

CT Peds Head

Updated
5/4/2024

Indications - trauma, headache, hemorrhage, altered mental status, dizziness, syncope, mass.

Do not perform a with IV only exam unless a noncontrast head has been performed within last 6 hours.

Change order to CT Head w/o + w/.

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

GENERAL SCAN NOTES

Remove any metal from the imaging field of view.

For all pediatric head studies, it is very important for image quality purposes to position the patient in the center of the scan field. Use the lateral laser beam to make sure that the patient is positioned in the center.

Position patient's head so that the line connecting the lateral canthus of the eye and the EAC is perpendicular to the CT tabletop.

Topogram - C1 vertebrae through top of head.

Craniocaudal scan coverage - C1 vertebrae through top of head. **Avoid scanning the lens of the eyes.**

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, 3 mins 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 Peds Head

SIEMENS SPIRAL SCAN PARAMETERS & RECONS

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	150	on	NA	0.55	16	1.5	1.0	9.1
Go Up 32	spiral	110	314	on	on 345	0.55	32	0.7	1.0	9.7
Sensation 64	spiral	120	190	on	NA	0.85	64	0.6	1.0	7.4
Definition 64	spiral	100	300	on	on	0.80	64	0.6	1.0	7.8
Go Top 64	spiral	100	394	on	on 345	0.55	64	0.6	1.0	5.7
Drive 128	spiral	100	255	on	on	0.80	128	0.6	1.0	3.9
Force 192	spiral	100	248	on	on	0.80	192	0.6	1.0	2.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX SOFT	3.0	3.0	Hr40 / C30s	cerebrum	3	feet/head
TRUE AX SOFT	3.0	3.0	Hr40 / C30s	cerebrum	3	feet/head
COR SOFT	3.0	3.0	Hr40 / C30s	cerebrum	3	front/back
AX BONE	2.0	2.0	Br59 / C60s	bone	3	feet/head

SIEMENS SEQUENTIAL SCAN PARAMETERS & RECONS

	Scan Mode	kV	Ref mAs	Care Dose	Care kV & Lvl	# Detect	Collimation	Feed / Scan	Scan Time	Cycle Time
Sensation 16	sequential	120	150	on	NA	12	1.5	18.0	1.0	2.0
Go Up 32	sequential									2.0
Sensation 64	sequential	120	190	on	NA	24	1.2	28.5	1.0	2.0
Definition 64	sequential	100	300	on	on	64	0.6	17.0	1.0	2.0
Go Top 64	sequential									2.0
Drive 128	sequential	100	210	on	on	128	0.6	34.5	1.0	4.0
Force 192	sequential	100	204	on	on	192	0.6	48.0	1.0	3.5

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX SOFT	2.4 3.0 (16 slice)	2.4 3.0 (16 slice)	Hr40 / C30s	cerebrum	3	feet/head
TRUE AX SOFT	2.4 3.0 (16 slice)	2.4 3.0 (16 slice)	Hr40 / C30s	cerebrum	3	feet/head
COR SOFT	3.0	3.0	Hr40 / C30s	cerebrum	3	front/back
AX BONE	2.4 3.0 (16 slice)	2.4 3.0 (16 slice)	Br59 / C60s	bone	3	feet/head

CT Peds Head

GE PARAMETERS & RECONS

HELICAL SCAN

For patients **0-15 years** of age:

	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	head	120	100-190	6.00	on	2.5	10	0.562	11.25	0.5	NA	NA	5.3
Opt 540	helical	head	120	100-190	6.00	on	2.5	10	0.562	11.25	0.5	NA	NA	5.3
LS VCT 64	helical	small head	120	100-200	6.00	on	2.5	20	0.531	10.62	0.5	0	0	5.6
Disc VCT 64	helical	small head	120	100-200	6.00	on	2.5	20	0.531	10.62	0.5	NA	NA	5.6

For patients **15-18 years** of age:

