CT Abdomen/Pelvis

Updated 03/09/25
Reviewed 05/14/25

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

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: 100 mL Omnipaque-300, inject at 2.5 mL/sec.

70 secs scan delay for most indications.

90 secs scan delay for renal indications like pyelonephritis, renal abscess, renal infarct or renal vein thrombosis. Do not do delayed/excretory phase unless asked to do so.

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	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX SOFT	5.0	5.0	Br40 / B41f	mediastinum	3	head/feet
COR SOFT	5.0	5.0	Br40 / B41f	mediastinum	3	front/back
SAG SOFT	5.0	5.0	Br40 / B41f	mediastinum	3	left/right
AX 3s	3.0	3.0	Br40 / B41f	mediastinum	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 PRE SOFT	5.0	5.0	Br40 / B41f	mediastinum	3	head/feet

CT Abdomen/Pelvis

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	50-440	11.57	on	5	20	1.375	27.50	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	11.57	on	5	20	1.375	27.50	0.6	NA	NA	10.9
LS VCT 64	helical	large body	120	50-650	11.57	on	5	40	1.375	55.00	0.5	50	50	4.5
Disc VCT 64	helical	large body	120	50-650	11.57	on	5	40	1.375	55.00	0.5	NA	NA	4.5

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
AX SOFT	**5.0**	**5.0**	**std full**	**400/40**	**head/feet**
COR SOFT	5.0	5.0	std full	400/40	front/back
SAG SOFT	5.0	5.0	std full	400/40	left/right
AX 2.5s	2.5	2.5	std full	400/40	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 PRE SOFT	5.0	5.0	std full	400/40	head/feet

PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	9.4

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX SOFT	5.0	5.0	B	mediastinum	3	head/feet
COR SOFT	5.0	5.0	B	mediastinum	3	front/back
SAG SOFT	5.0	5.0	B	mediastinum	3	left/right
AX 3s	3.0	3.0	B	mediastinum	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	5.0	5.0	B	mediastinum	3	head/feet

CT Abdomen

Updated 03/09/25
Reviewed 05/14/25

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

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 to iliac crests (obtained during end inspiration).
Craniocaudal scan coverage - lung bases to iliac crests (obtained during end inspiration).
Adjust FOV (field of view) on topogram to smallest without cropping anatomy.
Scan parameters are the same as routine AP protocol.
IV Contrast: 100 mL Omnipaque-300, inject at 2.5 mL/sec.

70 secs scan delay for most indications.

90 secs scan delay for renal indications like pyelonephritis, renal abscess, renal infarct or renal vein thrombosis. Do not do delayed/excretory phase unless asked to do so.

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	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX SOFT	5.0	5.0	Br40 / B41f	mediastinum	3	head/feet
COR SOFT	5.0	5.0	Br40 / B41f	mediastinum	3	front/back
SAG SOFT	5.0	5.0	Br40 / B41f	mediastinum	3	left/right
AX 3s	3.0	3.0	Br40 / B41f	mediastinum	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 PRE SOFT	5.0	5.0	Br40 / B41f	mediastinum	3	head/feet

CT Abdomen

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	50-440	11.57	on	5	20	1.375	27.50	0.6	NA	NA	6.5
Opt 540	helical	large	120	50-440	11.57	on	5	20	1.375	27.50	0.6	NA	NA	6.5
LS VCT 64	helical	large body	120	50-650	11.57	on	5	40	1.375	55.00	0.5	50	50	2.7
Disc VCT 64	helical	large body	120	50-650	11.57	on	5	40	1.375	55.00	0.5	NA	NA	2.7

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
AX SOFT	**5.0**	**5.0**	**std full**	**400/40**	**head/feet**
COR SOFT	5.0	5.0	std full	400/40	front/back
SAG SOFT	5.0	5.0	std full	400/40	left/right
AX 2.5s	2.5	2.5	std full	400/40	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 PRE SOFT	5.0	5.0	std full	400/40	head/feet

PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	5.6

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX SOFT	5.0	5.0	B	mediastinum	3	head/feet
COR SOFT	5.0	5.0	B	mediastinum	3	front/back
SAG SOFT	5.0	5.0	B	mediastinum	3	left/right
AX 3s	3.0	3.0	B	mediastinum	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	5.0	5.0	B	mediastinum	3	head/feet

CT Pelvis (Body)

Updated 03/09/25
Reviewed 05/14/25

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

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 pubic symphysis (obtained during end inspiration).
Craniocaudal scan coverage - iliac crests through pubic symphysis (obtained during end inspiration).
Adjust FOV (field of view) on topogram to smallest without cropping anatomy.
Scan parameters are the same as routine AP protocol.
IV Contrast: 100 mL Omnipaque-300, inject at 2.5 mL/sec.

70 secs scan delay for most indications.

Do not do delayed/excretory phase unless asked to do so.

Oral Contrast: generally not needed 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	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
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

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 PRE SOFT	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet

CT Pelvis (Body)

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	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	4.4
Opt 540	helical	large	120	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	4.4
LS VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	50	50	1.8
Disc VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	NA	NA	1.8

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

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 PRE SOFT	2.5	2.5	std full	400/40	head/feet

PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	3.8

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

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

CT Chest/Abdomen/Pelvis

Updated 03/09/25
Reviewed 05/14/25

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

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: 100 mL Omnipaque-300, inject at 2.5 mL/sec.

70 secs scan delay for most indications.

90 secs scan delay for renal indications like pyelonephritis, renal abscess, renal infarct or renal vein thrombosis. Do not do delayed/excretory phase unless asked to do so.

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.

