

RIH - 3D HEAD CT GE LIGHTSPEED VCT PROTOCOL

Application: For reconstructive surgical planning. Commonly done in cases of Craniosynostosis.

Position/Landmark	Supine head first or feet first Zero at outer canthus of eye.				
Topogram Direction	Craniocaudal				
Respiratory Phase	Any				
Scan Type	Helical				
KV / mA / Rotation time (sec) Pitch / Speed (mm/rotation) Noise Index / ASiR / Dose Reduction	120kv / smart mA (50-350) / 0.5 sec 0.531:1 , 10.62mm 6.50 / 20 / 20%				
Detector width x Rows = Beam Collimation	0.625mm x 32 = 20mm				
Average Tube Output	ctdi – 51.1 mGy dlp – 872 mGy.cm				
Helical Set Slice Thickness/ Spacing Algorithm Recon Destination	<u>recon</u>	<u>body part</u>	<u>thickness/ spacing</u>	<u>algorithm</u>	<u>recon destination</u>
	1	thin brain	.6 mm x .6 mm	standard	dmpr/for 3d
	2	thin skull	.6 mm x .6 mm	bone	dmpr/for cd
Scan Start / End Locations DFOV	1cm inferior to chin 1cm superior to skull vertex 25cm decrease appropriately				
IV Contrast Volume / Type / Rate					
Scan Delay					
2D/3D Technique Used	DMPR 5mm x 5mm axial brain reformats in the glabello-meatal plane (auto-batch off), average mode, auto transferred to PACS DMPR 5mm x 5mm coronal brain reformats perpendicular to the glabello-meatal plane (auto-batch off), average mode, auto transferred to PACS DMPR 5mm x 5mm axial skull reformats in the glabello-meatal plane (auto-batch off), average mode, auto transferred to PACS Volume rendering of the skull and cranial sutures				
Comments:	Recon 1 is a thin helical set of the brain for reformats in the desired plane. Recon 2 is a thin helical set of the skull for reformats in the desired plane.				
Images required in PACS	Scouts, 5mm x 5mm axial brain, 5mm x 5mm coronal brain, 5mm x 5mm axial skull, volume rendering of the skull and cranial sutures, Dose Report				