Collapse Images	Off	
	Recon All Images	On	# of Projection Images	0	
	<b>CONTRAST</b>		Ramp Pulse	I/P/L	
	Contrast Yes/No	No	<b>TRICKS</b>		
		Pause On/Off	On		
		Auto Subtract	0		
		Auto SCIC	On		

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Ax 2D TOF FSPGR	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>		Ax 2D TOF FSPGR
	Patient Entry	Head First	Imaging Mode	2D	
	Patient Position	Supine	Pulse Sequence	Vasc TOF SPGR	
	Coil Configuration	GEM Head;GEM Neck	Imaging Options	FC, Seq, EDR, Fast	
	Plane	AXIAL	<b>SCAN RANGE</b>		
	Series Description	Ax 2D TOF FSPGR	FOV	22.0	
	<b>SCAN TIMING</b>		Slice Thickness	1.5	
	Flip Angle	80	Slice Spacing	-0.5	
	TE	Minimum	<b>ACQ TIMING</b>		
	Number of Echoes	1	Freq	256	
	TR	Minimum	Phase	160	
	Receiver Bandwidth	31.25	Freq DIR	R/L	
	<b>IMAGE ENHANCE</b>		NEX	1.00	
	Filter Choice	None	# of Acq. Before Pause	0	
	<b>GATING/TRIGGER</b>		Phase FOV	0.75	
	Auto Trigger Type	Off	Auto Shim	Auto	
	<b>FMRI</b>		Phase Correction	No	
	PSD Trigger	Internal	<b>USER CVS</b>		
	View Order	Bottom/Up	User CV4	10.00	
	# of Repetitions REST	0	<b>MULTI-PHASE</b>		
	# of Repetitions ACTIVE	0	Seperate Series	0	
	<b>SAT</b>		Mask Phase	0	
	SAT Location	S	Mask Pause	0	
	Concat SAT	1	<b>VASCULAR</b>		
	Tag Type	None	# of Collapse Images	Off	
	<b>DIFFUSION</b>		# of Projection Images	19	
	Recon All Images	On	<b>TRICKS</b>		
	<b>CONTRAST</b>		Pause On/Off	On	
Contrast Yes/No	No	Auto Subtract	0		
		Auto SCIC	2		

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*Ax T1 FS PROP FOR DISSECTION*	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
	Patient Entry	Head First	Imaging Mode	2D
	Patient Position	Supine	Pulse Sequence	PROPELLER
	Coil Configuration	GEM Spine	Imaging Options	EDR, TRF, Fast, ARC
	Plane	OBLIQUE	<b>SCAN RANGE</b>	
	Series Description	*Ax T1 FS PROP FOR DISSECTION*	FOV	22.0
	<b>SCAN TIMING</b>		Slice Thickness	4.0
	Flip Angle	110	Slice Spacing	1.0
	Number of Echoes	1	<b>ACQ TIMING</b>	
	TR	534.0	Freq	260
	Echo Train Length	5	Freq DIR	A/P
	Receiver Bandwidth	41.67	Fat Shift DIR	Normal (A)
	<b>IMAGE ENHANCE</b>		NEX	2.00
	Filter Choice	None	# of Acq. Before Pause	0
	<b>GATING/TRIGGER</b>		Auto Shim	Auto
	Auto Trigger Type	Off	Phase Correction	No
	<b>FMRI</b>		<b>USER CVS</b>	
	PSD Trigger	Internal	User CV5	1.00
	View Order	Bottom/Up	User CV15	2.00
	# of Repetitions REST	0	User CV16	1.00
# of Repetitions ACTIVE	0	User CV19	1.00	
<b>SAT</b>		TR Min	500.0	
Tag Type	None	TR Max	1000.0	
Fat/Water Saturation	Fat	<b>MULTI-PHASE</b>		
<b>TRICKS</b>		Seperate Series	0	
Pause On/Off	On	Mask Phase	0	
Auto Subtract	0	Mask Pause	0	
Auto SCIC	2	<b>DIFFUSION</b>		
		Recon All Images	On	
		<b>CONTRAST</b>		
		Contrast Yes/No	No	

\*Ax T1 FS PROP FOR DISSECTION\*

Protocol: adult\_neck\_MRA NECK W/WO CONTRAST

*Ax 3D TOF BIFURCATIONS* non-contrast	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
	Patient Entry	Head First	Imaging Mode	3D
	Patient Position	Supine	Pulse Sequence	Vasc TOF SPGR
	Coil Configuration	GEM Head;GEM Neck	Imaging Options	FC, EDR, ZIP512, ZIP2
	Plane	AXIAL	<b>SCAN RANGE</b>	
	Series Description	*Ax 3D TOF BIFURCATIONS* non-contrast	FOV	22.0
	<b>SCAN TIMING</b>		Slice Thickness	2.4
	Flip Angle	20	Location per Slab	20
	TE	Minimum	Overlap Locations	6
	Number of Echoes	1	<b>ACQ TIMING</b>	
	TR	23.0	Freq	320
	Receiver Bandwidth	20.83	Phase	192
	<b>IMAGE ENHANCE</b>		Freq DIR	R/L
	Filter Choice	None	NEX	0.85
	<b>GATING/TRIGGER</b>		Phase FOV	0.88
	Auto Trigger Type	Off	Auto Shim	Auto
	<b>FMRI</b>		Phase Correction	No
	PSD Trigger	Internal	<b>USER CVS</b>	
	View Order	Bottom/Up	User CV5	1.00
	# of Repetitions REST	0	User CV9	1.00
	# of Repetitions ACTIVE	0	<b>MULTI-PHASE</b>	
	<b>SAT</b>		Seperate Series	0
	SAT Location	S	Mask Phase	0
	Concat SAT	1	Mask Pause	0
	Tag Type	None	<b>VASCULAR</b>	
Fat/Water Saturation	Fat	# of Collapse Images	Off	
<b>DIFFUSION</b>		# of Projection Images	19	
Recon All Images	On	Ramp Pulse	I->S	
<b>CONTRAST</b>		<b>TRICKS</b>		
Contrast Yes/No	No	Pause On/Off	On	
		Auto Subtract	0	
		Auto SCIC	2	