CT Chest/Abdomen/Pelvis

SIEMENS PARAMETERS & RECONS

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	1.5	0.5	20.8
Go Up 32	spiral	130	100	on	on 145	0.80	32	0.7	0.8	35.7
Sensation 64	spiral	120	200	on	NA	1.20	64	0.6	0.5	17.4
Definition 64	spiral	120	210	on	**off**	0.80	64	0.6	0.5	26.0
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.33	8.6
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	17.4
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	11.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Anatomy	Recon Direction
AX SOFT CAP	5.0	5.0	Br40 / B41f	mediastinum	3	CAP	head/feet
AX SOFT CAP 3s	3.0	3.0	Br40 / B41f	mediastinum	3	CAP	head/feet
COR SOFT CHEST	5.0	5.0	Br40 / B41f	mediastinum	3	chest	front/back
SAG SOFT CHEST	5.0	5.0	Br40 / B41f	mediastinum	3	chest	left/right
COR SOFT ABD/PEL	5.0	5.0	Br40 / B41f	mediastinum	3	abd/pel	front/back
SAG SOFT ABD/PEL	5.0	5.0	Br40 / B41f	mediastinum	3	abd/pel	left/right
AX LUNG	3.0	3.0	Br57 / B70f	lung	3	chest	head/feet
AX THINS CHEST	1.0 2.0 (16 slice)	1.0 2.0 (16 slice)	Br40 / B41f	mediastinum	3	chest	head/feet
AX MIPS CHEST	8.0	3.0	Br40 / B41f	lung	3	chest	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 CAP	5.0	5.0	Br40 / B41f	mediastinum	3	CAP	head/feet

CT Chest/Abdomen/Pelvis

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	11.57	on	5	20	1.375	27.50	0.5	NA	NA	14.5
Opt 540	helical	large	120	100-440	11.57	on	5	20	1.375	27.50	0.5	NA	NA	14.5
LS VCT 64	helical	lrg body	120	100-650	11.57	on	5	40	1.375	55.00	0.5	50	50	7.3
Disc VCT 64	helical	lrg body	120	100-650	11.57	on	5	40	1.375	55.00	0.5	NA	NA	7.3

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Anatomy	Recon Direction
AX SOFT CAP	**5.0**	**5.0**	**std full**	**400/40**	**CAP**	**head/feet**

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

AX SOFT CAP 2.5s	2.5	2.5	std full	400/40	CAP	head/feet
COR SOFT CHEST	5.0	5.0	std full	400/40	chest	front/back
SAG SOFT CHEST	5.0	5.0	std full	400/40	chest	left/right
COR SOFT ABD/PEL	5.0	5.0	std full	400/40	abd/pel	front/back
SAG SOFT ABD/PEL	5.0	5.0	std full	400/40	abd/pel	left/right
AX LUNG	2.5	2.5	lung	1600/-600	chest	head/feet
AX THINS CHEST	1.25	1.0	std full	400/40	chest	head/feet
AX MIPS CHEST	8.0	3.0	std full	1600/-600	chest	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 CAP	5.0	5.0	std full	400/40	CAP	head/feet

CT 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	120	115	20	on	1.00	64	0.625	0.75	15.0

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Anatomy	Recon Direction
AX SOFT CAP	5.0	5.0	B	mediastinum	3	CAP	head/feet
AX SOFT CAP 3s	3.0	3.0	B	mediastinum	3	CAP	head/feet
COR SOFT CHEST	5.0	5.0	B	mediastinum	3	chest	front/back
SAG SOFT CHEST	5.0	5.0	B	mediastinum	3	chest	left/right
COR SOFT ABD/PEL	5.0	5.0	B	mediastinum	3	abd/pel	front/back
SAG SOFT ABD/PEL	5.0	5.0	B	mediastinum	3	abd/pel	left/right
AX LUNG	3.0	3.0	YA	lung	3	chest	head/feet
AX THINS	1.0	0.8	B	mediastinum	3	chest	head/feet
AX MIPS CHEST	8.0	3.0	B	lung	3	chest	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	5.0	5.0	B	mediastinum	3	CAP	head/feet

CT Chest/Abdomen

Updated 03/09/25
Reviewed 05/14/25

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

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 to iliac crests (obtained during end inspiration).

Craniocaudal scan coverage - lung apices to iliac crests (obtained during end inspiration).

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

Scan parameters are the same as routine CAP protocol.

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: 100 mL Omnipaque-300, inject at 2.5 mL/sec.

70 secs scan delay for most indications.

90 secs scan delay for renal indications like pyelonephritis, renal abscess, renal infarct or renal vein thrombosis. Do not do delayed/excretory phase unless asked to do so.

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.

CT Chest/Abdomen

SIEMENS PARAMETERS & RECONS

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	1.5	0.5	20.8
Go Up 32	spiral	130	100	on	on 145	0.80	32	0.7	0.8	35.7
Sensation 64	spiral	120	200	on	NA	1.20	64	0.6	0.5	17.4
Definition 64	spiral	120	210	on	**off**	0.80	64	0.6	0.5	26.0
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.33	8.6
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	17.4
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	11.6

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Anatomy	Recon Direction
AX SOFT CHEST/ABD	5.0	5.0	Br40 / B41f	mediastinum	3	chest/abd	head/feet
AX SOFT CHEST/ABD 3s	3.0	3.0	Br40 / B41f	mediastinum	3	chest/abd	head/feet
COR SOFT CHEST/ABD	5.0	5.0	Br40 / B41f	mediastinum	3	chest/abd	front/back
SAG SOFT CHEST/ABD	5.0	5.0	Br40 / B41f	mediastinum	3	chest/abd	left/right
AX LUNG	3.0	3.0	Br57 / B70f	lung	3	chest	head/feet
AX THINS CHEST	1.0 2.0 (16 slice)	1.0 2.0 (16 slice)	Br40 / B41f	mediastinum	3	chest	head/feet
AX MIPS CHEST	8.0	3.0	Br40 / B41f	lung	3	chest	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 CHEST/ABD	5.0	5.0	Br40 / B41f	mediastinum	3	chest/abd	head/feet

