

# CT Chest Routine

Updated  
5/1/2024

Indications - cough, shortness of breath, chest pain, infection, pneumonia, hemoptysis, dyspnea, lung nodule, lung mass, abnormal chest radiograph, etc.

## GENERAL SCAN NOTES

Move the patient's arms over his/her head if possible. 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 end inspiration).

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

IV Contrast: 100 mL Omnipaque-300, inject at 2 mL/sec, 30 secs scan delay.

For **GE scanners**, it is essential for the 1st recon thickness on the scanner to match the 1st recon thickness in this protocol book for the prescribed Noise Index to be valid. The 1st recon should generally be the thickest recon in the protocol.

## SIEMENS PARAMETERS & RECONS

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	100	on	NA	1.15	16	0.75	0.5	10.9
Go Up 32	spiral	130	51	on	on 80	1.50	32	0.7	0.8	7.1
Sensation 64	spiral	120	100	on	NA	1.40	64	0.6	0.5	5.6
Definition 64	spiral	120	110	on	on	1.20	64	0.6	0.5	6.5
Go Top 64	spiral	120	62	on	on 80	1.20	64	0.6	0.33	2.1
Drive 128	spiral	120	66	on	on	1.20	128	0.6	0.5	3.3
Force 192	spiral	110	51	on	on	1.20	192	0.5	0.5	2.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX LUNG	3.0	3.0	B157 / B70f	lung	3	head/feet
AX SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	left/right
AX THINS	1.0	0.8	Br40 / B41f	mediastinum	3	head/feet
AX MIPS	8.0	3.0	Br40 / B41f	lung	3	head/feet

Send the above recons on the pre contrast scan (if without only) or on the post contrast scan (if IV given).

Send only the following recon on the pre contrast scan (if without and with).

AX SOFT PRE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
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# CT Chest Routine

## GE PARAMETERS & RECONS

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
Opt 540	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
LS VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	50	50	2.2
Disc VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	NA	NA	2.2

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
<b>AX LUNG</b>	<b>2.5</b>	<b>2.5</b>	<b>lung</b>	<b>1600/-600</b>	<b>head/feet</b>
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 THINS	1.25	1.0	std full	400/40	head/feet
AX MIPS	8.0	3.0	std full	1600/-600	head/feet

**Must be first recon.**

Send the above recons on the pre contrast scan (if without only) or on the post contrast scan (if IV given).

Send only the following recon on the pre contrast scan (if without and with).

AX SOFT PRE	2.5	2.5	std full	400/40	head/feet
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## PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	92	19	on	1.00	64	0.625	0.75	5.6

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX LUNG	3.0	3.0	YA	lung	3	head/feet
AX SOFT	3.0	3.0	B	mediastinum	3	head/feet
COR SOFT	3.0	3.0	B	mediastinum	3	front/back
SAG SOFT	3.0	3.0	B	mediastinum	3	left/right
AX THINS	1.0	0.75	B	mediastinum	3	head/feet
AX MIPS	8.0	2.0	B	lung	3	head/feet

Send the above recons on the pre contrast scan (if without only) or on the post contrast scan (if IV given).

Send only the following recon on the pre contrast scan (if without and with).

AX SOFT PRE	3.0	3.0	B	mediastinum	3	head/feet
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# CT Chest Low-Dose

Updated  
5/1/2024

Use this protocol when ordered/protocolled as low-dose, when recommended on a prior CT report or when a screening CT patient doesn't meet screening criteria.

This protocol's dose is intermediate between a screening chest dose and a routine chest dose.

Use regular CT chest charges. Do not use CT Lung RADS Screening / Follow-up charge.

## GENERAL SCAN NOTES

Move the patient's arms over his/her head if possible. 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 end inspiration).

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

Recons are the same as routine chest protocol.

IV Contrast: 100 mL Omnipaque-300, inject at 2 mL/sec, 30 secs scan delay.

For **GE scanners**, it is essential for the 1st recon thickness on the scanner to match the 1st recon thickness in this protocol book for the prescribed Noise Index to be valid. The 1st recon should generally be the thickest recon in the protocol.

## SIEMENS PARAMETERS & RECONS

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	<b>60</b>	on	NA	1.15	16	0.75	0.5	10.9
Go Up 32	spiral	130	<b>31</b>	on	on 80	1.50	32	0.7	0.8	7.1
Sensation 64	spiral	120	<b>60</b>	on	NA	1.40	64	0.6	0.5	5.6
Definition 64	spiral	120	<b>66</b>	on	on	1.20	64	0.6	0.5	6.5
Go Top 64	spiral	120	<b>37</b>	on	on 80	1.20	64	0.6	0.33	2.1
Drive 128	spiral	120	<b>40</b>	on	on	1.20	128	0.6	0.5	3.3
Force 192	spiral	110	<b>31</b>	on	on	1.20	192	0.5	0.5	2.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX LUNG	3.0	3.0	Bl57 / B70f	lung	3	head/feet
AX SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	left/right
AX THINS	1.0	0.8	Br40 / B41f	mediastinum	3	head/feet
AX MIPS	8.0	3.0	Br40 / B41f	lung	3	head/feet

Send the above recons on the pre contrast scan (if without only) or on the post contrast scan (if IV given).

Send only the following recon on the pre contrast scan (if without and with).

AX SOFT PRE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
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# CT Chest Low-Dose

## GE PARAMETERS & RECONS

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	100-300	25.46	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
Opt 540	helical	large	120	100-300	25.46	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
LS VCT 64	helical	large body	120	50-300	25.46	on	2.5	40	0.984	39.375	0.5	30	70	3.8
Disc VCT 64	helical	large body	120	50-300	25.46	on	2.5	40	0.984	39.375	0.5	NA	NA	3.8

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
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 THINS	1.25	1.0	std full	400/40	head/feet
AX MIPS	8.0	3.0	std full	1600/-600	head/feet

**Must be first recon.**

Send the above recons on the pre contrast scan (if without only) or on the post contrast scan (if IV given).

Send only the following recon on the pre contrast scan (if without and with).

AX SOFT PRE	2.5	2.5	std full	400/40	head/feet
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## PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	55	19	on	1.00	64	0.625	0.75	5.6

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX LUNG	3.0	3.0	YA	lung	3	head/feet
AX SOFT	3.0	3.0	B	mediastinum	3	head/feet
COR SOFT	3.0	3.0	B	mediastinum	3	front/back
SAG SOFT	3.0	3.0	B	mediastinum	3	left/right
AX THINS	1.0	0.75	B	mediastinum	3	head/feet
AX MIPS	8.0	2.0	B	lung	3	head/feet

Send the above recons on the pre contrast scan (if without only) or on the post contrast scan (if IV given).

Send only the following recon on the pre contrast scan (if without and with).

AX SOFT PRE	3.0	3.0	B	mediastinum	3	head/feet
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# CT Chest Screening

Updated  
5/1/2024

Indications - lung cancer screening **only** in patients who meet criteria (see patient questionnaire) and follow-up of prior screening CT (unless prior report indications a routine or low-dose protocol).

