

# CHEST CTA 64Sensation

<b>Indications</b>	trauma, acute aortic syndrome, suspected aneurysm/dissection					
<b>Diagnostic Task</b>	Detect aneurysms, aortic dissections and					
<b>Scan mode</b>	Helical					
<b>Position/Landmark</b>	Head first-Supine 1cm to shoulders/inspiration					
<b>Topogram</b>	PA 40mA 120kV					
<b>kVp/Reference mass</b>	120kv 240mas/Care Dose ON/100kv if pt under 140lbs					
<b>Rotation time/pitch</b>	0.5/pitch 0.7					
<b>Detector Configuration</b>	64x0.6					
<b>Table Speed/Increment</b>	26.88					
<b>Dose reduction</b>	CareDose 4D					
<b>Allowed CTDI ranges*</b>	7mGy-50mGy					
<b>XR29 Dose Notification value</b>	50mGy					
<b>Helical Set non contrast</b>	recon	body part	thickness spacing	kernel	window	recon destination
	1	chest	1.5mmx1.5mm	31medium smooth	mediastinum	pac
	if patient under 40 ask about non contrast images					
<b>Helical Set arterial</b>	recon	body part	thickness spacing	kernel	window	recon destination
	1	chest cta	2mmx 2mm	31medium smooth	mediastinum	pac/TR
	2	lung	1.5mmx 1.5mm	70 very sharp	lung	pac
	3	coronal chest	2mmx2mm	31medium smooth	mediastinum	pac
	4	sag chest	2mmx2mm	31medium smooth	mediastinum	pac
	5	thin chest	.6mmx.6mm	31medium smooth	mediastinum	pac/TR
	6	MIP coronal aorta	5mmx2mm	31medium smooth	mediastinum	pac
	7	MIP sag aorta	5mmx2mm	31medium smooth	mediastinum	pac
	8	axial MIP	10mmx2mm	70 very sharp	lung	pac
<b>Helical Set 60sec</b>	recon	body part	thickness spacing	kernel	window	recon destination
	1	chest	1.5mmx1.5mm	31medium smooth	mediastinum	pac
	If stent/graft, s/p TEVAR, venous evaluation					
<b>Scan start/End location</b>	2cm superior to lung apices Diaphragm(include entire stent on delay)					
<b>DFOV</b>	40cm decrease appropriately					
<b>IV contrast volume/type</b>	<200lbs 80ml isovue 370 >200lbs 100ml isovue 370 @3-4ml/sec					
	Performed as directed by the supervising radiologist					
<b>Scan delay</b>	Bolus Tracking at descending aorta(level just inferior to carina) Trigger is +100HU					
	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					
	<b>Approximate Values for CTDIvol</b>					
	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		
<b>NOTE*</b>	*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.					