CT Chest/Abdomen

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	11.57	on	5	20	1.375	27.50	0.5	NA	NA	10.9
Opt 540	helical	large	120	100-440	11.57	on	5	20	1.375	27.50	0.5	NA	NA	10.9
LS VCT 64	helical	large body	120	100-650	11.57	on	5	40	1.375	55.00	0.5	50	50	5.5
Disc VCT 64	helical	large body	120	100-650	11.57	on	5	40	1.375	55.00	0.5	NA	NA	5.5

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Anatomy	Recon Direction
AX SOFT CHEST/ABD	**5.0**	**5.0**	**std full**	**400/40**	**chest/abd**	**head/feet**

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

AX SOFT CHEST/ABD 2.5s	2.5	2.5	std full	400/40	chest/abd	head/feet
COR SOFT CHEST/ABD	5.0	5.0	std full	400/40	chest/abd	front/back
SAG SOFT CHEST/ABD	5.0	5.0	std full	400/40	chest/abd	left/right
AX LUNG	2.5	2.5	lung	1600/-600	chest	head/feet
AX THINS CHEST	1.25	1.0	std full	400/40	chest	head/feet
AX MIPS CHEST	8.0	3.0	std full	400/40	chest	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 CHEST/ABD	5.0	5.0	std full	400/40	chest/abd	head/feet

CT Chest/Abdomen

PHILIPS PARAMETERS & RECONS

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	11.3

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Anatomy	Recon Direction
AX SOFT CHEST/ABD	5.0	5.0	B	mediastinum	3	chest/abd	head/feet
AX SOFT CHEST/ABD 3s	3.0	3.0	B	mediastinum	3	chest/abd	head/feet
COR SOFT CHEST/ABD	5.0	5.0	B	mediastinum	3	chest/abd	front/back
SAG SOFT CHEST/ABD	5.0	5.0	B	mediastinum	3	chest/abd	left/right
AX LUNG	3.0	3.0	YA	lung	3	chest	head/feet
AX MIPS CHEST	8.0	3.0	B	lung	3	chest	head/feet
AX THINS	1.0	0.8	B	mediastinum	3	chest	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 CHEST/ABD	5.0	5.0	B	mediastinum	3	chest/abd	head/feet

CT Enterography Single-Phase

Updated 03/09/25
Reviewed 05/14/25

Indications - inflammatory bowel disease, Crohn's disease, ulcerative colitis, chronic abdominal pain or order for Enterography that doesn't specify multi-phase protocol.

Use CT Enterography charge (do not use CT Abdomen/Pelvis w/o + w/ 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.

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.

Scan parameters are the same as routine AP protocol.

IV Contrast:

Administer weight-based **Omnipaque-300** - **1 mL/kg** up to **150 mL** (100 mL minimum).

Inject at **3 mL/sec** followed by 40 mL saline flush.

Oral Contrast:

Oral CitraSelect or Volumen 450 mL bottle - 1 bottle 45 mins, 1 bottle 30 mins and 1 bottle 15 mins prior to scan.

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	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

VENOUS PHASE (70 secs)

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	left/right

CT Enterography Single-Phase

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	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
LS VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	50	50	4.5
Disc VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	NA	NA	4.5

VENOUS PHASE (70 secs)

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction
AX VENOUS	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**
COR VENOUS	2.5	2.5	std full	400/40	front/back
SAG VENOUS	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	120	115	20	on	1.00	64	0.625	0.75	9.4

VENOUS PHASE (70 secs)

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX VENOUS	3.0	3.0	B	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	B	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	B	mediastinum	3	left/right

CT Enterography Multi-Phase

Updated 03/09/25
Reviewed 05/14/25

Indications - small bowel or colonic tumor or occult (non acute) GI bleeding.
Use CT Enterography charge (do not use CT Abdomen/Pelvis w/o + w/ 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.
Topogram - lung bases through pubic symphysis (obtained during end inspiration).
Craniocaudal scan coverage - lung bases through pubic symphysis on all phases (obtained during end inspiration).
Adjust FOV (field of view) on topogram to smallest without cropping anatomy.
Scan parameters are the same as routine AP protocol for all phases.
IV Contrast:

Administer weight-based **Omnipaque-300** - **1 mL/kg** up to **150 mL** (100 mL minimum).
Inject at **3 mL/sec** followed by 40 mL saline flush.

Oral Contrast:

Oral CitraSelect or Volumen 450 mL bottle - 1 bottle 45 mins, 1 bottle 30 mins and 1 bottle 15 mins prior to scan.

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 Enterography Multi-Phase

SIEMENS PARAMETERS & RECONS

For the **Pre Contrast**, **Enteric (45 secs)** and **Venous (70 secs)** phases:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX PRE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR PRE	3.0	3.0	Br40 / B41f	mediastinum	3	front/back

ENTERIC PHASE (45 secs)

AX ENTERIC	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR ENTERIC	3.0	3.0	Br40 / B41f	mediastinum	3	front/back

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	left/right

CT Enterography Multi-Phase

GE PARAMETERS & RECONS

For the **Pre Contrast**, **Enteric (45 secs)** and **Venous (70 secs)** 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	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
LS VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	50	50	4.5
Disc VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	NA	NA	4.5

PRE CONTRAST PHASE

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction	
AX PRE	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR PRE	2.5	2.5	std full	400/40	front/back	

ENTERIC PHASE (45 secs)

AX ENTERIC	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR ENTERIC	2.5	2.5	std full	400/40	front/back	

VENOUS PHASE (70 secs)

AX VENOUS	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR VENOUS	2.5	2.5	std full	400/40	front/back	
SAG VENOUS	2.5	2.5	std full	400/40	left/right	

CT Enterography Multi-Phase

PHILIPS PARAMETERS & RECONS

For the **Pre Contrast**, **Enteric (45 secs)** and **Venous (70 secs)** phases:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	9.4

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX PRE	3.0	3.0	B	mediastinum	3	head/feet
COR PRE	3.0	3.0	B	mediastinum	3	front/back

ENTERIC PHASE (45 secs)

AX ENTERIC	3.0	3.0	B	mediastinum	3	head/feet
COR ENTERIC	3.0	3.0	B	mediastinum	3	front/back

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	B	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	B	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	B	mediastinum	3	left/right

CTA Mesenteric Ischemia

Updated 03/09/25
Reviewed 05/14/25

Indications - mesenteric ischemia, celiac or superior mesenteric artery stenosis, chronic abdominal pain, abdominal pain after eating, intestinal/mesenteric angina.