If patient doesn't meet screening criteria, use the low-dose protocol and use CT Chest w/o Contrast charge.

Per ACR guidelines, this exam should have a CTDI of less than 3.00 mGy for a normal size patient.

Use CT Lung RADS for Screening Follow-up charge.

## GENERAL SCAN NOTES

Move the patient's arms over his/her head if possible. 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 **lung bases** (obtained during end inspiration).

Do not image through adrenal glands as is done with routine chest CT.

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

Recons are the same as routine chest protocol.

IV Contrast: not given for this protocol.

For **GE scanners**, it is essential for the 1st recon thickness on the scanner to match the 1st recon thickness in this protocol book for the prescribed Noise Index to be valid. The 1st recon should generally be the thickest recon in the protocol.

## SIEMENS PARAMETERS & RECONS

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	<b>25</b>	on	NA	<b>1.15</b>	16	0.75	0.5	10.9
Go Up 32	spiral	Sn110	<b>62</b>	on	on 15	0.80	32	0.7	0.8	13.4
Sensation 64	spiral	120	<b>25</b>	on	NA	1.40	64	0.6	0.5	5.6
Definition 64	spiral	120	<b>28</b>	on	on	1.20	64	0.6	0.5	6.5
Go Top 64	spiral	Sn100	<b>179</b>	on	on 15	0.80	64	0.6	0.33	3.2
Drive 128	spiral	120	<b>20</b>	on	on	1.20	128	0.6	0.5	3.3
Force 192	spiral	Sn100	<b>101</b>	on	on	1.20	192	0.6	0.5	2.2

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX LUNG	3.0	3.0	B157 / B70f	lung	3	head/feet
AX SOFT	<b>3.0</b>	<b>3.0</b>	Br40 / B41f	mediastinum	3	head/feet
COR SOFT	<b>3.0</b>	<b>3.0</b>	Br40 / B41f	mediastinum	3	front/back
SAG SOFT	<b>3.0</b>	<b>3.0</b>	Br40 / B41f	mediastinum	3	left/right
AX THINS	1.0	0.8	Br40 / B41f	mediastinum	3	head/feet
AX MIPS	8.0	3.0	Br40 / B41f	lung	3	head/feet

# CT Chest Screening

## GE PARAMETERS & RECONS

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	40-130	29.50	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
Opt 540	helical	large	120	40-130	29.50	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
LS VCT 64	helical	large body	120	30-110	34.00	on	2.5	40	0.984	39.375	0.5	0	70	3.8
Disc VCT 64	helical	large body	120	30-110	34.00	on	2.5	40	0.984	39.375	0.5	0	70	3.8

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
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 THINS	1.25	1.0	std full	400/40	head/feet
AX MIPS	8.0	3.0	std full	1600/-600	head/feet

**Must be first recon.**

## PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	23	19	on	1.00	64	0.625	0.75	5.6

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX LUNG	3.0	3.0	YA	lung	3	head/feet
AX SOFT	3.0	3.0	B	mediastinum	3	head/feet
COR SOFT	3.0	3.0	B	mediastinum	3	front/back
SAG SOFT	3.0	3.0	B	mediastinum	3	left/right
AX THINS	1.0	0.75	B	mediastinum	3	head/feet
AX MIPS	8.0	2.0	B	lung	3	head/feet

# **CT Chest High-Res Routine**

Updated  
5/1/2024

The following history/indications trigger a routine HRCT protocol whether or not ordered as HRCT: interstitial lung disease (ILD), pulmonary fibrosis, interstitial pulmonary fibrosis (IPF), usual interstitial pneumonitis (UIP), nonspecific interstitial pneumonitis (NSIP), bronchiectasis, asbestosis, sarcoidosis, hypersensitivity pneumonitis, connective tissue disease, rheumatoid, scleroderma and pneumoconiosis.

Use this routine HRCT protocol unless instructed to use the full HRCT protocol.

Use CT chest HRCT charges. Do not use regular CT chest charges.

## **GENERAL SCAN NOTES**

Move the patient's arms over his/her head if possible. 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 end inspiration).

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

Scan parameters are the same as routine chest protocol.

IV Contrast: 100 mL Omnipaque-300, inject at 2 mL/sec, 30 secs scan delay.

For GE scanners, it is essential for the 1st recon thickness on the scanner to match the 1st recon thickness in this protocol book for the prescribed Noise Index to be valid. The 1st recon should generally be the thickest recon in the protocol.

# CT Chest High-Res Routine

## SIEMENS PARAMETERS & RECONS

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	100	on	NA	1.15	16	0.75	0.5	10.9
Go Up 32	spiral	130	51	on	on 80	1.50	32	0.7	0.8	7.1
Sensation 64	spiral	120	100	on	NA	1.40	64	0.6	0.5	5.6
Definition 64	spiral	120	110	on	on	1.20	64	0.6	0.5	6.5
Go Top 64	spiral	120	62	on	on 80	1.20	64	0.6	0.33	2.1
Drive 128	spiral	120	66	on	on	1.20	128	0.6	0.5	3.3
Force 192	spiral	110	51	on	on	1.20	192	0.5	0.5	2.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX LUNG	3.0	3.0	B157 / B70f	lung	3	head/feet
AX SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	left/right
AX HRCT	1.0	5.0	B157 / B70f	lung	3	head/feet
COR HRCT	1.0	5.0	B157 / B70f	lung	3	front/back
AX THINS	1.0	0.8	Br40 / B41f	mediastinum	3	head/feet
AX MIPS	8.0	3.0	Br40 / B41f	lung	3	head/feet

Send the above recons on the pre contrast scan (if without only) or on the post contrast scan (if IV given).

Send only the following recon on the pre contrast scan (if without and with).

AX SOFT PRE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
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# CT Chest High-Res Routine

## GE PARAMETERS & RECONS

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
Opt 540	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
LS VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	50	50	2.2
Disc VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	NA	NA	2.2

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
<b>AX LUNG</b>	<b>2.5</b>	<b>2.5</b>	<b>lung</b>	<b>1600/-600</b>	<b>head/feet</b>
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 HRCT	1.25	5.0	bone plus full	1600/-600	head/feet
COR HRCT	1.25	5.0	bone plus full	1600/-600	front/back
AX THINS	1.25	1.0	std full	400/40	head/feet
AX MIPS	8.0	3.0	std full	1600/-600	head/feet

**Must be first recon.**

Send the above recons on the pre contrast scan (if without only) or on the post contrast scan (if IV given).

Send only the following recon on the pre contrast scan (if without and with).