LS 16	helical	head	120	100-220	11.31	on	2.5	10	0.562	11.25	0.5	NA	NA	5.3
Opt 540	helical	head	120	100-220	11.31	on	2.5	10	0.562	11.25	0.5	NA	NA	5.3
LS VCT 64	helical	small head	120	100-220	11.31	on	2.5	20	0.531	10.62	0.5	0	0	5.6
Disc VCT 64	helical	small head	120	100-220	11.31	on	2.5	20	0.531	10.62	0.5	NA	NA	5.6

AXIAL SCAN

For patients **<18 mths** of age:

	Scan Type	SFOV	kV	Manual mA	Smart mA	Slice Thick	Beam Coll	Pitch / Speed	Rot Time	Dose Red	ASIR
LS 16	axial	ped	120	120	off	2.5	10	2i	1.0	NA	NA
Opt 540	axial	ped	120	120	off	2.5	10	2i	1.0	NA	NA
LS VCT 64	axial	ped head	120	170	off	2.5	20	4i	0.5	30	30
Disc VCT 64	axial	ped head	120	240	off	2.5	20	4i	0.5	NA	NA

For patients **18 mths** to **5 years** of age:

LS 16	axial	head	120	170	off	2.5	10	4i	1.0	NA	NA
Opt 540	axial	head	120	170	off	2.5	10	4i	1.0	NA	NA
LS VCT 64	axial	small head	120	235	off	2.5	20	4i	0.5	30	30
Disc VCT 64	axial	small head	120	335	off	2.5	20	4i	0.5	NA	NA

For patients **5-18 years** of age:

LS 16	axial	head	120	230	off	2.5	10	4i	1.0	NA	NA
Opt 540	axial	head	120	230	off	2.5	10	4i	1.0	NA	NA
LS VCT 64	axial	small head	120	125	off	2.5	20	4i	1.0	30	30
Disc VCT 64	axial	small head	120	180	off	2.5	20	4i	1.0	NA	NA

CT Peds Head

GE RECONS

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
AX SOFT	2.5	2.5	std full	80/40	feet/head
TRUE AX SOFT	2.5	2.5	std full	80/40	feet/head
COR SOFT	2.5	2.5	std full	80/40	front/back
AX BONE	2.5	2.5	bone full	2500/480	feet/head

Must be first recon.

PHILIPS PARAMETERS & RECONS

HELICAL SCAN

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	208	35	on	0.40	64	0.625	0.5	3.8

RECONS

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX SOFT	3.0	3.0	UB	brain	1	feet/head
TRUE AX SOFT	3.0	3.0	UB	brain	1	feet/head
COR SOFT	3.0	3.0	UB	brain	1	front/back
AX BONE	3.0	3.0	YB	bone	1	feet/head

CT Peds Maxillofacial/Orbits

Updated
5/4/2024

Indications - pain, trauma, fracture, mass, infection.

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

GENERAL SCAN NOTES

Remove any metal from the imaging field of view.

Topogram:

Maxillofacial - top of frontal sinuses through the bottom of mandible.

Orbits - Top of frontal sinuses through the bottom of maxilla.

Craniocaudal scan coverage:

Maxillofacial - top of frontal sinuses through the bottom of mandible.

Orbits - Top of frontal sinuses through the bottom of maxilla.

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, 45 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	74	on	NA	0.45	16	0.75	1.00	14.8
Go Up 32	spiral	Sn 110	475	on	on 110	0.55	32	0.7	1.00	6.5
Sensation 64	spiral	120	65	on	NA	0.90	64	0.6	1.00	4.6
Definition 64	spiral	120	63	on	on	0.80	64	0.6	1.00	5.2
Go Top 64	spiral	Sn 110	1227	on	on 110	0.55	64	0.6	1.00	3.8
Drive 128	spiral	120	44	on	on	0.80	128	0.6	1.00	2.6
Force 192	spiral	100	60	on	on	0.80	192	0.6	1.00	1.7

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX SOFT	2.0	2.0	Hr40 / C30s	abdomen	3	feet/head
AX BONE	2.0	2.0	Br59 / C60s	bone/sinus	3	feet/head
COR BONE	2.0	2.0	Br59 / C60s	bone/sinus	3	front/back
SAG BONE	2.0	2.0	Br59 / C60s	bone/sinus	3	left/right

Add the following recons if the indication is **soft tissue** related.