Use CT Angio Combo AP w/ + w/o Contrast charge. Do not use CT AP w/ + w/o 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.

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

Craniocaudal scan coverage - lung bases through pubic symphysis on all phases (obtained during end inspiration).

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

IV Contrast:

Administer weight-based **Omnipaque-350** - **1 mL/kg** up to **150 mL** (100 mL minimum).

Inject at **4 mL/sec** followed by 40 mL saline flush, 20-gauge or larger in forearm or more proximal.

Bolus track off proximal abdominal aorta triggered at **120 HU**.

Oral Contrast:

If the patient can tolerate, give him/her 24 oz water 30 mins prior to imaging.

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.

CTA Mesenteric Ischemia

SIEMENS PARAMETERS & RECONS

For the **Pre Contrast** and **Venous (70 secs)** phases:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

For the **Arterial** phase:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	0.75	0.5	26.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	64	0.6	0.5	5.4
Definition 64	spiral	120	180	on	on	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX PRE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet

ARTERIAL PHASE

AX ARTERIAL	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
SAG ARTERIAL	3.0	3.0	Br40 / B41f	mediastinum	3	left/right
AX ART MIPS	5.0	3.0	Br40 / B41f	mediastinum	3	head/feet
3D VRT (& spin)	0.75	0.5	Bf37f / B31f	CT angio		

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	left/right

CTA Mesenteric Ischemia

GE PARAMETERS & RECONS

For the **Pre Contrast**, **Arterial** and **Venous (70 secs)** 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	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
LS VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	50	50	4.5
Disc VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	NA	NA	4.5

PRE CONTRAST PHASE

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction	
AX PRE	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**

ARTERIAL PHASE

AX ARTERIAL	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
SAG ARTERIAL	2.5	2.5	std full	400/40	left/right	
AX ART MIPS	5.0	3.0	std full	400/40	head/feet	
3D VRT (spin)	0.625	0.625	std full	400/40		

VENOUS PHASE (70 secs)

AX VENOUS	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR VENOUS	2.5	2.5	std full	400/40	front/back	
SAG VENOUS	2.5	2.5	std full	400/40	left/right	

CTA Mesenteric Ischemia

PHILIPS PARAMETERS & RECONS

For the **Pre Contrast**, **Arterial** and **Venous (70 secs)** phases:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	9.4

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX PRE	3.0	3.0	B	mediastinum	3	head/feet

ARTERIAL PHASE

AX ARTERIAL	3.0	3.0	B	mediastinum	3	head/feet
SAG ARTERIAL	3.0	3.0	B	mediastinum	3	left/right
AX ART MIPS	5.0	3.0	B	mediastinum	3	head/feet
3D VRT (spin)	0.75	0.5	B			

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	B	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	B	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	B	mediastinum	3	left/right

CTA Acute Bleed

Updated 03/09/25
Reviewed 05/14/25

Indications - acute GI bleeding, bright red blood per rectum, hematochezia, hematemesis.

This protocol can be used for acute bleeding in the chest, abdomen, pelvis or extremities.

Use CT Angio charges. Do not use CT without and with charges.

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 on all phases (obtained during end inspiration).

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

IV Contrast:

Administer weight-based **Omnipaque-350** - **1 mL/kg** up to **150 mL** (100 mL minimum).

Inject at **4 mL/sec** followed by 40 mL saline flush, 20-gauge or larger in forearm or more proximal.

Bolus track off proximal abdominal aorta triggered at **150 HU** + **10 secs**.

The delay phase has been removed from this protocol.

Oral 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.

CTA Acute Bleed

SIEMENS PARAMETERS & RECONS

For the **Pre Contrast** and **Venous (70 secs)** phases:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

For the **Arterial** phase:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	0.75	0.5	26.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	64	0.6	0.5	5.4
Definition 64	spiral	120	180	on	on	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX PRE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet

ARTERIAL PHASE

AX ARTERIAL	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
SAG ARTERIAL	3.0	3.0	Br40 / B41f	mediastinum	3	left/right
COR ART MIPS	5.0	3.0	Br40 / B41f	mediastinum	3	front/back
3D VRT (& spin)	0.75	0.5	Bv36 / B31f	CT angio		

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	left right

CTA Acute Bleed

GE PARAMETERS & RECONS

For the **Pre Contrast**, **Arterial** and **Venous (70 secs)** 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	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
LS VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	50	50	4.5
Disc VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	NA	NA	4.5

PRE CONTRAST PHASE

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction	
AX PRE	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**

ARTERIAL PHASE

AX ARTERIAL	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
SAG ARTERIAL	2.5	2.5	std full	400/40	left/right	
COR ART MIPS	5.0	3.0	std full	400/40	front/back	
3D VRT (spin)	0.625	0.625	std full	400/40		

VENOUS PHASE (70 secs)

AX VENOUS	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR VENOUS	2.5	2.5	std full	400/40	front/back	
SAG VENOUS	2.5	2.5	std full	400/40	left/right	

CTA Acute Bleed

PHILIPS PARAMETERS & RECONS

For the **Pre Contrast**, **Arterial** and **Venous (70 secs)** phases:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	9.4

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX PRE	3.0	3.0	B	mediastinum	3	head/feet

ARTERIAL PHASE

AX ARTERIAL	3.0	3.0	B	mediastinum	3	head/feet
SAG ARTERIAL	3.0	3.0	B	mediastinum	3	left/right
COR ART MIPS	5.0	3.0	B	mediastinum	3	front/back
3D VRT (spin)	0.75	0.5	B			

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	B	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	B	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	B	mediastinum	3	left/right

CT Liver

Updated 03/09/25
Reviewed 05/14/25

Indications - abnormal LFTs, jaundice, biliary dilatation, cirrhosis, chronic liver disease, liver mass, hepatocellular carcinoma, cholangiocarcinoma, hepatitis B or C.