AX SOFT PRE	2.5	2.5	std full	400/40	head/feet
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# CT Chest High-Res Routine

## PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	92	19	on	1.00	64	0.625	0.75	5.6

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX LUNG	3.0	3.0	YA	lung	3	head/feet
AX SOFT	3.0	3.0	B	mediastinum	3	head/feet
COR SOFT	3.0	3.0	B	mediastinum	3	front/back
SAG SOFT	3.0	3.0	B	mediastinum	3	left/right
AX HRCT	1.0	5.0	YA	lung	3	head/feet
COR HRCT	1.0	5.0	YA	lung	3	front/back
AX THINS	1.0	0.75	B	mediastinum	3	head/feet
AX MIPS	8.0	2.0	B	lung	3	head/feet

Send the above recons on the pre contrast scan (if without only) or on the post contrast scan (if IV given).

Send only the following recon on the pre contrast scan (if without and with).

AX SOFT PRE	3.0	3.0	B	mediastinum	3	head/feet
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# **CT Chest High-Res Full**

Updated  
5/1/2024

Indications - interstitial lung disease (ILD), pulmonary fibrosis, interstitial pulmonary fibrosis (IPF), usual interstitial pneumonitis (UIP), nonspecific interstitial pneumonitis (NSIP), bronchiectasis, asbestosis, sarcoidosis, hypersensitivity pneumonitis, connective tissue disease, rheumatoid, scleroderma and pneumoconiosis.

**Only use** this full HRCT protocol if ordered as full HRCT or protocolled by rad.

Use CT chest HRCT charges. Do not use regular CT chest charges.

## **GENERAL SCAN NOTES**

Move the patient's arms over his/her head if possible. 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:

Supine end inspiration phase - **lung apices** through **adrenal glands** (obtained during end inspiration).

Supine end expiration phase - **lung apices** through **diaphragm** (obtained during end inspiration).

Prone end inspiration phase - **carina** through **diaphragm** (obtained during end inspiration).

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

Scan parameters for the supine end inspiratory phase are the same as routine chest protocol.

Scan parameters for the supine end expiratory and prone end inspiratory phases are the same as low-dose chest protocol.

IV Contrast: 100 mL Omnipaque-300, inject at 2 mL/sec, 30 secs scan delay.

For **GE scanners**, it is essential for the 1st recon thickness on the scanner to match the 1st recon thickness in this protocol book for the prescribed Noise Index to be valid. The 1st recon should generally be the thickest recon in the protocol.

# CT Chest High-Res Full

## SIEMENS PARAMETERS & RECONS

For the Supine End Inspiration phase:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	100	on	NA	1.15	16	0.75	0.5	10.9
Go Up 32	spiral	130	51	on	on 80	1.50	32	0.7	0.8	7.1
Sensation 64	spiral	120	100	on	NA	1.40	64	0.6	0.5	5.6
Definition 64	spiral	120	110	on	on	1.20	64	0.6	0.5	6.5
Go Top 64	spiral	120	62	on	on 80	1.20	64	0.6	0.33	2.1
Drive 128	spiral	120	66	on	on	1.20	128	0.6	0.5	3.3
Force 192	spiral	110	51	on	on	1.20	192	0.5	0.5	2.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX INSP LUNG	3.0	3.0	Bl57 / B70f	lung	3	head/feet
AX INSP SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR INSP SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG INSP SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	left/right
AX INSP HRCT	1.0	5.0	Bl57 / B70f	lung	3	head/feet
COR INSP HRCT	1.0	5.0	Bl57 / B70f	lung	3	front/back
AX INSP THINS	1.0	0.8	Br40 / B41f	mediastinum	3	head/feet
AX INSP MIPS	8.0	3.0	Br40 / B41f	lung	3	head/feet

For the Supine End Expiration and Prone End Inspiration phases:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	<b>60</b>	on	NA	1.15	16	0.75	0.5	10.9
Go Up 32	spiral	130	<b>31</b>	on	on 80	1.50	32	0.7	0.8	7.1
Sensation 64	spiral	120	<b>60</b>	on	NA	1.40	64	0.6	0.5	5.6
Definition 64	spiral	120	<b>66</b>	on	on	1.20	64	0.6	0.5	6.5
Go Top 64	spiral	120	<b>37</b>	on	on 80	1.20	64	0.6	0.33	2.1
Drive 128	spiral	120	<b>40</b>	on	on	1.20	128	0.6	0.5	3.3
Force 192	spiral	110	<b>31</b>	on	on	1.20	192	0.5	0.5	2.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX EXP HRCT	1.0	5.0	Bl57 / B70f	lung	3	head/feet
AX PRONE HRCT	1.0	5.0	Bl57 / B70f	lung	3	head/feet

# CT Chest High-Res Full

## GE PARAMETERS & RECONS

For the Supine End Inspiration phase:

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
Opt 540	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
LS VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	50	50	2.2
Disc VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	NA	NA	2.2

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
<b>AX INSP LUNG</b>	<b>2.5</b>	<b>2.5</b>	<b>lung</b>	<b>1600/-600</b>	<b>head/feet</b>
AX INSP SOFT	2.5	2.5	std full	400/40	head/feet
COR INSP SOFT	2.5	2.5	std full	400/40	front/back
SAG INSP SOFT	2.5	2.5	std full	400/40	left/right
AX INSP HRCT	1.25	5.0	bone plus full	1600/-600	head/feet
COR INSP HRCT	1.25	5.0	bone plus full	1600/-600	front/back
AX INSP THINS	1.25	1.0	std full	400/40	head/feet
AX INSP MIPS	8.0	3.0	std full	1600/-600	head/feet

**Must be first recon.**

For the Supine End Expiration and Prone End Inspiration phases:

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	100-300	36.20	on	1.25	20	1.375	27.50	0.5	NA	NA	5.5
Opt 540	helical	large	120	100-300	36.20	on	1.25	20	1.375	27.50	0.5	NA	NA	5.5
LS VCT 64	helical	large body	120	50-300	36.01	on	1.25	40	0.984	39.375	0.5	30	70	3.8
Disc VCT 64	helical	large body	120	50-300	36.01	on	1.25	40	0.984	39.375	0.5	NA	NA	3.8

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
<b>AX EXP HRCT</b>	<b>1.25</b>	<b>5.0</b>	<b>bone plus full</b>	<b>1600/-600</b>	<b>head/feet</b>
AX PRONE HRCT	1.25	5.0	bone plus full	1600/-600	head/feet

**Must be first recon.**

# CT Chest High-Res Full

## PHILIPS PARAMETERS & RECONS

For the Supine End Inspiration phase:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	92	19	on	1.00	64	0.625	0.75	5.6

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX INSP LUNG	3.0	3.0	YA	lung	3	head/feet
AX INSP SOFT	3.0	3.0	B	mediastinum	3	head/feet
COR INSP SOFT	3.0	3.0	B	mediastinum	3	front/back
SAG INSP SOFT	3.0	3.0	B	mediastinum	3	left/right
AX INSP HRCT	1.0	5.0	YA	lung	3	head/feet
COR INSP HRCT	1.0	5.0	YA	lung	3	front/back
AX INSP THINS	1.0	0.75	B	mediastinum	3	head/feet
AX INSP MIPS	8.0	2.0	B	lung	3	head/feet

For the Supine End Expiration and Prone End Inspiration phases:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	55	19	on	1.00	64	0.625	0.75	5.6

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX EXP HRCT	1.0	5.0	YA	lung	3	head/feet
AX PRONE HRCT	1.0	5.0	YA	lung	3	head/feet

# **CT Chest Teton High-Res**

Updated  
5/1/2024

Indication - interstitial pulmonary fibrosis (IPF).