COR SOFT	2.0	2.0	Hr40 / C30s	abdomen	3	front/back
SAG SOFT	2.0	2.0	Hr40 / C30s	abdomen	3	left/right

CT Peds Maxillofacial/Orbits

GE PARAMETERS & RECONS

For patients **0-15 years** of age:

	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	head	120	100-190	6.00	on	2.5	10	0.562	11.25	0.5	NA	NA	5.3
Opt 540	helical	head	120	100-190	6.00	on	2.5	10	0.562	11.25	0.5	NA	NA	5.3
LS VCT 64	helical	small head	120	100-200	6.00	on	2.5	20	0.531	10.62	0.5	0	0	5.6
Disc VCT 64	helical	small head	120	100-200	6.00	on	2.5	20	0.531	10.62	0.5	NA	NA	5.6

For patients **15-18 years** of age:

LS 16	helical	head	120	100-220	11.31	on	2.5	10	0.562	11.25	0.5	NA	NA	5.3
Opt 540	helical	head	120	100-220	11.31	on	2.5	10	0.562	11.25	0.5	NA	NA	5.3
LS VCT 64	helical	small head	120	100-220	11.31	on	2.5	20	0.531	10.62	0.5	0	0	5.6
Disc VCT 64	helical	small head	120	100-220	11.31	on	2.5	20	0.531	10.62	0.5	NA	NA	5.6

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
AX SOFT	2.5	2.5	std full	400/40	feet/head
AX BONE	2.5	2.5	bone full	2500/480	feet/head
COR BONE	2.5	2.5	bone full	2500/480	front/back
SAG BONE	2.5	2.5	bone full	2500/480	left/right

Must be first recon.

Add the following recons if the indication is **soft tissue** related.

COR SOFT	2.5	2.5	std full	400/40	front/back
SAG SOFT	2.5	2.5	std full	400/40	left/right

PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	208	35	on	0.40	64	0.625	0.5	3.8

RECONS

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX SOFT	2.0	2.0	UB	brain	1	feet/head
AX BONE	2.0	2.0	YB	bone	1	feet/head
COR BONE	2.0	2.0	YB	bone	1	front/back
SAG BONE	2.0	2.0	YB	bone	1	left/right

Add the following recons if the indication is **soft tissue** related.

COR SOFT	2.0	2.0	UB	brain	1	front/back
SAG SOFT	2.0	2.0	UB	brain	1	left/right

CT Peds Neck Soft Tissue

Updated
5/4/2024

Indications - mass, lymphadenopathy, swelling, sore throat, difficulty swallowing, foreign body.

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

GENERAL SCAN NOTES

Remove any metal from the imaging field of view.

Use non metallic markers for palpable areas. Do not use metallic skin markers areas due to streak artifact.

Topogram - orbital floor through inferior aspect of main pulmonary artery.

Craniocaudal scan coverage - orbital floor through inferior aspect of main pulmonary artery.