Use regular CT without and with charges. Do not use CT Angio charges.

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:

Pre contrast - **abdomen only** (lung bases to iliac crests) (obtained during end inspiration).

Arterial phase - **abdomen only** (lung bases to iliac crests) (obtained during end inspiration).

Venous phase - **abdomen/pelvis** (lung bases through pubic symphysis) (obtained during end inspiration).

Delay phase - **abdomen only** (lung bases to iliac crests) (obtained during end inspiration).

If only the abdomen is ordered, only image the abdomen regardless of what CC coverage above indicates.

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

IV Contrast:

Administer weight-based **Omnipaque-300** - **1 mL/kg** up to **150 mL** (100 mL minimum).

Inject at **4 mL/sec** followed by 40 mL saline flush, 20-gauge or larger in forearm or more proximal.

Bolus track off proximal abdominal aorta triggered at **150 HU** + **15 secs**.

Oral Contrast: generally 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 Liver

SIEMENS PARAMETERS & RECONS

For the **Pre Contrast**, **Arterial**, **Venous (70 secs)** and **Delay (5 mins)** phases:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

PRE CONTRAST

Name of Series	Thick	Interval	Kernel	IR Lvl	Window	Recon Direction
AX PRE	3.0	3.0	Br40 / B41f	3	mediastinum	head/feet
COR PRE	3.0	3.0	Br40 / B41f	3	mediastinum	front/back

LATE ARTERIAL PHASE

AX LATE ART	3.0	3.0	Br40 / B41f	3	mediastinum	head/feet
COR LATE ART	3.0	3.0	Br40 / B41f	3	mediastinum	front/back

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	Br40 / B41f	3	mediastinum	head/feet
COR VENOUS	3.0	3.0	Br40 / B41f	3	mediastinum	front/back
SAG VENOUS	3.0	3.0	Br40 / B41f	3	mediastinum	left/right

DELAY PHASE (5 mins)

AX DELAY	3.0	3.0	Br40 / B41f	3	mediastinum	head/feet
COR DELAY	3.0	3.0	Br40 / B41f	3	mediastinum	front/back

CT Liver

GE PARAMETERS & RECONS

For the **Pre Contrast**, **Arterial**, **Venous (70 secs)** and **Delay (5 mins)** 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	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
LS VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	50	50	4.5
Disc VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	NA	NA	4.5

PRE CONTRAST

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction	
AX PRE	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	
COR PRE	2.5	2.5	std full	400/40	front/back	**Must be first recon.**

LATE ARTERIAL PHASE

AX LATE ART	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR LATE ART	2.5	2.5	std full	400/40	front/back	

VENOUS PHASE (70 secs)

AX VENOUS	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR VENOUS	2.5	2.5	std full	400/40	front/back	
SAG VENOUS	2.5	2.5	std full	400/40	left/right	

DELAY PHASE (5 mins)

AX DELAY	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR DELAY	2.5	2.5	std full	400/40	front/back	

CT Liver

PHILIPS PARAMETERS & RECONS

For the **Pre Contrast**, **Arterial**, **Venous (70 secs)** and **Delay (5 mins)** phases:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	9.4

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX PRE	3.0	3.0	B	mediastinum	3	head/feet
COR PRE	3.0	3.0	B	mediastinum	3	front/back

ARTERIAL PHASE

AX LATE ART	3.0	3.0	B	mediastinum	3	head/feet
COR LATE ART	3.0	3.0	B	mediastinum	3	front/back

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	B	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	B	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	B	mediastinum	3	left/right

DELAY PHASE (5 mins)

AX DELAY	3.0	3.0	B	mediastinum	3	head/feet
COR DELAY	3.0	3.0	B	mediastinum	3	front/back

CTA Liver Pre-SIRT

Updated 03/09/25
Reviewed 05/14/25

Indications - pre procedure planning for radioembolization of liver mass.
Use CT Angio Combo AP w/ + w/o Contrast charge. Do not use CT AP w/ + w/o 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.
Topogram - lung bases through pubic symphysis (obtained during end inspiration).
Craniocaudal scan coverage - Lung bases through pubic symphysis on both phases (obtained during end inspiration).
Adjust FOV (field of view) on topogram to smallest without cropping anatomy.
IV Contrast:

Administer weight-based **Omnipaque-350** - **1 mL/kg** up to **150 mL** (100 mL minimum).
Inject at **4 mL/sec** followed by 40 mL saline flush, 20-gauge or larger in forearm or more proximal.
Bolus track off proximal abdominal aorta triggered at **100 HU**.

Oral Contrast: generally 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.

CTA Liver Pre-SIRT

SIEMENS PARAMETERS & RECONS

For the **Arterial** phase:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	0.75	0.5	26.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	64	0.6	0.5	5.4
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

For the **Venous (70 secs)** phase:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	on	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

ARTERIAL PHASE

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX ARTERIAL	1.0	1.0	Br40 / B41f	mediastinum	3	head/feet
3D VRT (& spin)	0.75	0.5	Bv36 / B31f	CT angio		

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	left/right
AX VENOUS THINS	1.0	1.0	Br40 / B41f	mediastinum	3	head/feet

Volume series on whole liver and on right lobe only.

