

# CTA Chest for PE+AP 16 Emotion

<b>Indications</b>	SOB, Chest pain, cough, elevated d-dimer, hemoptysis, nausea, vomiting					
<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 130kVp					
<b>kVp/Reference mass</b>	130kv 240mAs/Care dose ON					
<b>Rotation time/pitch</b>	PE 0.6/1.0//AP 0.6/0.8					
<b>Detector Configuration</b>	PE 16x.6// AP 16x1.2					
<b>Table Speed/Increment</b>	PE 9.6//AP 15.36					
<b>Dose reduction</b>	Care Dose					
<b>Allowed CTDI ranges*</b>	7mGy-50mGy					
<b>XR29 Dose Notification value</b>	50mGy					
<b>Helical Set #1</b>	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	coronal chest	2mmx2mm	31medium smooth	mediastinum	pac
	4	sag chest	2mmx2mm	31medium smooth	mediastinum	pac
	5	thin chest	.75mmx.5mm	31medium smooth	mediastinum	for mpr
	6	axial MIP lung	10mmx2mm	b20f smooth	lung	pac
<b>Helical Set #2 70 sec delay</b>	recon	body part	thickness spacing	kernel	window	recon destination
	1	abd/pelvis	2mmx 2mm	31medium smooth	mediastinum	pac
	2	coronal abdomen	2mmx2mm	31medium smooth	mediastinum	pac
	3	sag abdomen	2mmx2mm	31medium smooth	mediastinum	pac
<b>Scan Start</b>	Chest-2cm superior to lung apices// AP Diaphragm					
<b>end location</b>	Chest-inferior aspect of L-1//AP lesser trochanter					
<b>DFOV</b>	45cm decrease for lungs					
<b>3D Technique Used</b>	10x2 angled MIP obliques to pulmonary arteries					
<b>IV contrast volume/type</b>	<200lbs 100ml isovue 370 @4cc/sec >200lbs 125ml isovue 370 @5cc/sec					
	Performed as directed by the supervising radiologist					
<b>Scan delay</b>	bolus tracking at pulmonary trunk(level just inferior to carina) Trigger is +70HU//AP 70sec					
	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		

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.

