

CT Peds Chest

Updated 05/04/24

Reviewed 05/15/25

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

NEVER perform a multiphase or without and with exam on a pediatric patient unless approved by a rad.

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 at end inspiration).

Craniocaudal scan coverage - lung apices through diaphragm (obtained at end inspiration).

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

IV Contrast: Weight-based Omnipaque-300, inject at 2 mL/sec, 22-gauge or larger, 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	45	on	NA	1.15	16	1.5	0.5	5.4
Go Up 32	spiral	110	76	on	on 80	1.50	32	0.7	0.8	7.1
Sensation 64	spiral	120	45	on	NA	1.40	24	1.2	0.5	3.7
Definition 64	spiral	100	78	on	on	0.80	16	1.2	0.5	9.8
Go Top 64	spiral	100	102	on	on 80	1.50	64	0.6	0.33	1.7
Drive 128	spiral	100	47	on	on	1.40	32	1.2	0.5	2.8
Force 192	spiral	100	32	on	on	1.40	192	0.6	0.5	1.9

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX LUNG	3.0	3.0	Bl57 / B60f	lung	3	head/feet
AX SOFT	3.0	3.0	Br40 / B30f	mediastinum	3	head/feet
COR SOFT	3.0	3.0	Br40 / B30f	mediastinum	3	front/back
SAG SOFT	3.0	3.0	Br40 / B30f	mediastinum	3	left/right

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GE PARAMETERS & RECONS

For **LightSpeed 16** and **Optima 540** scanners:

	Scan Type	SFOV	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time	Scan Time
0-20 lbs (0-9 kgs)	helical	small	80	65-130	7.07	on	2.5	20	0.938	18.75	0.5	14.1
21-60 lbs (9-27.2 kgs)	helical	large	100	80-160	9.90	on	2.5	20	0.938	18.75	0.5	14.1
61-100 lbs (27.3-45.4 kgs)	helical	large	120	95-190	14.14	on	2.5	20	0.938	18.75	0.5	14.1
101-200 lbs (45.5-90.7 kgs)	helical	large	120	110-220	16.97	on	2.5	20	0.938	18.75	0.5	14.1
>200 lbs (>90.8 kgs)	helical	large	120	125-300	21.21	on	2.5	20	0.938	18.75	0.5	14.1

For **LightSpeed & Discovery VCT 64** scanners:

0-20 lbs (0-9 kgs)	helical	ped body	80	65-130	7.07	on	2.5	40	0.938	39.37	0.5	7.0
21-60 lbs (9-27.2 kgs)	helical	ped body	100	80-160	9.90	on	2.5	40	0.938	39.37	0.5	7.0
61-100 lbs (27.3-45.4 kgs)	helical	large body	120	95-190	14.14	on	2.5	40	0.938	39.37	0.5	7.0
101-200 lbs (45.5-90.7 kgs)	helical	large body	120	110-220	16.97	on	2.5	40	0.938	39.37	0.5	7.0
>200 lbs (>90.8 kgs)	helical	large body	120	125-300	21.21	on	2.5	40	0.938	39.37	0.5	7.0

Name of Series	Thickness	Interval	Recon Algorithm/Mode	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

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	100	73	18	on	1.00	64	0.625	0.50	3.8

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