CTA Liver Pre-SIRT

GE PARAMETERS & RECONS

For the **Arterial** 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	50-440	23.14	on	1.25	20	1.375	27.50	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	23.14	on	1.25	20	1.375	27.50	0.6	NA	NA	10.9
LS VCT 64	helical	large body	120	50-650	23.14	on	1.25	40	1.375	55.00	0.5	50	50	4.5
Disc VCT 64	helical	large body	120	50-650	23.14	on	1.25	40	1.375	55.00	0.5	NA	NA	4.5

For the **Venous (70 secs)** 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	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
LS VCT 64	helical	lrg body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	50	50	4.5
Disc VCT 64	helical	lrg body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	NA	NA	4.5

ARTERIAL PHASE

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction	
AX ARTERIAL	**1.25**	**1.25**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
3D VRT (& spin)	0.625	0.625	std full	400/40		

VENOUS PHASE (70 secs)

AX VENOUS	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR VENOUS	2.5	2.5	std full	400/40	front/back	
SAG VENOUS	2.5	2.5	std full	400/40	left/right	
AX VENOUS THINS	1.25	1.25	std full	400/40	head/feet	

Volume series on whole liver and on right lobe only.

CTA Liver Pre-SIRT

PHILIPS PARAMETERS & RECONS

For the **Arterial** and **Venous (70 secs)** phases:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	9.4

ARTERIAL PHASE

AX ARTERIAL	1.0	1.0	B	mediastinum	3	head/feet
3D VRT (spin)	0.75	0.5	B			

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	B	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	B	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	B	mediastinum	3	left/right
AX VENOUS THINS	1.0	1.0	B	mediastinum	3	head/feet

Volume series on whole liver and on right lobe only.

CT Pancreas

Updated 03/09/25
Reviewed 05/14/25

Indications - pancreatic mass, pancreatic duct dilatation, biliary dilatation, chronic pancreatitis, status post Whipple or distal pancreatectomy.

Use CT AP w/ + w/o Contrast charge. Do not use CT Angio Combo AP w/ + w/o 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.

Topogram - Lung bases through pubic symphysis (obtained during end inspiration).

Craniocaudal scan coverage:

Pre contrast - **abdomen only** (lung bases to iliac crests) (obtained during end inspiration).

Arterial phase - **abdomen only** (lung bases to iliac crests) (obtained during end inspiration).

Venous phase - **abdomen/pelvis** (lung bases through pubic symphysis) (obtained during end inspiration).

Delay phase - **abdomen only** (lung bases to iliac crests) (obtained during end inspiration).

If only the abdomen is ordered, only image the abdomen regardless of what coverage areas below indicate.

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

IV Contrast:

Administer weight-based **Omnipaque-300** - **1 mL/kg** up to **150 mL** (100 mL minimum).

Inject at **4 mL/sec** followed by 40 mL saline flush, 20-gauge or larger in forearm or more proximal.

Bolus track off proximal abdominal aorta triggered at **150 HU** + **15 secs**.

Oral Contrast:

Patient receives 16 oz water 20 mins prior to exam and 8-16 oz more just before getting on the scanner.

If patient has undergone prior pancreas surgery, use regular water-soluble contrast instead with same timing.

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 Pancreas

SIEMENS PARAMETERS & RECONS

For the **Pre Contrast**, **Arterial**, **Venous (70 secs)** and **Delay (5 mins)** phases:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX PRE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet

LATE ARTERIAL PHASE

AX LATE ART	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR LATE ART	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG LATE ART	3.0	3.0	Br40 / B41f	mediastinum	3	left/right

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	left/right

DELAY PHASE (5 mins)

AX DELAY	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet

CT Pancreas

GE PARAMETERS & RECONS

For the **Pre Contrast**, **Arterial**, **Venous (70 secs)** and **Delay (5 mins)** 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	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
LS VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	50	50	4.5
Disc VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	NA	NA	4.5

PRE CONTRAST PHASE

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction	
AX PRE	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**

LATE ARTERIAL PHASE

AX LATE ART	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR LATE ART	2.5	2.5	std full	400/40	front/back	
SAG LATE ART	2.5	2.5	std full	400/40	left/right	

VENOUS PHASE (70 secs)

AX VENOUS	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR VENOUS	2.5	2.5	std full	400/40	front/back	
SAG VENOUS	2.5	2.5	std full	400/40	left/right	

DELAY PHASE (5 mins)

AX DELAY	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**

CT Pancreas

PHILIPS PARAMETERS & RECONS

For the **Pre Contrast**, **Arterial**, **Venous (70 secs)** and **Delay (5 mins)** phases:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	9.4

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX PRE	3.0	3.0	B	mediastinum	3	head/feet

ARTERIAL PHASE

AX LATE ART	3.0	3.0	B	mediastinum	3	head/feet
COR LATE ART	3.0	3.0	B	mediastinum	3	front/back
SAG LATE ART	3.0	3.0	B	mediastinum	3	left/right

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	B	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	B	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	B	mediastinum	3	left/right

DELAY PHASE (5 mins)

AX DELAY	3.0	3.0	B	mediastinum	3	head/feet

CT Pancreatitis

Updated 03/09/25
Reviewed 05/14/25

Indications - acute pancreatitis, pancreatic hemorrhage or necrosis, peripancreatic fluid collection.

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:

Pre contrast - **abdomen only** (lung bases to iliac crests) (obtained during end inspiration).

Venous phase - **abdomen/pelvis** (lung bases through pubic symphysis) (obtained during end inspiration).

If only the abdomen is ordered, only image the abdomen regardless of what coverage areas below indicate.
Adjust FOV (field of view) on topogram to smallest without cropping anatomy.
IV Contrast:

Administer weight-based **Omnipaque-300** - **1 mL/kg** up to **150 mL** (100 mL minimum).

Inject at **3 mL/sec** followed by 40 mL saline flush, 20-gauge or larger in forearm or more proximal.

Oral Contrast:

Give routine oral contrast 45 mins before and another 8 oz cup 5 mins before patient gets on scanner.

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 Pancreatitis

SIEMENS PARAMETERS & RECONS

For the **Pre Contrast** and **Venous (70 secs)** phases:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX PRE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	left/right

CT Pancreatitis

GE PARAMETERS & RECONS

For the **Pre Contrast** and **Venous (70 secs)** 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	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
LS VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	50	50	4.5
Disc VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	NA	NA	4.5

PRE CONTRAST PHASE

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

Must be first recon.