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, 90 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	60	on	NA	0.80	16	1.5	0.75	7.8
Go Up 32	spiral	110	143	on	on 155	1.20	32	0.7	1.0	7.4
Sensation 64	spiral	120	60	on	NA	0.90	24	1.2	1.0	7.7
Definition 64	spiral	100	117	on	on	0.80	16	1.2	1.0	13.0
Go Top 64	spiral	100	182	on	on 155	1.20	64	0.6	1.0	4.3
Drive 128	spiral	100	84	on	on	0.80	32	1.2	1.0	6.5
Force 192	spiral	100	82	on	on	0.80	192	0.6	1.0	4.3

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX SOFT	3.0	3.0	Br40 / B30s	abdomen	3	head/feet
COR SOFT	3.0	3.0	Br40 / B30s	abdomen	3	front/back
SAG SOFT	3.0	3.0	Br40 / B30s	abdomen	3	left/right
AX BONE	3.0	3.0	Br59 / B60s	bone/osteo	3	head/feet

CT Peds Neck Soft Tissue

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	8.2
21-60 lbs (9-27.2 kgs)	helical	small	100	80-160	9.90	on	2.5	20	0.938	18.75	0.5	8.2
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	8.2
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	8.2
>200 lbs (>90.8 kgs)	helical	large	120	125-300	21.21	on	2.5	20	0.938	18.75	0.5	8.2

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	4.1
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	4.1
61-100 lbs (27.3-45.4 kgs)	helical	med body	120	95-190	14.14	on	2.5	40	0.938	39.37	0.5	4.1
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	4.1
>200 lbs (>90.8 kgs)	helical	large body	120	125-300	21.21	on	2.5	40	0.938	39.37	0.5	4.1

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
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 BONE	2.5	2.5	bone full	2500/480	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	100	137	22	on	0.80	64	0.625	0.50	3.1

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX SOFT	3.0	3.0	B	soft tissue neck	3	head/feet
COR SOFT	3.0	3.0	B	soft tissue neck	3	front/back
SAG SOFT	3.0	3.0	B	soft tissue neck	3	left/right
AX BONE	3.0	3.0	YC	bone	3	head/feet

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

CT Peds Chest/Abdomen/Pelvis

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

CT Peds Chest/Abdomen/Pelvis

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

CT Peds Chest

Updated
5/4/2024

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

CT Peds Chest

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

CT Peds Abdomen/Pelvis

Updated
5/4/2024

Indications - abdominal pain, nausea, vomiting, constipation, diarrhea, weight loss, fever.

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 bases through pubic symphysis (obtained during end inspiration).

Craniocaudal scan coverage - lung bases through pubic symphysis (obtained during 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, 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 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	85	on	NA	1.15	16	1.5	0.5	9.1
Go Up 32	spiral	110	140	on	on 145	1.20	32	0.7	0.8	14.9
Sensation 64	spiral	120	85	on	NA	1.40	24	1.2	0.5	6.2
Definition 64	spiral	100	149	on	on	0.60	16	1.2	0.5	21.7
Go Top 64	spiral	100	188	on	on 145	1.20	64	0.6	0.5	5.4
Drive 128	spiral	100	104	on	on	1.40	32	1.2	0.5	4.7
Force 192	spiral	100	104	on	on	1.40	192	0.6	0.5	3.1

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
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
AX BONE	3.0	3.0	Br59 / B60s	bone/osteo	3	head/feet

CT Peds Abdomen/Pelvis

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/Mode	Window Width/Level	Recon Direction
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 BONE	2.5	2.5	bone full	2500/480	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	100	81	19	on	1.00	64	0.625	0.50	6.3

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
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 BONE	3.0	3.0	YC	bone	3	head/feet

CT Peds Cervical Spine

Updated
5/4/2024

Indications - pain, trauma, fracture, extremity weakness, mass, infection.

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

GENERAL SCAN NOTES

Keep patient's arms by his/her side if possible. Remove any metal from the imaging field of view.

Topogram - skull base through T1.

Craniocaudal scan coverage - skull base through T1.