Use CT chest HRCT without Contrast charge. Do not use regular CT chest charge.

## **GENERAL SCAN NOTES**

Move the patient's arms over his/her head if possible. 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 on both phases (obtained during end inspiration).

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

Scan parameters for the supine end inspiratory phase are the same as routine chest protocol.

Scan parameters for the supine end expiratory phase are the same as low-dose chest protocol.

IV Contrast: not given for this protocol.

For **GE scanners**, it is essential for the 1st recon thickness on the scanner to match the 1st recon thickness in this protocol book for the prescribed Noise Index to be valid. The 1st recon should generally be the thickest recon in the protocol.

# CT Chest Teton High-Res

## SIEMENS PARAMETERS & RECONS

For the Supine End Inspiration phase:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	100	on	NA	1.15	16	0.75	0.5	10.9
Go Up 32	spiral	130	51	on	on 80	1.50	32	0.7	0.8	7.1
Sensation 64	spiral	120	100	on	NA	1.40	64	0.6	0.5	5.6
Definition 64	spiral	120	110	on	on	1.20	64	0.6	0.5	6.5
Go Top 64	spiral	120	62	on	on 80	1.20	64	0.6	0.33	2.1
Drive 128	spiral	120	66	on	on	1.20	128	0.6	0.5	3.3
Force 192	spiral	110	51	on	on	1.20	192	0.5	0.5	2.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX INSP LUNG	3.0	3.0	Br57 / B70f	lung	3	head/feet
AX INSP SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR INSP SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG INSP SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	left/right
<b>AX INSP HRCT</b>	<b>1.0</b>	<b>0.8</b>	<b>BI57 / B80f</b>	<b>lung</b>	<b>3</b>	<b>head/feet</b>
COR INSP HRCT	1.0	5.0	Br57 / B70f	lung	3	front/back
AX INSP MIPS	8.0	3.0	Br40 / B41f	lung	3	head/feet

**Teton specific recon.**

For the Supine End Expiration phase:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	<b>60</b>	on	NA	1.15	16	0.75	0.5	10.9
Go Up 32	spiral	130	<b>31</b>	on	on 80	1.50	32	0.7	0.8	7.1
Sensation 64	spiral	120	<b>60</b>	on	NA	1.40	64	0.6	0.5	5.6
Definition 64	spiral	120	<b>66</b>	on	on	1.20	64	0.6	0.5	6.5
Go Top 64	spiral	120	<b>37</b>	on	on 80	1.20	64	0.6	0.33	2.1
Drive 128	spiral	120	<b>40</b>	on	on	1.20	128	0.6	0.5	3.3
Force 192	spiral	110	<b>31</b>	on	on	1.20	192	0.5	0.5	2.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
<b>AX EXP HRCT</b>	<b>1.0</b>	<b>0.8</b>	<b>BI57 / B80</b>	<b>lung</b>	<b>3</b>	<b>head/feet</b>

**Teton specific recon.**



# CT Chest Teton High-Res

## GE PARAMETERS & RECONS

For the Supine End Inspiration phase:

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
Opt 540	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
LS VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	50	50	2.2
Disc VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	NA	NA	2.2

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
<b>AX INSP LUNG</b>	<b>2.5</b>	<b>2.5</b>	<b>lung</b>	<b>1600/-600</b>	<b>head/feet</b>
AX INSP SOFT	2.5	2.5	std full	400/40	head/feet
COR INSP SOFT	2.5	2.5	std full	400/40	front/back
SAG INSP SOFT	2.5	2.5	std full	400/40	left/right
<b>AX INSP HRCT</b>	<b>1.25</b>	<b>1.0</b>	<b>bone plus full</b>	<b>1600/-600</b>	<b>head/feet</b>
COR INSP HRCT	1.25	5.0	bone plus full	1600/-600	front/back
AX INSP MIPS	8.0	3.0	std full	1600/-600	head/feet

**Must be first recon.**

**Teton specific recon.**

For the Supine End Expiration phase:

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	100-300	36.20	on	1.25	20	1.375	27.50	0.5	NA	NA	5.5
Opt 540	helical	large	120	100-300	36.20	on	1.25	20	1.375	27.50	0.5	NA	NA	5.5
LS VCT 64	helical	large body	120	50-300	36.01	on	1.25	40	0.984	39.375	0.5	30	70	3.8
Disc VCT 64	helical	large body	120	50-300	36.01	on	1.25	40	0.984	39.375	0.5	NA	NA	3.8

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
<b>AX EXP HRCT</b>	<b>1.25</b>	<b>1.0</b>	<b>bone plus full</b>	<b>1600/-600</b>	<b>head/feet</b>

**Teton specific recon.**

# CT Chest Teton High-Res

## PHILIPS PARAMETERS & RECONS

For the Supine End Inspiration phase:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	92	19	on	1.00	64	0.625	0.75	5.6

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX INSP LUNG	3.0	3.0	YA	lung	3	head/feet
AX INSP SOFT	3.0	3.0	B	mediastinum	3	head/feet
COR INSP SOFT	3.0	3.0	B	mediastinum	3	front/back
SAG INSP SOFT	3.0	3.0	B	mediastinum	3	left/right
<b>AX INSP HRCT</b>	<b>1.0</b>	<b>0.8</b>	<b>YA</b>	<b>lung</b>	<b>3</b>	<b>head/feet</b>
COR INSP HRCT	1.0	5.0	YA	lung	3	front/back
AX INSP MIPS	8.0	2.0	B	lung	3	head/feet

**Teton specific recon.**

For the Supine End Expiration phase:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time
Incisive 128	helical	120	55	19	on	1.00	64	0.625	0.75

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
<b>AX EXP HRCT</b>	<b>1.0</b>	<b>0.8</b>	<b>YA</b>	<b>lung</b>	<b>3</b>	<b>head/feet</b>

**Teton specific recon.**

# CT Chest ION Navigational

Updated  
5/1/2024

Indications - pre navigational biopsy of a lung nodule, mass, lesion or opacity and will be ordered specifically as ION 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 end inspiration).

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

Scan parameters are the same as routine chest protocol.

IV Contrast: not given for this protocol.

For **GE scanners**, it is essential for the 1st recon thickness on the scanner to match the 1st recon thickness in this protocol book for the prescribed Noise Index to be valid. The 1st recon should generally be the thickest recon in the protocol.

