

CT Chest VIDA Airflow

Updated
5/1/2024

Indications - pre procedural imaging prior to endoscopic lung volume reduction and will be ordered specifically as VIDA Airflow protocol by Pulmonology.
Use CT Chest without Contrast charge.

GENERAL SCAN NOTES

The patient's arms must be over his/her head.

Remove any metal from the imaging field of view.

Have the patient cough a few times to clear secretions. This reduces incidence of small lung nodules.

Topogram - lung apices through diaphragm (obtained during end inspiration).

Craniocaudal scan coverage - lung apices through adrenal glands (obtained during **maximum** end inspiration).

Adjust FOV (field of view) on topogram to smallest without cropping anatomy.

Technique (mAs, kV, etc) and FOV must be the same for every scan for a given patient.

See end of protocol for requirements for the **axial thins** recons.

IV Contrast: not given for this protocol.

SIEMENS PARAMETERS & RECONS

	Scan Mode	kV	Eff mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	90/110/160	off	NA	1.00	16	0.75	0.5	12.5
Go Up 32	spiral	110	90/110/160	off	off	1.20	32	0.75	0.8	8.3
Sensation 64	spiral	120	80/100/150	off	NA	1.00	64	0.6	0.5	7.8
Definition 64	spiral	120	80/100/150	off	off	1.00	64	0.6	0.5	7.8
Go Top 64	spiral	120	80/100/150	off	off	1.00	64	0.6	0.5	3.9
Drive 128	spiral	120	100/125/180	off	off	1.00	128	0.6	0.5	3.9
Force 192	spiral	120	100/125/180	off	off	1.00	128	0.6	0.5	3.9

Use lower mAs for BMI <20, mid mAs for BMI 20-30 and higher mAs for BMI >30.

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX LUNG	3.0	3.0	Br57 / B70f	lung	none	head/feet
AX SOFT	3.0	3.0	Br40 / B41f	mediastinum	none	head/feet
COR SOFT	3.0	3.0	Br40 / B41f	mediastinum	none	front/back
SAG SOFT	3.0	3.0	Br40 / B41f	mediastinum	none	left/right
TLC INSP 1	0.75	0.5	Qr36f / B35f	mediastinum	none	head/feet
TLC INSP 2	0.75	0.5	Br46f / B45f	mediastinum	none	head/feet
AX MIPS	8.0	3.0	Br40 / B41f	lung	none	head/feet

VIDA specific recons.

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GE PARAMETERS & RECONS

	Scan Type	SFOV	kV	Manual mA	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	145/180/270	off	0.625	20	1.375	27.50	0.5	NA	NA	5.5
Opt 540	helical	large	120	145/180/270	off	0.625	20	1.375	27.50	0.5	NA	NA	5.5
LS VCT 64	helical	large body	120	145/180/270	off	0.625	40	0.984	39.37	0.5	off	none	3.8
Disc VCT 64	helical	large body	120	145/180/270	off	0.625	40	0.984	39.37	0.5	NA	NA	3.8

Use lower mAs for BMI <20, mid mAs for BMI 20-30 and higher mAs for BMI >30.

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
TLC INSP	0.625	0.5	std full	400/40	head/feet
AX LUNG	2.5	2.5	lung	1600/-600	head/feet
AX SOFT	2.5	2.5	std full	400/40	head/feet
COR SOFT	2.5	2.5	std full	400/40	front/back
SAG SOFT	2.5	2.5	std full	400/40	left/right
AX MIPS	8.0	3.0	std full	1600/-600	head/feet

**This must be the first recon.
VIDA specific recon.**

PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	mA	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	105/130/190	off	0.923	64	0.625	0.5	4.1

Use lower mAs for BMI <20, mid mAs for BMI 20-30 and higher mAs for BMI >30.

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX LUNG	3.0	3.0	YA	lung	none	head/feet
AX SOFT	3.0	3.0	B	mediastinum	none	head/feet
COR SOFT	3.0	3.0	B	mediastinum	none	front/back
SAG SOFT	3.0	3.0	B	mediastinum	none	left/right
TLC INSP	0.75	0.5	B	mediastinum	none	head/feet
AX MIPS	8.0	2.0	B	lung	none	head/feet

VIDA specific recon.

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For the Axial TLC Thins recons:

The cranial/top image should begin 1-2 slices above the top of both lungs.

The caudal/bottom image should stop 1-2 slices below the bottom of both lungs.

The FOV of the transverse/axial plane should tightly fit the lungs (outer rib to outer rib at widest part of the chest).

