

CT Peds Chest/Abdomen/Pelvis

Updated
5/4/2024

Indications - pain, weight loss, fever, abscess, cancer staging or follow-up, trauma, 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.

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

Craniocaudal scan coverage - lung apices through pubic symphysis (obtained during end inspiration).

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

For **16 slice scanners** or if the patient has **difficulty holding his/her breath**, scan the chest by itself then scan the abdomen/pelvis as a separate acquisition.

IV Contrast: Weight-based Omnipaque-300, inject at 2 mL/sec, 22-gauge or larger, 70 secs scan delay.

Oral Contrast: per 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

SIEMENS PARAMETERS & RECONS

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	85	on	NA	1.15	16	1.5	0.5	14.5
Go Up 32	spiral	110	140	on	on 145	1.20	32	0.7	0.8	23.8
Sensation 64	spiral	120	85	on	NA	1.40	24	1.2	0.5	9.9
Definition 64	spiral	100	149	on	on	0.60	16	1.2	0.5	34.7
Go Top 64	spiral	100	188	on	on 145	1.20	64	0.6	0.5	8.7
Drive 128	spiral	100	104	on	on	1.40	32	1.2	0.5	7.4
Force 192	spiral	100	104	on	on	1.40	192	0.6	0.5	5.0

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Anatomy	Recon Direction
AX SOFT CAP	3.0	3.0	Br40 / B41f	mediastinum	3	CAP	head/feet
AX LUNG	3.0	3.0	B157 / B60f	lung	3	chest	head/feet
COR SOFT CHEST	3.0	3.0	Br40 / B41f	mediastinum	3	chest	front/back
SAG SOFT CHEST	3.0	3.0	Br40 / B41f	mediastinum	3	chest	left/right
COR SOFT ABD/PEL	3.0	3.0	Br40 / B41f	mediastinum	3	abd/pel	front/back
SAG SOFT ABD/PEL	3.0	3.0	Br40 / B41f	mediastinum	3	abd/pel	left/right
AX BONE	3.0	3.0	Br59 / B60s	bone/osteo	3	CAP	head/feet

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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	23.5
21-60 lbs (9-27.2 kgs)	helical	large	100	80-160	9.90	on	2.5	20	0.938	18.75	0.5	23.5
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	23.5
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	23.5
>200 lbs (>90.8 kgs)	helical	large	120	125-300	21.21	on	2.5	20	0.938	18.75	0.5	23.5

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	11.7
21-60 lbs (9-27.2 kgs)	helical	small body	100	80-160	9.90	on	2.5	40	0.938	39.37	0.5	11.7
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	11.7
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	11.7
>200 lbs (>90.8 kgs)	helical	large body	120	125-300	21.21	on	2.5	40	0.938	39.37	0.5	11.7

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Anatomy	Recon Direction
AX SOFT CAP	2.5	2.5	std full	400/40	CAP	head/feet

This must be the first recon for the prescribed Noise Index to be valid.

AX LUNG	2.5	2.5	lung	1600/-600	chest	head/feet
COR SOFT CHEST	2.5	2.5	std full	400/40	chest	front/back
SAG SOFT CHEST	2.5	2.5	std full	400/40	chest	left/right
COR SOFT ABD/PEL	2.5	2.5	std full	400/40	abd/pel	front/back
SAG SOFT ABD/PEL	2.5	2.5	std full	400/40	abd/pel	left/right
AX BONE	2.5	2.5	bone full	2500/480	CAP	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	100	81	19	on	1.00	64	0.625	0.50	6.3

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Anatomy	Recon Direction
AX SOFT CAP	3.0	3.0	B	mediastinum	3	CAP	head/feet
AX LUNG	3.0	3.0	YA	lung	3	chest	head/feet
COR SOFT CHEST	3.0	3.0	B	mediastinum	3	chest	front/back
SAG SOFT CHEST	3.0	3.0	B	mediastinum	3	chest	left/right
COR SOFT ABD/PEL	3.0	3.0	B	mediastinum	3	abd/pel	front/back
SAG SOFT ABD/PEL	3.0	3.0	B	mediastinum	3	abd/pel	left/right
AX BONE	3.0	3.0	YC	bone	3	CAP	head/feet