## SIEMENS PARAMETERS & RECONS

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	100	on	NA	1.15	16	0.75	0.5	10.9
Go Up 32	spiral	130	51	on	on 80	1.50	32	0.7	0.8	7.1
Sensation 64	spiral	120	100	on	NA	1.40	64	0.6	0.5	5.6
Definition 64	spiral	120	110	on	on	1.20	64	0.6	0.5	6.5
Go Top 64	spiral	120	62	on	on 80	1.20	64	0.6	0.33	2.1
Drive 128	spiral	120	66	on	on	1.20	128	0.6	0.5	3.3
Force 192	spiral	110	51	on	on	1.20	192	0.5	0.5	2.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX LUNG	3.0	3.0	Br57 / B70f	lung	3	head/feet
AX SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	left/right
<b>TLC INSP</b>	<b>0.75</b>	<b>0.5</b>	<b>Br40 / B41f</b>	<b>mediastinum</b>	<b>3</b>	<b>head/feet</b>
AX MIPS	8.0	3.0	Br40 / B41f	lung	3	head/feet

**ION specific recon.**

# CT Chest ION Navigational

## GE PARAMETERS & RECONS

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
Opt 540	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
LS VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	50	50	2.2
Disc VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	NA	NA	2.2

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
<b>AX LUNG</b>	<b>2.5</b>	<b>2.5</b>	<b>lung</b>	<b>1600/-600</b>	<b>head/feet</b>
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
<b>TLC INSP</b>	<b>0.75</b>	<b>0.5</b>	<b>std full</b>	<b>400/40</b>	<b>head/feet</b>
AX MIPS	8.0	3.0	std full	1600/-600	head/feet

**Must be first recon.**

**ION specific recon.**

## PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	92	19	on	1.00	64	0.625	0.75	5.6

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX LUNG	3.0	3.0	YA	lung	3	head/feet
AX SOFT	3.0	3.0	B	mediastinum	3	head/feet
COR SOFT	3.0	3.0	B	mediastinum	3	front/back
SAG SOFT	3.0	3.0	B	mediastinum	3	left/right
<b>TLC INSP</b>	<b>0.75</b>	<b>0.5</b>	<b>B</b>	<b>mediastinum</b>	<b>3</b>	<b>head/feet</b>
AX MIPS	8.0	2.0	B	lung	3	head/feet

**ION specific recon.**

# CT Chest Veran Navigational

Updated  
5/1/2024

Indications - pre navigational biopsy of a lung nodule, mass, lesion or opacity and will be ordered specifically as Veran protocol by Pulmonology.

Use CT Chest without Contrast charge.

## GENERAL SCAN NOTES

Remove any metal from the imaging field of view.

Have patient lift chin up.

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 on both phases (obtained during end inspiration).

Use smallest FOV without cropping anatomy or excluding vPad. Use the same FOV for both scans.

The vPad tracker should be clearly visible in the FOV.

The patients arms are **over his/her head** for the **end inspiratory phase**.

The patients arms are **by his/her side** for the **end expiratory phase**.

IV Contrast: not given for this protocol.

Veran Rep: Noel Kane 618-600-5922, noel.kane@veranmedical.com.

## SIEMENS PARAMETERS & RECONS

For the **Supine End Inspiration** and **Supine End Expiration** phases:

	Scan Mode	kV	Eff mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	<b>100/150</b>	<b>off</b>	NA	1.00	16	0.75	0.5	12.5
Go Up 32	spiral	120	<b>100/150</b>	<b>off</b>	<b>off</b>	1.00	32	0.6	0.5	7.8
Sensation 64	spiral	120	<b>105/160</b>	<b>off</b>	NA	1.00	64	0.6	0.5	7.8
Definition 64	spiral	120	<b>105/160</b>	<b>off</b>	<b>off</b>	1.00	64	0.6	0.5	7.8
Go Top 64	spiral	120	<b>105/160</b>	<b>off</b>	<b>off</b>	1.00	64	0.6	0.5	3.9
Drive 128	spiral	120	<b>110/170</b>	<b>off</b>	<b>off</b>	1.00	128	0.6	0.5	3.9
Force 192	spiral	120	<b>110/170</b>	<b>off</b>	<b>off</b>	1.00	128	0.6	0.5	3.9

Use lower mAs for BMI ≤25 or higher mAs for BMI >25.

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
<b>TLC INSP</b>	<b>0.75</b>	<b>0.5</b>	<b>Qr36 / B35f</b>	<b>mediastinum</b>	<b>none</b>	<b>head/feet</b>
AX MIPS	8.0	3.0	Br40 / B41f	lung	none	head/feet

**Veran specific recon.**

<b>TLC EXP</b>	<b>0.75</b>	<b>0.5</b>	<b>Qr36 / B35f</b>	<b>mediastinum</b>	<b>none</b>	<b>head/feet</b>
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**Veran specific recon.**

# CT Chest Veran Navigational

## GE PARAMETERS & RECONS

For the Supine End Inspiration and Supine End Expiration phases:

	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	<b>180/270</b>	off	0.625	10	1.375	13.75	0.5	NA	NA	10.9
Opt 540	helical	large	120	<b>180/270</b>	off	0.625	10	1.375	13.75	0.5	NA	NA	10.9
LS VCT 64	helical	large body	120	<b>180/270</b>	off	0.625	40	0.984	39.37	0.5	off	none	3.8
Disc VCT 64	helical	large body	120	<b>180/270</b>	off	0.625	40	0.984	39.37	0.5	NA	NA	3.8

Use 180 mAs for BMI  $\leq 25$  or 270 mAs for BMI  $> 25$ .

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
<b>TLC INSP</b>	<b>0.625</b>	<b>0.5</b>	<b>std full</b>	<b>400/40</b>	<b>head/feet</b>
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.  
Veran specific recon.**

<b>TLC EXP</b>	<b>0.625</b>	<b>0.5</b>	<b>std full</b>	<b>400/40</b>	<b>head/feet</b>
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**Veran specific recon.**

## PHILIPS PARAMETERS & RECONS

For the Supine End Inspiration and Supine End Expiration phases:

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

Use 130 mAs for BMI  $\leq 25$  or 190 mAs for BMI  $> 25$ .

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
<b>TLC INSP</b>	<b>0.67</b>	<b>0.5</b>	<b>B</b>	<b>mediastinum</b>	<b>none</b>	<b>head/feet</b>
AX MIPS	8.0	2.0	B	lung	none	head/feet

**Veran specific recon.**

<b>TLC EXP</b>	<b>0.67</b>	<b>0.5</b>	<b>B</b>	<b>mediastinum</b>	<b>none</b>	<b>head/feet</b>
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**Veran specific recon.**

# CT Chest Olympus Volume Reduction

Updated  
5/1/2024

Indications - pre procedural imaging prior to endoscopic lung volume reduction and will be ordered specifically as Olympus Lung Reduction 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.

Scan parameters are the same as routine chest protocol.

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

IV Contrast: not given for this protocol.

For **GE scanners**, it is essential for the 1st recon thickness on the scanner to match the 1st recon thickness in this protocol book for the prescribed Noise Index to be valid. The 1st recon should generally be the thickest recon in the protocol.