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, 60 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	90	on	NA	0.80	16	1.5	0.75	6.8
Go Up 32	spiral	110	174	on	on 195	1.50	32	0.7	1.0	5.2
Sensation 64	spiral	120	40	on	NA	0.90	64	0.6	1.0	10.1
Definition 64	spiral	120	165	on	on	0.80	64	0.6	1.0	11.4
Go Top 64	spiral	100	229	on	on 195	1.50	64	0.6	1.0	3.0
Drive 128	spiral	120	116	on	on	0.80	128	0.6	1.0	5.7
Force 192	spiral	120	116	on	on	0.80	192	0.6	1.0	3.8

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX SOFT	2.0	2.0	Br40 / B30s	abdomen	3	head/feet
AX BONE	2.0	2.0	Br59 / B60s	bone/osteo	3	head/feet
COR BONE	2.0	2.0	Br59 / B60s	bone/osteo	3	front/back
SAG BONE	2.0	2.0	Br59 / B60s	bone/osteo	3	left/right

The axial, coronal and sagittal recons are relative to the plane of the spine and may not necessarily be true axial, coronal and sagittal planes.

CT Peds Cervical Spine

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	8.2
21-60 lbs (9-27.2 kgs)	helical	small	100	80-160	9.90	on	2.5	20	0.938	18.75	0.5	8.2
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	8.2
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	8.2
>200 lbs (>90.8 kgs)	helical	large	120	125-300	21.21	on	2.5	20	0.938	18.75	0.5	8.2

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	4.1
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	4.1
61-100 lbs (27.3-45.4 kgs)	helical	med body	120	95-190	14.14	on	2.5	40	0.938	39.37	0.5	4.1
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	4.1
>200 lbs (>90.8 kgs)	helical	large body	120	125-300	21.21	on	2.5	40	0.938	39.37	0.5	4.1

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
AX SOFT	2.5	2.5	std full	400/40	head/feet
AX BONE	2.5	2.5	bone full	2500/480	head/feet
COR BONE	2.5	2.5	bone full	2500/480	front/back
SAG BONE	2.5	2.5	bone full	2500/480	left/right

Must be first recon.

The axial, coronal and sagittal recons are relative to the plane of the spine and may not necessarily be true axial, coronal and sagittal planes.

PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	112	23	on	0.80	64	0.625	0.75	4.1

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX SOFT	2.0	2.0	B	abdomen	2	head/feet
AX BONE	2.0	2.0	YC	bone	2	head/feet
COR BONE	2.0	2.0	YC	bone	2	front/back
SAG BONE	2.0	2.0	YC	bone	2	left/right

The axial, coronal and sagittal recons are relative to the plane of the spine and may not necessarily be true axial, coronal and sagittal planes.

CT Peds Thoracic Spine

Updated
5/4/2024

Indications - pain, trauma, fracture, extremity weakness, mass, infection.

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

GENERAL SCAN NOTES

Move patient's arms over head if possible. Remove any metal from the imaging field of view.

Topogram - C7 through L1.

Craniocaudal scan coverage - C7 through L1.

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, 60 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	90	on	NA	0.80	16	1.5	0.75	11.7
Go Up 32	spiral	110	174	on	on 285	1.50	32	0.7	1.0	8.9
Sensation 64	spiral	120	40	on	NA	0.90	64	0.6	1.0	17.4
Definition 64	spiral	120	165	on	on	0.80	64	0.6	1.0	19.5
Go Top 64	spiral	100	366	on	on 285	1.50	64	0.6	1.0	5.2
Drive 128	spiral	120	116	on	on	0.80	128	0.6	1.0	9.8
Force 192	spiral	120	116	on	on	0.80	192	0.6	1.0	6.5

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX SOFT	3.0	3.0	Br40 / B30s	abdomen	3	head/feet
AX BONE	3.0	3.0	Br59 / B60s	bone/osteo	3	head/feet
COR BONE	3.0	3.0	Br59 / B60s	bone/osteo	3	front/back
SAG BONE	3.0	3.0	Br59 / B60s	bone/osteo	3	left/right

The axial, coronal and sagittal recons are relative to the plane of the spine and may not necessarily be true axial, coronal and sagittal planes.