VENOUS PHASE (70 secs)

AX VENOUS	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**
COR VENOUS	2.5	2.5	std full	400/40	front/back
SAG VENOUS	2.5	2.5	std full	400/40	left/right

Must be first recon.

CT Pancreatitis

PHILIPS PARAMETERS & RECONS

For the **Pre Contrast** and **Venous (70 secs)** phases:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	9.4

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX PRE	3.0	3.0	B	mediastinum	3	head/feet

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	B	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	B	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	B	mediastinum	3	left/right

CT Adrenal

Updated 03/09/25
Reviewed 05/14/25

Indications - adrenal mass/adenoma/pheochromocytoma/hemorrhage, abnormal endocrine function, hyperaldosteronism, hypercortisolism, Cushing's disease.

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:

Pre contrast - **abdomen only** (lung bases to iliac crests) (obtained during end inspiration).

Venous phase - **abdomen/pelvis** (lung bases through pubic symphysis) (obtained during end inspiration).

Delay phase - **abdomen only** (lung bases to iliac crests) (obtained during end inspiration).

If only the abdomen is ordered, only image the abdomen regardless of what coverage areas below indicate.
Adjust FOV (field of view) on topogram to smallest without cropping anatomy.
IV Contrast:

Administer weight-based **Omnipaque-300** - **1 mL/kg** up to **150 mL** (100 mL minimum).

Inject at **3 mL/sec** followed by 40 mL saline flush, 20-gauge or larger in forearm or more proximal.

Oral Contrast: generally not given for this protocol.

After the pre contrast scan:

Send the pre contrast recons to PACS then have an Rad check the images. If there is no mass or the mass has a HU <10, then it is very likely a benign adenoma and the SCAN CAN BE STOPPED HERE.

Also if mass has been evaluated with CT or MRI before, check with a Rad to see if a full protocol needs to be performed. Usually don't need repeated full protocols on adrenal masses.

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 Adrenal

SIEMENS PARAMETERS & RECONS

For the **Pre Contrast** phase:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	0.75	0.5	15.6
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	13.4
Sensation 64	spiral	120	200	on	NA	1.20	64	0.6	0.5	3.3
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	13.0
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	4.9
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	6.5
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	4.3

For the **Venous (60 secs)** & **Delay (15 mins)** phase:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	on	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX PRE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR PRE	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
AX PRE THINS	1.0	1.0	Br40 / B41f	mediastinum	3	head/feet

VENOUS PHASE (60 secs)

AX 60 SECS	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR 60 SECS	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG 60 SECS	3.0	3.0	Br40 / B41f	mediastinum	3	left/right

DELAY PHASE (15 mins)

AX 15 MINS	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet

CT Adrenal

GE PARAMETERS & RECONS

For the **Pre Contrast**, **Venous (60 secs)** & **Delay (15 mins)** 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	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
LS VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	50	50	4.5
Disc VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	NA	NA	4.5

PRE CONTRAST PHASE

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction	
AX PRE	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR PRE	2.5	2.5	std full	400/40	front/back	
AX THINS	1.25	1.25	std full	400/40	head/feet	

VENOUS PHASE (60 secs)

AX 60 SECS	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR 60 SECS	2.5	2.5	std full	400/40	front/back	
SAG 60 SECS	2.5	2.5	std full	400/40	left/right	

DELAY PHASE (15 mins)

AX 15 MINS	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**

CT Adrenal

PHILIPS PARAMETERS & RECONS

For the **Pre Contrast**, **Venous (60 secs)** & **Delay (15 mins)** phases:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	9.4

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX PRE	3.0	3.0	B	mediastinum	3	head/feet
COR PRE	3.0	3.0	B	mediastinum	3	front/back
AX PRE THINS	1.0	1.0	B	mediastinum	3	head/feet

VENOUS PHASE (70 secs)

AX 60 SECS	3.0	3.0	B	mediastinum	3	head/feet
COR 60 SECS	3.0	3.0	B	mediastinum	3	front/back
SAG 60 SECS	3.0	3.0	B	mediastinum	3	left/right

DELAY PHASE (15 mins)

AX 15 MINS	3.0	3.0	B	mediastinum	3	head/feet

CT Renal

Updated 03/09/25
Reviewed 05/14/25

Indications - renal mass.
Use CT AP w/ + w/o Contrast charge. Do not use CT Angio Combo AP w/ + w/o 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.
Topogram - lung bases through pubic symphysis (obtained during end inspiration).
Craniocaudal scan coverage:

- Pre contrast - **abdomen only** (lung bases to iliac crests) (obtained during end inspiration).
- Arterial phase - **abdomen only** (lung bases to iliac crests) (obtained during end inspiration).
- Nephrographic phase - **abdomen/pelvis** (lung bases through pubic symphysis) (obtained during end inspiration).
- Excretory phase - **abdomen only** (lung bases to iliac crests) (obtained during end inspiration).

If only the abdomen is ordered, only image the abdomen regardless of what coverage areas below indicate.
Adjust FOV (field of view) on topogram to smallest without cropping anatomy.
IV Contrast:

- Administer weight-based **Omnipaque-300** - **1 mL/kg** up to **150 mL** (100 mL minimum).
- Inject at **4 mL/sec** followed by 40 mL saline flush, 20-gauge or larger in forearm or more proximal.
- Bolus track off proximal abdominal aorta triggered at **150 HU + 15 secs**.

