

Chest HRCT

Siemens 16 Slice

Application Examples: ILD, bronchiectasis, asbestosis

Oral Contrast

No

IV Contrast / Volume

No

Technical Factors

Inspiration, Expiration & Prone	
Scan Type	Spiral
Detector Collimator	Acq 16 x 0.6 mm
kV / mAs / Rotation Time (seconds)	110 kV / 130 mAs / 0.6
Care Dose 4D	On
Pitch	1.2
Typical CTDIvol	10.42 mGy

Topogram: AP, 512 mm

Inspiration	Width / Increment	Kernel	Window	Series Description	Networking
Recon 1	5x5	B30s	Mediastinum	AXIAL	PACS
Recon 2	1x1	B70	Lung	AXIAL LUNG	PACS
Recon 3	1x10	B80s	HRCT	AXIAL INSPIRATION	PACS
Recon 4	1 x 0.8	B70	Lung	AXIAL 1.0 x 0.8	MIP Thin/TeraRecon

Topogram: AP, 512 mm

Expiration	Width / Increment	Kernel	Window	Series Description	Networking
Recon 1	1x30	B80s	HRCT	AXIAL EXPIRATION	PACS

Topogram: AP, 512 mm

Prone	Width / Increment	Kernel	Window	Series Description	Networking
Recon 1	1x10	B80s	HRCT	AXIAL PRONE	PACS

This protocol is in spiral mode and used for high resolution studies—For example, interstitial changes in the lungs.

Scan Instructions: First, position the patient lying supine with arms above head. Scan through entire lungs with patient holding their breath on *inspiration*. Then, scan lungs with patient holding their breath on *expiration*. Next, change the scan orientation to prone. Position patient prone and take AP topogram. Last, scan the lower half of the lungs on inspiration.

Patient Position: Series 1 and 2: Patient lying supine with arms above head.
Series 3: Patient prone with arms above head.

Scan Instructions: Series 1: Hold breath on *inspiration*
Series 2: Hold breath on **forced expiration**
Series 3: Hold breath on *inspiration*

Scan Range: Series 1 and 2: Entire lungs
Series 3: Lower half of lungs

Recons: Adjust FoV to fit body contour.

Reformations: Post processing done in 3D card.

Series: Chest	Reformat Type	Width / Increment	Window	Series Description	Networking
Recon 4	Axial MIP	8 x 5	Lung	AXIAL MIP	PACS
Recon 4	Sagittal MPR	3 x 3	Mediastinum	SAG	PACS

Note: This protocol is set to scan caudocranial to help prevent diaphragm motion; however, images reconstruct craniocaudal. Be sure to practice the breathing instructions with the patient for each series before scanning especially for the forced expiration series. A good breath hold is crucial to the quality of this exam.