CT Peds Thoracic Spine

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	small	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	med 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	Window Width/Level	Recon Direction
AX SOFT	2.5	2.5	std full	400/40	head/feet
AX BONE	2.5	2.5	bone full	2500/480	head/feet
COR BONE	2.5	2.5	bone full	2500/480	front/back
SAG BONE	2.5	2.5	bone full	2500/480	left/right

Must be first recon.

The axial, coronal and sagittal recons are relative to the plane of the spine and may not necessarily be true axial, coronal and sagittal planes.

PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	112	23	on	1.00	64	0.625	0.75	5.6

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX SOFT	3.0	3.0	B	abdomen	2	head/feet
AX BONE	3.0	3.0	YC	bone	2	head/feet
COR BONE	3.0	3.0	YC	bone	2	front/back
SAG BONE	3.0	3.0	YC	bone	2	left/right

The axial, coronal and sagittal recons are relative to the plane of the spine and may not necessarily be true axial, coronal and sagittal planes.

CT Peds Lumbar Spine

Updated
5/4/2024

Indications - pain, trauma, fracture, extremity weakness, mass, infection.

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

GENERAL SCAN NOTES

Move patient's arms over head if possible. Remove any metal from the imaging field of view.

Topogram - T12 through bottom of SI joints.

Craniocaudal scan coverage - T12 through bottom of SI joints.

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, 60 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	90	on	NA	0.80	16	1.5	0.75	11.7
Go Up 32	spiral	110	174	on	on 285	1.50	32	0.7	1.0	8.9
Sensation 64	spiral	120	40	on	NA	0.90	64	0.6	1.0	17.4
Definition 64	spiral	120	165	on	on	0.80	64	0.6	1.0	19.5
Go Top 64	spiral	100	366	on	on 285	1.50	64	0.6	1.0	5.2
Drive 128	spiral	120	116	on	on	0.80	128	0.6	1.0	9.8
Force 192	spiral	120	116	on	on	0.80	192	0.6	1.0	6.5

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX SOFT	3.0	3.0	Br40 / B30s	abdomen	3	head/feet
AX BONE	3.0	3.0	Br59 / B60s	bone/osteo	3	head/feet
COR BONE	3.0	3.0	Br59 / B60s	bone/osteo	3	front/back
SAG BONE	3.0	3.0	Br59 / B60s	bone/osteo	3	left/right

The axial, coronal and sagittal recons are relative to the plane of the spine and may not necessarily be true axial, coronal and sagittal planes.

CT Peds Lumbar Spine

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	small	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	med 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	Window Width/Level	Recon Direction
AX SOFT	2.5	2.5	std full	400/40	head/feet
AX BONE	2.5	2.5	bone full	2500/480	head/feet
COR BONE	2.5	2.5	bone full	2500/480	front/back
SAG BONE	2.5	2.5	bone full	2500/480	left/right

Must be first recon.

The axial, coronal and sagittal recons are relative to the plane of the spine and may not necessarily be true axial, coronal and sagittal planes.

PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	94	23	on	1.00	64	0.625	0.75	5.6

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX SOFT	3.0	3.0	B	abdomen	2	head/feet
AX BONE	3.0	3.0	YC	bone	2	head/feet
COR BONE	3.0	3.0	YC	bone	2	front/back
SAG BONE	3.0	3.0	YC	bone	2	left/right

The axial, coronal and sagittal recons are relative to the plane of the spine and may not necessarily be true axial, coronal and sagittal planes.

CT Peds Bony Pelvis

Updated
5/4/2024

Indications - trauma, fracture, dislocation, pain, bone tumor, soft tissue mass, infection, abscess, soft tissue gas, osteomyelitis.

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 - iliac crests through lesser trochanters.

Craniocaudal scan coverage - iliac crests through lesser trochanters.

