

Imaging Protocol – CT Pedi CTA Chest

PROTOCOL REVIEW 2025 01/df
Approval Imaging Council January 2025

CTDI: 0-4yr: ≤ 15mGy 5-16: ≤30mGy

PT Prep:

- IV contrast at the discretion of the Radiologist.
 - 2cc per kg of 300 mg iodine/non-ionic @ 1-2ml/s, not to exceed 100ml unless otherwise determined by Radiologist. (Omni 350 if over 50lbs) PT Positioning:

PT Positioning:

- Both arms should be raised above head for optimal image quality.
- If PT cannot raise one arm, one arm down is preferred over both arms down.
- If both arms are unable to be raised, this information should be documented in tech notes for the radiologist.

SET-UP: Supine, AP/LAT scout from above apices through the adrenal glands/mid T1.

DFOV: Appropriate for patient's body habitus.

Scan Parameters:

1. Smart prep. Place ROI over descending aorta to trigger at 140HU
2. Scan from above the apices through the adrenal glands

PACS SERIES:

1. SCOUT
2. ST AX
3. LUNG AX
4. MIP's: COR, SAG, RAO, LAO (10x2)
5. 3D if necessary
6. DOSE REPORT

Acquisition Parameters

Scan Type	HELICAL	HELICAL	HELICAL	HELICAL	HELICAL
PT Weight (lbs)	1-20.9	20.9-49.6	49.6-89.1	89.1-199.1	199.1-500
Pitch and Speed (mm/rot)	0.984:1 (140.63 mm/s)	0.992:1 (283.48mm/s)	0.992:1 (283.48 mm/s)	0.992:1 (79.38mm/s)	0.992:1 (79.38mm/s)
Detector Coverage	40	80	80	80	80
Thick	1.25	1.25	1.25	1.25	1.25
Speed	0.28	0.28	0.28	1.00	1.00
Noise Index	11.9	14.7	19	22.3	22.3

PT BODY SIZE	1-20.9 lbs	20.9-49.6 lbs	49.6-89.1 lbs	89.1-199.1 lbs	199.1-500
Scan FOV	PED BODY	SM BODY	MED BODY	LG BODY	LG BODY
Smart mA Range *smart mA + ODM*	10-500*	10-550*	10-550*	50-550*	50-550*
kVp *kV assist*	80	100	100	120	120

Reconstruction Parameters

RECON 1 (Soft Tissue)	
Algorithm	Std
ASIR	50%
Recon Type	Helical Full
Slice Thickness	1.25
Increment	1.25
RECON 2 (Lung)	
Algorithm	Lung
ASIR	50%
Recon Type	Helical Full
Slice Thickness	1.25
Increment	1.25
RECON 3 (thins for Reformats)	
Algorithm	STND
ASIR	50%
Recon Type	Helical Plus
Slice Thickness	0.625mm
Increment	0.3125mm