

# CTA Chest/Abd/Pelvis 16 Emotion

<b>Indications</b>	trauma, acute aortic syndrome, suspected aneurysm/dissection																																																												
<b>Diagnostic Task</b>	Detect aneurysms, aortic dissections																																																												
<b>Scan mode</b>	Helical																																																												
<b>Position/Landmark</b>	Head first-Supine 1cm to shoulders/inspiration																																																												
<b>Topogram</b>	AP 25mA 110kV																																																												
<b>kVp/Reference mass</b>	120kv ?mas/Care Dose ON/100kv if pt under 140lbs																																																												
<b>Rotation time/pitch</b>	0.6/pitch 0.85																																																												
<b>Detector Configuration</b>	16x1.2																																																												
<b>Table Speed/Increment</b>	16.32																																																												
<b>Dose reduction</b>	CareDose 4D																																																												
<b>Allowed CTDI ranges*</b>	7mGy-50mGy																																																												
<b>XR29 Dose Notification value</b>	50mGy																																																												
<b>Helical Set 1 non contrast</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"></td> <td style="width: 20%; text-align: center;">body</td> <td style="width: 20%; text-align: center;">thickness</td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 10%; text-align: center;">recon</td> </tr> <tr> <td style="text-align: center;">recon</td> <td style="text-align: center;">part</td> <td style="text-align: center;">spacing</td> <td style="text-align: center;">kernel</td> <td style="text-align: center;">window</td> <td style="text-align: center;">destination</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">chest</td> <td style="text-align: center;">1.5mmx1.5mm</td> <td style="text-align: center;">31medium smooth</td> <td style="text-align: center;">mediastinum</td> <td style="text-align: center;">pacs</td> </tr> </table>		body	thickness			recon	recon	part	spacing	kernel	window	destination	1	chest	1.5mmx1.5mm	31medium smooth	mediastinum	pacs																																										
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<b>Helical Set 2 arterial</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 10%;"></td> <td style="width: 20%; text-align: center;">body</td> <td style="width: 20%; text-align: center;">thickness</td> <td style="width: 20%;"></td> <td style="width: 20%;"></td> <td style="width: 10%; text-align: center;">recon</td> </tr> <tr> <td style="text-align: center;">recon</td> <td style="text-align: center;">part</td> <td style="text-align: center;">spacing</td> <td style="text-align: center;">kernel</td> <td style="text-align: center;">window</td> <td style="text-align: center;">destination</td> </tr> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">chest cta</td> <td style="text-align: center;">2mmx 2mm</td> <td style="text-align: center;">31medium smooth</td> <td style="text-align: center;">mediastinum</td> <td style="text-align: center;">pacs</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">lung</td> <td style="text-align: center;">1.5mmx 1.5mm</td> <td style="text-align: center;">70 very sharp</td> <td style="text-align: center;">lung</td> <td style="text-align: center;">pacs</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">coronal CAP</td> <td style="text-align: center;">2mmx2mm</td> <td style="text-align: center;">31medium smooth</td> <td style="text-align: center;">mediastinum</td> <td style="text-align: center;">pacs</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">sag CAP</td> <td style="text-align: center;">2mmx2mm</td> <td style="text-align: center;">31medium smooth</td> <td style="text-align: center;">mediastinum</td> <td style="text-align: center;">pacs</td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;">thin CAP</td> <td style="text-align: center;">1.5mmx.7mm</td> <td style="text-align: center;">31medium smooth</td> <td style="text-align: center;">mediastinum</td> <td style="text-align: center;">pacs/TR</td> </tr> <tr> <td style="text-align: center;">6</td> <td style="text-align: center;">MIP coronal aorta</td> <td style="text-align: center;">5mmx2mm</td> <td style="text-align: center;">31medium smooth</td> <td style="text-align: center;">mediastinum</td> <td style="text-align: center;">pacs</td> </tr> <tr> <td style="text-align: center;">7</td> <td style="text-align: center;">MIP sag aorta</td> <td style="text-align: center;">5mmx2mm</td> <td style="text-align: center;">31medium smooth</td> <td style="text-align: center;">mediastinum</td> <td style="text-align: center;">pacs</td> </tr> <tr> <td style="text-align: center;">8</td> <td style="text-align: center;">axial MIP</td> <td style="text-align: center;">10mmx2mm</td> <td style="text-align: center;">70 very sharp</td> <td style="text-align: center;">lung</td> <td style="text-align: center;">pacs</td> </tr> </table>		body	thickness			recon	recon	part	spacing	kernel	window	destination	1	chest cta	2mmx 2mm	31medium smooth	mediastinum	pacs	2	lung	1.5mmx 1.5mm	70 very sharp	lung	pacs	3	coronal CAP	2mmx2mm	31medium smooth	mediastinum	pacs	4	sag CAP	2mmx2mm	31medium smooth	mediastinum	pacs	5	thin CAP	1.5mmx.7mm	31medium smooth	mediastinum	pacs/TR	6	MIP coronal aorta	5mmx2mm	31medium smooth	mediastinum	pacs	7	MIP sag aorta	5mmx2mm	31medium smooth	mediastinum	pacs	8	axial MIP	10mmx2mm	70 very sharp	lung	pacs
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<b>Scan start</b>	NC 2cm superior to lung apices// arterial 2cm superior to lung apices																																																												
<b>End location</b>	NC through hepatic dome// arterial lesser trochanters																																																												
<b>DFOV</b>	40cm decrease appropriately																																																												
<b>IV contrast volume/type</b>	100ml isovue 370 3-4cc/sec																																																												
<b>Scan delay</b>	Bolus Tracking at descending aorta(level just inferior to carina) Trigger is +100HU																																																												
<p>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</p>																																																													

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.

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