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, 60 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	90	on	NA	0.80	16	1.50	0.75	7.8
Go Up 32	spiral	110	165	on	on 170	1.50	32	0.7	1.00	6.0
Sensation 64	spiral	120	40	on	NA	0.90	64	0.6	1.00	11.6
Definition 64	spiral	100	149	on	on	0.80	16	1.2	0.50	6.5
Go Top 64	spiral	100	224	on	on 170	1.50	64	0.6	1.00	3.5
Drive 128	spiral	100	104	on	on	0.80	32	1.2	0.50	3.3
Force 192	spiral	100	104	on	on	0.80	192	0.6	0.50	2.2

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX BONE	2.0	2.0	Br59 / B60s	bone/osteo	3	head/feet
COR BONE	2.0	2.0	Br59 / B60s	bone/osteo	3	front/back
SAG BONE	2.0	2.0	Br59 / B60s	bone/osteo	3	left/right
AX SOFT	2.0	2.0	Br40 / B30s	abdomen	3	head/feet

Add the following recons if the indication is **soft tissue** related.

COR SOFT	2.0	2.0	Br40 / B30s	abdomen	3	front/back
SAG SOFT	2.0	2.0	Br40 / B30s	abdomen	3	left/right

CT Peds Bony Pelvis

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
0-20 lbs (0-9 kgs)	helical	small	80	50-100	11.31	on	2.5	20	1.375	27.50	0.5
21-60 lbs (9-27.2 kgs)	helical	large	100	50-100	14.14	on	2.5	20	1.375	27.50	0.5
61-100 lbs (27.3-45.4 kgs)	helical	large	100	50-100	16.97	on	2.5	20	1.375	27.50	0.5
101-200 lbs (45.5-90.7 kgs)	helical	large	120	50-100	19.80	on	2.5	20	1.375	27.50	0.5
>200 lbs (>90.8 kgs)	helical	large	120	50-150	25.46	on	2.5	20	1.375	27.50	0.5

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

0-20 lbs (0-9 kgs)	helical	ped body	80	50-100	11.31	on	2.5	40	1.375	55.00	0.5
21-60 lbs (9-27.2 kgs)	helical	small body	100	50-100	14.14	on	2.5	40	1.375	55.00	0.5
61-100 lbs (27.3-45.4 kgs)	helical	large body	100	50-100	16.97	on	2.5	40	1.375	55.00	0.5
101-200 lbs (45.5-90.7 kgs)	helical	large body	120	50-100	19.80	on	2.5	40	1.375	55.00	0.5
>200 lbs (>90.8 kgs)	helical	large body	120	50-150	25.46	on	2.5	40	1.375	55.00	0.5

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
AX BONE	2.5	2.5	bone full	2500/480	head/feet
COR BONE	2.5	2.5	bone full	2500/480	front/back
SAG BONE	2.5	2.5	bone full	2500/480	left/right
AX SOFT	2.5	2.5	std full	400/40	head/feet

Must be first recon.

Add the following recons if the indication is **soft tissue** related.

COR SOFT	2.5	2.5	std full	400/40	front/back
SAG SOFT	2.5	2.5	std full	400/40	left/right

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	2.5

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX BONE	3.0	3.0	YC	bone	2	head/feet
COR BONE	3.0	3.0	YC	bone	2	front/back
SAG BONE	3.0	3.0	YC	bone	2	left/right
AX SOFT	3.0	3.0	B	abdomen	2	head/feet

Add the following recons if the indication is **soft tissue** related.

COR SOFT	3.0	3.0	B	abdomen	2	front/back
SAG SOFT	3.0	3.0	B	abdomen	2	left/right

CT Peds Extremity

Updated
5/4/2024

Indications - pain, trauma, fracture, extremity weakness, mass, infection.

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

GENERAL SCAN NOTES

Remove any metal from the imaging field of view.

Topogram/Coverage - As per adult MSK protocols.