\*Ax 3D TOF BIFURCATIONS\* non-contrast

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<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
Patient Entry	Head First	Imaging Mode	3D
Patient Position	Supine	Pulse Sequence	Vasc TOF SPGR
Coil Configuration	GEM Head;GEM Neck	Imaging Options	EDR, Fast, ZIP512, ZIP2, Fluoro, MPhVar
Plane	OBLIQUE	<b>SCAN RANGE</b>	
Series Description	3D Cor CEMRA FT MASK	FOV	32.0
<b>SCAN TIMING</b>		Slice Thickness	1.4
Flip Angle	25	Location per Slab	44
TE	Minimum	Overlap Locations	0
Number of Echoes	1	<b>ACQ TIMING</b>	
Receiver Bandwidth	31.25	Freq	384
<b>IMAGE ENHANCE</b>		Phase	224
Filter Choice	None	Freq DIR	S/I
<b>GATING/TRIGGER</b>		NEX	1.00
Auto Trigger Type	Off	Phase FOV	0.90
<b>FMRI</b>		Auto Shim	Auto
PSD Trigger	Internal	Phase Correction	No
View Order	Bottom/Up	<b>USER CVS</b>	
# of Repetitions REST	0	User CV4	1.00
# of Repetitions ACTIVE	0	User CV5	1.00
<b>SAT</b>		User CV12	1.00
Tag Type	None	User CV19	1.00
<b>DIFFUSION</b>		User CV23	100.00
Recon All Images	On	<b>MULTI-PHASE</b>	
<b>CONTRAST</b>		# of Phases	1
Contrast Yes/No	No	Seperate Series	0
		Trigger Delay without AV	1
		Mask Phase	1
		Mask Pause	1
		<b>VASCULAR</b>	
		# of Collapse Images	On
		# of Projection Images	0
		<b>TRICKS</b>	
		Pause On/Off	On
		Auto Subtract	4099
		Auto SCIC	Off
		<b>OTHERS</b>	
		Protocol Notes	Fluoro Trigger Click here to launch a video example

3D Cor CEMRA FT MASK

3D Cor CEMRA FT MASK

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3D Cor CEMRA FT NO MASK	<b>PATIENT POSITION</b>		<b>IMAGING PARAMETERS</b>	
	Patient Entry	Head First	Imaging Mode	3D
	Patient Position	Supine	Pulse Sequence	Vasc TOF SPGR
	Coil Configuration	GEM Head;GEM Neck	Imaging Options	EDR, Fast, ZIP512, ZIP2, Fluoro
	Plane	OBLIQUE	<b>SCAN RANGE</b>	
	Series Description	3D Cor CEMRA FT NO MASK	FOV	32.0
	<b>SCAN TIMING</b>		Slice Thickness	1.4
	Flip Angle	25	Location per Slab	44
	TE	Minimum	Overlap Locations	0
	Number of Echoes	1	<b>ACQ TIMING</b>	
	Receiver Bandwidth	31.25	Freq	384
	<b>IMAGE ENHANCE</b>		Phase	224
	Filter Choice	None	Freq DIR	S/I
	<b>GATING/TRIGGER</b>		NEX	1.00
	Auto Trigger Type	Off	Phase FOV	0.90
	<b>FMRI</b>		Auto Shim	Auto
	PSD Trigger	Internal	Phase Correction	No
	View Order	Bottom/Up	<b>USER CVS</b>	
	# of Repetitions REST	0	User CV5	1.00
	# of Repetitions ACTIVE	0	User CV12	1.00
	<b>SAT</b>		User CV19	1.00
	Tag Type	None	User CV23	100.00
	<b>DIFFUSION</b>		<b>MULTI-PHASE</b>	
	Recon All Images	On	Seperate Series	0
	<b>CONTRAST</b>		Trigger Delay without AV	0
	Contrast Yes/No	No	Mask Phase	0
			Mask Pause	0
			<b>VASCULAR</b>	
		# of Collapse Images	On	
		# of Projection Images	0	
		<b>TRICKS</b>		
		Pause On/Off	On	
		Auto Subtract	0	
		Auto SCIC	Off	
		<b>OTHERS</b>		
		Protocol Notes	Fluoro Trigger Click here to launch a video example	

3D Cor CEMRA FT NO MASK