## SIEMENS PARAMETERS & RECONS

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	100	on	NA	1.15	16	0.75	0.5	10.9
Go Up 32	spiral	130	51	on	on 80	1.50	32	0.7	0.8	7.1
Sensation 64	spiral	120	100	on	NA	1.40	64	0.6	0.5	5.6
Definition 64	spiral	120	110	on	on	1.20	64	0.6	0.5	6.5
Go Top 64	spiral	120	62	on	on 80	1.20	64	0.6	0.33	2.1
Drive 128	spiral	120	66	on	on	1.20	128	0.6	0.5	3.3
Force 192	spiral	110	51	on	on	1.20	192	0.5	0.5	2.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX LUNG	3.0	3.0	Br57 / B70f	lung	3	head/feet
AX SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	left/right
<b>TLC INSP</b>	<b>1.0</b>	<b>1.0</b>	<b>Br44 / B41f</b>	<b>mediastinum</b>	<b>3</b>	<b>head/feet</b>
AX MIPS	8.0	3.0	Br40 / B41f	lung	3	head/feet

**Olympus specific recon.**

# CT Chest Olympus Volume Reduction

## GE PARAMETERS & RECONS

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
Opt 540	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
LS VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	50	50	2.2
Disc VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	NA	NA	2.2

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
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
<b>TLC INSP</b>	<b>1.25</b>	<b>1.25</b>	<b>std full</b>	<b>400/40</b>	<b>head/feet</b>
AX MIPS	8.0	3.0	std full	1600/-600	head/feet

**Must be first recon.**

**Olympus specific recon.**

## PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	92	19	on	1.00	64	0.625	0.75	5.6

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX LUNG	3.0	3.0	YA	lung	3	head/feet
AX SOFT	3.0	3.0	B	mediastinum	3	head/feet
COR SOFT	3.0	3.0	B	mediastinum	3	front/back
SAG SOFT	3.0	3.0	B	mediastinum	3	left/right
<b>TLC INSP</b>	<b>1.0</b>	<b>1.0</b>	<b>B</b>	<b>mediastinum</b>	<b>3</b>	<b>head/feet</b>
AX MIPS	8.0	2.0	B	lung	3	head/feet

**Olympus specific recon.**



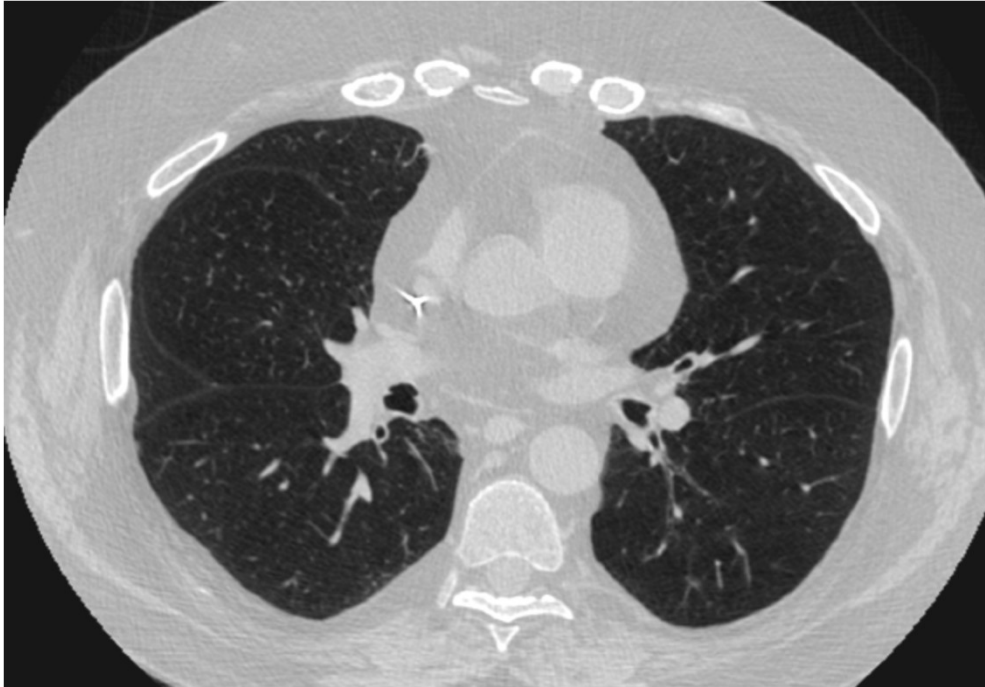
## **CT Chest Olympus Volume Reduction**

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).



**Transverse/Axial FOV**

# CT Chest Pulmonx Zephyr Volume Reduction

Updated  
6/8/2024

Indications - pre procedural imaging prior to endoscopic lung volume reduction and will be ordered specifically as Pulmonx Zephyr Lung Reduction 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.

Scan parameters are the same as routine chest protocol.

IV Contrast: not given for this protocol.

For **GE scanners**, it is essential for the 1st recon thickness on the scanner to match the 1st recon thickness in this protocol book for the prescribed Noise Index to be valid. The 1st recon should generally be the thickest recon in the protocol.

## SIEMENS PARAMETERS & RECONS

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	Can't scan this protocol on Sensation 16 due to thin slice limitations.									
Go Up 32	spiral	130	51	on	on 80	1.50	32	0.7	0.8	7.1
Sensation 64	spiral	120	100	on	NA	1.40	64	0.6	0.5	5.6
Definition 64	spiral	120	110	on	on	1.20	64	0.6	0.5	6.5
Go Top 64	spiral	120	62	on	on 80	1.20	64	0.6	0.33	2.1
Drive 128	spiral	120	66	on	on	1.20	128	0.6	0.5	3.3
Force 192	spiral	110	51	on	on	1.20	192	0.5	0.5	2.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX LUNG	3.0	3.0	Br57 / B70f	lung	3	head/feet
AX SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	left/right
<b>TLC INSP</b>	<b>≤0.625</b>	<b>≤0.625</b>	<b>Br38f / B30f</b>	<b>mediastinum</b>	<b>3</b>	<b>head/feet</b>
AX MIPS	8.0	3.0	Br40 / B41f	lung	3	head/feet

**Pulmonx specific recon.**

# CT Chest Pulmonx Zephyr Volume Reduction

## GE PARAMETERS & RECONS

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	100-440	16.36	on	2.5	10	1.375	13.75	0.5	NA	NA	10.9
Opt 540	helical	large	120	100-440	16.36	on	2.5	10	1.375	13.75	0.5	NA	NA	10.9
LS VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	50	50	2.2
Disc VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	NA	NA	2.2

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
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
<b>TLC INSP</b>	<b>≤0.625</b>	<b>≤0.625</b>	<b>standard</b>	<b>400/40</b>	<b>head/feet</b>
AX MIPS	8.0	3.0	std full	1600/-600	head/feet

