

# CTA Chest for PE 64 Sensation

<b>Indications</b>	SOB, Chest pain, cough, elevated d-dimer, hemoptysis					
<b>Diagnostic Task</b>	Detect pulmonary embolism, nodules or masses and characterize their size and shape, abnormal fluid collections in chest					
<b>Scan mode</b>	Helical					
<b>Position/Landmark</b>	feet first-Supine-inspiration-1cm superior to shoulders					
<b>Topogram</b>	AP 40mA 120kVp					
<b>kVp/Reference mass</b>	120kv 200mas/Care Dose ON/100kv if pt under 140lbs					
<b>Rotation time/pitch</b>	0.5/0.8					
<b>Detector Configuration</b>	64x0.6					
<b>Table Speed/Increment</b>	30.72					
<b>Dose reduction</b>	Care Dose					
<b>Allowed CTDI ranges*</b>	7mGy-50mGy					
<b>XR29 Dose Notification value</b>	50mGy					
<b>Helical Set</b>	recon	body part	thickness spacing	kernel	window	recon destination
	1	chest	2mmx 2mm	31medium smooth	mediastinum	pacs
	2	lung	1.5mmx 1.5mm	70very sharp	lung	pacs
	3	coronal chest	2mmx2mm	31medium smooth	mediastinum	pacs
	4	sag chest	2mmx2mm	31medium smooth	mediastinum	pacs
	5	thin chest	.75mmx.5mm	31medium smooth	mediastinum	mpr
	6	axial MIP lung	10mmx2mm	b20s smooth	lung	pacs
	7	MIP RT pulmonary art	10mmx2mm	31 medium smooth	mediastinum	pacs
	8	MIP LT pulmonary art	10mmx2mm	31 medium smooth	mediastinum	pacs
<b>Scan Start/end location</b>	2cm superior to lung apices through adrenal glands/inferior aspect of L-1					
<b>DFOV</b>	40cm/decrease for lung recons decrease appropriately for pt size					
<b>3D Technique Used</b>	<b>10x2 MIP obliques to pulmonary arteries</b>					
<b>IV contrast volume/type</b>	<b>80ml if &lt; 200lbs @4cc/sec 100ml if &gt;200lbs isovue 370 @5cc/sec</b>					
	Performed as directed by a supervising radiologist					
<b>Scan delay</b>	bolus tracking at plumonary trunk(level just inferior to carina) Trigger is +90HU					
	Comments: Being able to locate the pulmonary trunk 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.					

