

# CTA Chest 16 GE

Indications	trauma, acute aortic syndrome, suspected aneurysm/dissection				
Diagnostic Task	Detect aneurysms, aortic dissections and				
Scan mode	Helical				
Position/Landmark	Head first-Supine Sternal Notch S25-I350				
Topogram	AP 120kV 10mA Lat 120kV 30mA				
kVp/Reference mass	120kv Auto mA (100-440)				
Rotation time/pitch	0.5/1.375:1				
Detector Configuration	16x0.625				
Table Speed/Increment	27.5				
Dose reduction	Noise Index 21.45				
Allowed CTDI ranges*	7mGy-50mGy				
XR29 Dose Notification value	50mGy				
Helical Set 1 non con	recon	body part	thickness spacing	algorithm	recon destination
	1	chest	1.25mmx 1.25mm	standard	pac
if patient under 40 ask about non contrast images					
Helical Set 2  When super D or stereo chest	recon	body part	thickness spacing	algorithm	recon destination
	1	chest	1.25mmx 1.25mm	standard	pac/TR
	2	lung	1.25mmx 1.25mm	lung	pac
	3	sag chest	2mmx2mm	standard	pac
	4	coronal chest	2mmx2mm	standard	pac
	5	axial mip lung	10mmx2mm	standard	pac
	6	thin chest	1.25mmx1mm	standard	pac/TR
	7	MIP coronal aorta	5mmx2mm	standard	pac
8	MIP sag aorta	5mmx2mm	standard	pac	
Helical Set 3 60sec	recon	body part	thickness spacing	algorithm	recon destination
	1	chest	1.25mmx 1.25mm	standard	pac
If stent/graft, s/p TEVAR, venous evaluation					
Scan Start/end location	2cm superior to lung apices				
Diaphragm(include entire stent on delay)					
DFOV	40cm/decrease for lung recons				
IV contrast volume/type	<200lbs 80ml isovue 370 >200lbs 100ml isovue 370 @3-4ml/sec				
Performed as directed by a supervising radiologist					
Scan delay	bolus tracking in the descending aorta(level just inferior to carina)				
Initiate scan manually-enhancement threshold of 80HU					
Comments: Being able to locate the descending aorta is important.. The monitoring phase will not trigger properly and the scan will not start correctly if the roi is not placed on the correct anatomy.					
Approximate Values for CTDIvol					
	Patient size	weight(kg)	weight(lbs)	CTDIvol(mGy)	
	SMALL	50-70	110-155	4-10	
	AVERAGE	70-90	155-200	8-16	
	LARGE	90-120	200-265	14-22	
NOTE*	*The AAPM recommended NEMA XR29 Dose Notification Value for an adult torso is 50mGy. Dose Notification levels less than the AAPM recommended can be set. The maximum CTDI vol should match the dose notification value. Exams with CTDI vol values less than the minimum allowed range should not be performed unless approved by a radiologist.				