**Must be first recon.**

**Pulmonx specific recon.**

## PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	92	19	on	1.00	64	0.625	0.75	5.6

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX LUNG	3.0	3.0	YA	lung	3	head/feet
AX SOFT	3.0	3.0	B	mediastinum	3	head/feet
COR SOFT	3.0	3.0	B	mediastinum	3	front/back
SAG SOFT	3.0	3.0	B	mediastinum	3	left/right
<b>TLC INSP</b>	<b>≤0.625</b>	<b>≤0.625</b>	<b>B</b>	<b>mediastinum</b>	<b>3</b>	<b>head/feet</b>
AX MIPS	8.0	2.0	B	lung	3	head/feet

**Pulmonx specific recon.**

# 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	<b>90/110/160</b>	<b>off</b>	NA	1.00	16	0.75	0.5	12.5
Go Up 32	spiral	110	<b>90/110/160</b>	<b>off</b>	<b>off</b>	1.20	32	0.75	0.8	8.3
Sensation 64	spiral	120	<b>80/100/150</b>	<b>off</b>	NA	1.00	64	0.6	0.5	7.8
Definition 64	spiral	120	<b>80/100/150</b>	<b>off</b>	<b>off</b>	1.00	64	0.6	0.5	7.8
Go Top 64	spiral	120	<b>80/100/150</b>	<b>off</b>	<b>off</b>	1.00	64	0.6	0.5	3.9
Drive 128	spiral	120	<b>100/125/180</b>	<b>off</b>	<b>off</b>	1.00	128	0.6	0.5	3.9
Force 192	spiral	120	<b>100/125/180</b>	<b>off</b>	<b>off</b>	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
<b>TLC INSP 1</b>	<b>0.75</b>	<b>0.5</b>	<b>Qr36f / B35f</b>	<b>mediastinum</b>	<b>none</b>	<b>head/feet</b>
<b>TLC INSP 2</b>	<b>0.75</b>	<b>0.5</b>	<b>Br46f / B45f</b>	<b>mediastinum</b>	<b>none</b>	<b>head/feet</b>
AX MIPS	8.0	3.0	Br40 / B41f	lung	none	head/feet

**VIDA specific recons.**

# CT Chest VIDA Airflow

## 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	<b>145/180/270</b>	off	0.625	20	1.375	27.50	0.5	NA	NA	5.5
Opt 540	helical	large	120	<b>145/180/270</b>	off	0.625	20	1.375	27.50	0.5	NA	NA	5.5
LS VCT 64	helical	large body	120	<b>145/180/270</b>	off	0.625	40	0.984	39.37	0.5	off	none	3.8
Disc VCT 64	helical	large body	120	<b>145/180/270</b>	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
<b>TLC INSP</b>	<b>0.625</b>	<b>0.5</b>	<b>std full</b>	<b>400/40</b>	<b>head/feet</b>
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	<b>105/130/190</b>	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
<b>TLC INSP</b>	<b>0.75</b>	<b>0.5</b>	<b>B</b>	<b>mediastinum</b>	<b>none</b>	<b>head/feet</b>
AX MIPS	8.0	2.0	B	lung	none	head/feet

**VIDA specific recon.**

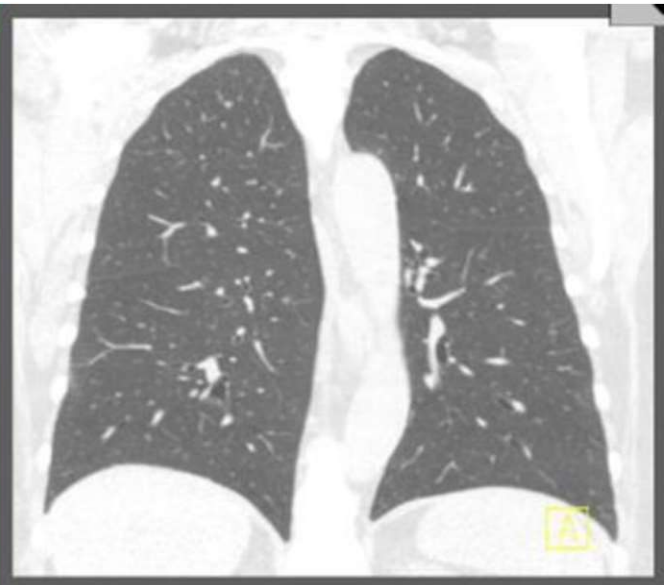
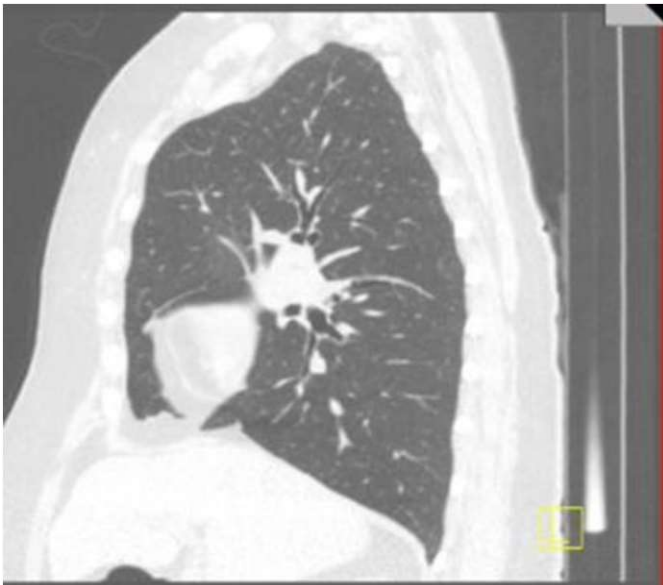
# CT Chest VIDA Airflow

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).



# **CT Trachea**

Updated  
5/1/2024

Indications - tracheal stenosis, tracheomalacia, inspiratory/expiratory stridor.

Only use this protocol when ordered/protocolled as such.

Use regular CT chest charges. Do not include a CT neck charge.

## **GENERAL SCAN NOTES**

Move the patient's arms over his/her head if possible. 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 - hyoid bone through diaphragm (obtained during end inspiration).

Craniocaudal scan coverage:

Supine end inspiration phase - **5 cm above clavicular heads** through **adrenal glands**.

Supine end expiration phase - **5 cm above clavicular heads** through **carina**.

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

Scan parameters for the supine end inspiratory phase are the same as routine chest protocol.

Scan parameters for the supine end expiratory phase are the same as low-dose chest protocol.

IV Contrast: 100 mL Omnipaque-300, inject at 2 mL/sec, 30 secs scan delay.

For **GE scanners**, it is essential for the 1st recon thickness on the scanner to match the 1st recon thickness in this protocol book for the prescribed Noise Index to be valid. The 1st recon should generally be the thickest recon in the protocol.

