

CTA Chest for PE GO ALL

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|-------------------------------------|--|-----------------|-------------------|--------------|-------------|-------------------|
| Indications | SOB, Chest pain, cough, elevated d-dimer, hemoptysis | | | | | |
| 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 22mA 110kVp | | | | | |
| kVp/Reference mass | 110kv 56mAs | | | | | |
| Rotation time/pitch | 0.8/1.5 | | | | | |
| Detector Configuration | 32x0.7 | | | | | |
| Table Speed/Increment | 33.6 | | | | | |
| Dose reduction | Care Dose | | | | | |
| Allowed CTDI ranges* | 7mGy-50mGy | | | | | |
| XR29 Dose Notification value | 50mGy | | | | | |
| Helical Set | recon | body part | thickness spacing | kernel | window | recon destination |
| | 1 | chest | 2mmx2mm | Br40 | mediastinum | pac |
| | 2 | sag chest | 2mmx2mm | Br40 | mediastinum | pac |
| | 3 | cor chest | 2mmx2mm | Br40 | mediastinum | pac |
| | 4 | Lung | 1mmx1mm | Br60 | lung | pac |
| | 5 | Mip Lung | 10mmx2mm | Br36 | lung | pac |
| | 6 | super D | 1mmx0.8mm | Br44 | mediastinum | pac |
| | 7 | Rt Pulm Art MIP | 10mmx2mm | Br44 | mediastinum | pac |
| | 8 | Lt Pulm Art MIP | 10mmx2mm | Br44 | mediastinum | pac |
| Scan Start/end location | 2cm superior to lung apices through adrenal glands/inferior aspect of L-1 | | | | | |
| DFOV | 45cm decrease for lungs | | | | | |
| IV contrast volume/type | 80ml if < 200lbs @4cc/sec 100ml if >200lbs isovue 370 @5cc/sec | | | | | |
| | Performed as directed by the supervising radiologist | | | | | |
| Scan delay | bolus tracking at pulmonary trunk(level just inferior to carina) Trigger is +100HU | | | | | |
| | 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. | | | | | |