Scan through entire fracture if one is present.

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, 60 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
Sensation 16	spiral	120	60	on	NA	0.80	16	0.75	1.00
Go Up 32	spiral	110	161	on	on 170	1.50	32	0.7	1.00
Sensation 64	spiral	120	60	on	NA	0.90	64	0.6	1.00
Definition 64	spiral	100	77	on	on	0.80	64	0.6	1.00
Go Top 64	spiral	100	224	on	on 170	1.50	64	0.6	1.00
Drive 128	spiral	100	54	on	on	0.80	128	0.6	1.00
Force 192	spiral	100	35	on	off	0.80	192	0.6	1.00

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX BONE	2.0	2.0	Br59 / B60s	bone/osteo	3	head/feet
COR BONE	2.0	2.0	Br59 / B60s	bone/osteo	3	front/back
SAG BONE	2.0	2.0	Br59 / B60s	bone/osteo	3	left/right
AX SOFT	2.0	2.0	Br40 / B30s	abdomen	3	head/feet

Add the following recons if the indication is **soft tissue** related.

COR SOFT	2.0	2.0	Br40 / B30s	abdomen	3	front/back
SAG SOFT	2.0	2.0	Br40 / B30s	abdomen	3	left/right

Perform all reconstructions using the planes prescribed on the images in the adult MSK protocols.

CT Peds Extremity

GE PARAMETERS & RECONS

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

	Scan Type	kV	mA Range	Noise Index	Smart mA	Slice Thick	Beam Coll	Pitch	Speed	Rot Time
0-20 lbs (0-9 kgs)	helical	80	50-100	11.31	on	2.5	20	1.375	27.50	0.5
21-60 lbs (9-27.2 kgs)	helical	100	50-100	14.14	on	2.5	20	1.375	27.50	0.5
61-100 lbs (27.3-45.4 kgs)	helical	100	50-100	16.97	on	2.5	20	1.375	27.50	0.5
101-200 lbs (45.5-90.7 kgs)	helical	120	50-100	19.80	on	2.5	20	1.375	27.50	0.5
>200 lbs (>90.8 kgs)	helical	120	50-150	25.46	on	2.5	20	1.375	27.50	0.5

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

0-20 lbs (0-9 kgs)	helical	80	50-100	11.31	on	2.5	40	1.375	55.00	0.5
21-60 lbs (9-27.2 kgs)	helical	100	50-100	14.14	on	2.5	40	1.375	55.00	0.5
61-100 lbs (27.3-45.4 kgs)	helical	100	50-100	16.97	on	2.5	40	1.375	55.00	0.5
101-200 lbs (45.5-90.7 kgs)	helical	120	50-100	19.80	on	2.5	40	1.375	55.00	0.5
>200 lbs (>90.8 kgs)	helical	120	50-150	25.46	on	2.5	40	1.375	55.00	0.5

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
AX BONE	2.5	2.5	bone full	2500/480	head/feet
COR BONE	2.5	2.5	bone full	2500/480	front/back
SAG BONE	2.5	2.5	bone full	2500/480	left/right
AX SOFT	2.5	2.5	std full	400/40	head/feet

Must be first recon.

Add the following recons if the indication is **soft tissue** related.

COR SOFT	2.5	2.5	std full	400/40	front/back
SAG SOFT	2.5	2.5	std full	400/40	left/right

PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time
Incisive 128	helical	120	94	23	on	1.00	64	0.625	0.75

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX BONE	3.0	3.0	YC	bone	2	head/feet
COR BONE	3.0	3.0	YC	bone	2	front/back
SAG BONE	3.0	3.0	YC	bone	2	left/right
AX SOFT	3.0	3.0	B	abdomen	2	head/feet

Add the following recons if the indication is **soft tissue** related.

COR SOFT	3.0	3.0	B	abdomen	2	front/back
SAG SOFT	3.0	3.0	B	abdomen	2	left/right