# CT Trachea

## SIEMENS PARAMETERS & RECONS

For the Supine End Inspiration phase:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	100	on	NA	1.15	16	0.75	0.5	10.9
Go Up 32	spiral	130	51	on	on 80	1.50	32	0.7	0.8	7.1
Sensation 64	spiral	120	100	on	NA	1.40	64	0.6	0.5	5.6
Definition 64	spiral	120	110	on	on	1.20	64	0.6	0.5	6.5
Go Top 64	spiral	120	62	on	on 80	1.20	64	0.6	0.33	2.1
Drive 128	spiral	120	66	on	on	1.20	128	0.6	0.5	3.3
Force 192	spiral	110	51	on	on	1.20	192	0.5	0.5	2.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX INSP LUNG	3.0	3.0	Br57 / B70f	lung	3	head/feet
AX INSP SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR INSP SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG INSP SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	left/right
AX INSP THINS	1.0	0.8	Br40 / B41f	mediastinum	3	head/feet
AX INSP MIPS	8.0	3.0	Br40 / B41f	lung	3	head/feet

For the Supine End Expiration phase:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	<b>60</b>	on	NA	1.15	16	0.75	0.5	10.9
Go Up 32	spiral	130	<b>31</b>	on	on 80	1.50	32	0.7	0.8	7.1
Sensation 64	spiral	120	<b>60</b>	on	NA	1.40	64	0.6	0.5	5.6
Definition 64	spiral	120	<b>66</b>	on	on	1.20	64	0.6	0.5	6.5
Go Top 64	spiral	120	<b>37</b>	on	on 80	1.20	64	0.6	0.33	2.1
Drive 128	spiral	120	<b>40</b>	on	on	1.20	128	0.6	0.5	3.3
Force 192	spiral	110	<b>31</b>	on	on	1.20	192	0.5	0.5	2.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX EXP LUNG	3.0	3.0	Br57 / B70f	lung	3	head/feet
AX EXP SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet



# CT Trachea

## GE PARAMETERS & RECONS

For the Supine End Inspiration phase:

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	8.2
Opt 540	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	8.2
LS VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	50	50	3.3
Disc VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	NA	NA	3.3

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
<b>AX LUNG</b>	<b>2.5</b>	<b>2.5</b>	<b>lung</b>	<b>1600/-600</b>	<b>head/feet</b>
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 THINS	1.25	1.0	std full	400/40	head/feet
AX MIPS	8.0	3.0	std full	1600/-600	head/feet

**Must be first recon.**

For the Supine End Expiration phase:

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	100-300	25.46	on	2.5	20	1.375	27.50	0.5	NA	NA	8.2
Opt 540	helical	large	120	100-300	25.46	on	2.5	20	1.375	27.50	0.5	NA	NA	8.2
LS VCT 64	helical	large body	120	50-300	25.46	on	2.5	40	0.984	39.375	0.5	30	70	5.7
Disc VCT 64	helical	large body	120	50-300	25.46	on	2.5	40	0.984	39.375	0.5	NA	NA	5.7

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
<b>AX LUNG</b>	<b>2.5</b>	<b>2.5</b>	<b>lung</b>	<b>1600/-600</b>	<b>head/feet</b>
AX SOFT	2.5	2.5	std full	400/40	head/feet

**Must be first recon.**

# CT Trachea

## PHILIPS PARAMETERS & RECONS

For the Supine End Inspiration phase:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	92	19	on	1.00	64	0.625	0.75	8.4

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX LUNG	3.0	3.0	YA	lung	3	head/feet
AX SOFT	3.0	3.0	B	mediastinum	3	head/feet
COR SOFT	3.0	3.0	B	mediastinum	3	front/back
SAG SOFT	3.0	3.0	B	mediastinum	3	left/right
AX THINS	1.0	0.75	B	mediastinum	3	head/feet
AX MIPS	8.0	2.0	B	lung	3	head/feet

For the Supine End Expiration phase:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	# Detect	Colli-mation	Rot Time	Scan Time
Incisive 128	helical	120	55	19	on	1.00	64	0.625	0.75	8.4

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX LUNG	3.0	3.0	YA	lung	3	head/feet
AX SOFT	3.0	3.0	B	mediastinum	3	head/feet

# CT Esophagram

Indications - concern for esophageal perforation or fistula.

Use CT chest without contrast charge.

## GENERAL SCAN NOTES

Move the patient's arms over his/her head if possible. 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 end inspiration).

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

Scan parameters and recons are the same as routine chest protocol.

IV Contrast: 100 mL Omnipaque-300, inject at 2 mL/sec, 30 secs scan delay.

Oral Contrast:

Have the patient drink 8-16 ounces of **Omnipaque** oral contrast immediately before getting on the scanner.

Stop the patient from drinking more contrast if he/she begins to cough or choke.

Do not use **Gastrografin**, **Gastroview** or **barium** contrast even if the order comments say to use one of them.

For **GE scanners**, it is essential for the 1st recon thickness on the scanner to match the 1st recon thickness in this protocol book for the prescribed Noise Index to be valid. The 1st recon should generally be the thickest recon in the protocol.

## SIEMENS PARAMETERS & RECONS

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	100	on	NA	1.15	16	0.75	0.5	10.9
Go Up 32	spiral	130	51	on	on 80	1.50	32	0.7	0.8	7.1
Sensation 64	spiral	120	100	on	NA	1.40	64	0.6	0.5	5.6
Definition 64	spiral	120	110	on	on	1.20	64	0.6	0.5	6.5
Go Top 64	spiral	120	62	on	on 80	1.20	64	0.6	0.33	2.1
Drive 128	spiral	120	66	on	on	1.20	128	0.6	0.5	3.3
Force 192	spiral	110	51	on	on	1.20	192	0.5	0.5	2.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX LUNG	3.0	3.0	Br57 / B70f	lung	3	head/feet
AX SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	left/right
AX THINS	1.0	0.8	Br40 / B41f	mediastinum	3	head/feet
AX MIPS	8.0	3.0	Br40 / B41f	lung	3	head/feet

# CT Esophagram

## GE PARAMETERS & RECONS

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Dose Red	ASIR	Scan Time
LS 16	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
Opt 540	helical	large	120	100-440	16.36	on	2.5	20	1.375	27.50	0.5	NA	NA	5.5
LS VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	50	50	2.2
Disc VCT 64	helical	large body	120	100-650	18.38	on	2.5	40	1.375	55.00	0.4	NA	NA	2.2

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
<b>AX LUNG</b>	<b>2.5</b>	<b>2.5</b>	<b>lung</b>	<b>1600/-600</b>	<b>head/feet</b>
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 THINS	1.25	1.0	std full	400/40	head/feet
AX MIPS	8.0	3.0	std full	1600/-600	head/feet

**Must be first recon.**

## PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	92	19	on	1.00	64	0.625	0.75	5.6

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX LUNG	3.0	3.0	YA	lung	3	head/feet
AX SOFT	3.0	3.0	B	mediastinum	3	head/feet
COR SOFT	3.0	3.0	B	mediastinum	3	front/back
SAG SOFT	3.0	3.0	B	mediastinum	3	left/right
AX THINS	1.0	0.75	B	mediastinum	3	head/feet
AX MIPS	8.0	2.0	B	lung	3	head/feet