

**RIH - CAROTID CT ANGIOGRAM
GE LIGHTSPEED 16 / OPTIMA CT580 PROTOCOL**

Indications: carotid artery stenosis, dissection, aneurysm.

Position/Landmark	Head first or feet first-Supine Sternal Notch				
Topogram Direction	Craniocaudal				
Respiratory Phase	Suspension				
Scan Type	Helical				
KV / mA / Rotation time (sec) Pitch / Speed (mm/rotation) Noise Index / ASiR / Dose Reduction	120kv / smart mA (100-440) / 0.5sec 1.375:1 , 27.5mm 12.00 / 20 / 20%				
Detector width x Rows = Beam Collimation	1.25mm x 16 = 20mm				
Average Tube Output	ctdi – 9.7mGy dlp – 295.6 mGy.cm				
Helical Set					
Slice Thickness/ Spacing	recon	body part	thickness/ spacing	algorithm	recon destination .
Algorithm	1	carotid cta	2.5mm x 2.5mm	standard	pacs
Recon Destination	2	thin carotids	1.2mm x .6mm	soft	for dmpr
Scan Start / End Locations	aortic arch through circle of willis				
DFOV	18cm decrease appropriately				
IV Contrast Volume / Type / Rate	80cc omni 350 / 4cc per second				
Scan Delay	Smart Prep at aortic arch				
2D/3D Technique Used	Sagittal/oblique and coronal reformats , 2.0mm x 2.0mm, average mode using DMPR. (auto-batch off), average mode, auto-transferred to PACS				
Comments:	Sagittal/oblique and coronal reformats, 2.0mm x 2.0mm, average mode using DMPR are routine for this protocol. The sagittal/oblique carotids should also include the vertebral artery.				
Images required in PACS	Scouts, 2.5mm x 2.5mm axial non contrast neck, 2.5mm x 2.5mm axial carotid cta, 2mm x 2mm left sagittal/oblique carotid, 2mm x 2mm right sagittal/oblique carotid, 2mm x 2mm coronal carotids, Dose Report				