

# CTA Chest for PE+AP 16 Sensation

Indications	SOB, Chest pain, cough, elevated d-dimer, hemoptysis, nausea, vomiting					
Diagnostic Task	Detect pulmonary embolism, nodules or masses and characterize their size and shape, abnormal fluid collections in chest					
Scan mode	Helical					
Position/Landmark	feet first-Supine-inspiration-1cm superior to shoulders					
Topogram	AP 50mA 120kVp					
kVp/Reference mass	120kv 240mAs/Care dose ON					
Rotation time/pitch	PE 0.5/0.95// AP 05./0.75					
Detector Configuration	16x.75					
Table Speed/Increment	PE 11.4//AP 9					
Dose reduction	Care Dose					
Allowed CTDI ranges*	7mGy-50mGy					
XR29 Dose Notification value	50mGy					
Helical Set #1	recon	body part	thickness spacing	kernel	window	recon destination
	1	chest	2mmx 2mm	31medium smooth	mediastinum	pac
	2	lung	1.5mmx 1.5mm	70very sharp	lung	pac
	3	thin chest	.75mmx.7mm	31medium smooth	mediastinum	for mpr
	4.	thin chest	.75mmx.7mm	b20f smooth	lung	for mpr
Helical Set 2 70 sec delay	recon	body part	thickness spacing	kernel	window	recon destination
	1	abd/pelvis	2mmx 2mm	31medium smooth	mediastinum	pac
	2	thin abd/pelvis	1mmx.8mm	31medium smooth	mediastinum	for mpr
	2x2 coronal and sag abd/pelvis reformats from helical set #1, recon 2					
	Scan Start					
end location	Chest-inferior aspect of L-1//AP lesser trochanter					
DFOV	45cm decrease for lungs					
3D Technique Used	2x2 coronal and sag chest reformats for recon 3,					
	10x2 angled MIP obliques to pulmonary arteries					
	10x2 axial mip lung from recon 4					
IV contrast volume/type	<200lbs 100ml isovue 370 @4cc/sec >200lbs 125ml isovue 370 @5cc/sec					
	Performed as directed by the supervising radiologist					
Scan delay	bolus tracking at plumony trunk(level just inferior to carina)//AP 70sec Trigger is +75HU					
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.						
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.					