Oral Contrast: generally 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 Renal

SIEMENS PARAMETERS & RECONS

For the **Pre Contrast**, **Arterial**, **Nephrographic (90 secs)** and **Excretory (5 mins)** phases:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX PRE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet

LATE ARTERIAL PHASE

AX LATE ART	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR LATE ART	3.0	3.0	Br40 / B41f	mediastinum	3	front/back

NEPHROGRAPHIC PHASE (90 secs)

AX NEPRHO	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR NEPRHO	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG NEPRHO	3.0	3.0	Br40 / B41f	mediastinum	3	left/right

EXCRETORY PHASE (5 mins)

AX EXCRETE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR EXCRETE	3.0	3.0	Br40 / B41f	mediastinum	3	front/back

CT Renal

GE PARAMETERS & RECONS

For the **Pre Contrast**, **Arterial**, **Nephrographic (90 secs)** and **Excretory (5 mins)** 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	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
LS VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	50	50	4.5
Disc VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	NA	NA	4.5

PRE CONTRAST PHASE

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction	
AX PRE	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**

LATE ARTERIAL PHASE

AX LATE ART	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR LATE ART	2.5	2.5	std full	400/40	front/back	

NEPHROGRAPHIC PHASE (90 secs)

AX NEPRHO	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR NEPRHO	2.5	2.5	std full	400/40	front/back	
SAG NEPRHO	2.5	2.5	std full	400/40	left/right	

EXCRETORY PHASE (5 mins)

AX EXCRETE	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR EXCRETE	2.5	2.5	std full	400/40	front/back	

CT Renal

PHILIPS PARAMETERS & RECONS

For the **Pre Contrast**, **Arterial**, **Nephrographic (90 secs)** and **Excretory (5 mins)** phases:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	5.6

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX PRE	3.0	3.0	B	mediastinum	3	head/feet

ARTERIAL PHASE

AX LATE ART	3.0	3.0	B	mediastinum	3	head/feet
COR LATE ART	3.0	3.0	B	mediastinum	3	front/back

VENOUS PHASE (70 secs)

AX NEPHRO	3.0	3.0	B	mediastinum	3	head/feet
COR NEPHRO	3.0	3.0	B	mediastinum	3	front/back
SAG NEPHRO	3.0	3.0	B	mediastinum	3	left/right

DELAY PHASE (5 mins)

AX EXCRETE	3.0	3.0	B	mediastinum	3	head/feet
COR EXCRETE	3.0	3.0	B	mediastinum	3	front/back

CT Renal Stone

Updated 03/09/25
Reviewed 05/14/25

Only use this protocol if protocoled by a Rad or specifically ordered as low-dose renal stone.
This is not the renal stone protocol CT ordered out of the ER. Order must specify **low-dose**.
Use CT Abdomen/Pelvis without IV 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.
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: not given for this protocol.
Oral 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	**120**	on	NA	0.80	16	1.5	0.5	7.8
Go Up 32	spiral	130	**55**	on	on 145	0.80	32	0.7	0.8	13.4
Sensation 64	spiral	120	**120**	on	NA	1.20	24	1.2	0.5	4.3
Definition 64	spiral	120	**108**	on	**off**	0.60	64	0.6	0.5	13.0
Go Top 64	spiral	120	**67**	on	on 145	0.80	64	0.6	0.5	4.9
Drive 128	spiral	120	**88**	on	on	0.60	128	0.6	0.5	6.5
Force 192	spiral	120	**88**	on	on	0.60	192	0.6	0.5	4.3

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
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

CT Renal Stone

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	50-440	**25.87**	on	**2.5**	50	1.375	27.5	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	**25.87**	on	**2.5**	50	1.375	27.5	0.6	NA	NA	10.9
LS VCT 64	helical	large body	120	50-650	**18.95**	on	**2.5**	40	1.375	55.0	0.5	30	70	4.5
Disc VCT 64	helical	large body	120	50-650	**18.95**	on	**2.5**	40	1.375	55.0	0.5	NA	NA	4.5

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

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	**69**	20	on	1.00	64	0.625	0.75	9.4

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

CT Urogram Routine

Updated 03/09/25
Reviewed 05/14/25

Indications - hematuria, renal/ureteral stones/calculi, nephrolithiasis, hydronephrosis, hydroureter, chronic urinary tract infection, urothelial malignancy.

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 on all phases (obtained during end inspiration).

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

IV Contrast:

Administer weight-based **Omnipaque-300** - **1 mL/kg** up to **150 mL** (100 mL minimum).

Inject at **2.5 mL/sec** followed by 40 mL saline flush, 20-gauge or larger in forearm or more proximal.

Oral contrast:

Give patient 32 oz water 30 mins prior to imaging.

Tell patient not to use the restroom prior to scan. The bladder needs to be distended for the best study.

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 Urogram Routine

SIEMENS PARAMETERS & RECONS

For the **Pre Contrast**, **Nephrographic (90 secs)** and **Excretory (5 mins)** phases:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX PRE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR PRE	3.0	3.0	Br40 / B41f	mediastinum	3	front/back

NEPHROGRAPHIC PHASE (90 secs)

AX NEPRHO	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR NEPRHO	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG NEPRHO	3.0	3.0	Br40 / B41f	mediastinum	3	left/right

Just before 5 mins, roll the patient three times to mix contrast within bladder.

PRONE EXCRETORY PHASE (5 mins)

Flip prone recons supine and proper right/left (i.e. mirror and both) before sending to PACS.

AX EXCRETE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR EXCRETE MIPS	5.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG EXCRETE MIPS	5.0	3.0	Br40 / B41f	mediastinum	3	left/right

CT Urogram Routine

GE PARAMETERS & RECONS

For the **Pre Contrast**, **Nephrographic (90 secs)** and **Excretory (5 mins)** 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	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
LS VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	50	50	4.5
Disc VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	NA	NA	4.5

PRE CONTRAST PHASE

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction	
AX PRE	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR PRE	2.5	2.5	std full	400/40	front/back	

NEPHROGRAPHIC PHASE (90 secs)

AX NEPRHO	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR NEPRHO	2.5	2.5	std full	400/40	front/back	
SAG NEPRHO	2.5	2.5	std full	400/40	left/right	

Just before 5 mins, roll the patient three times to mix contrast within bladder.

PRONE EXCRETORY PHASE (5 mins)

Flip prone recons supine and proper right/left (i.e. mirror and both) before sending to PACS.

AX EXCRETE	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR EXCRETE MIPS	5.0	3.0	std full	400/40	front/back	
SAG EXCRETE MIPS	5.0	3.0	std full	400/40	left/right	

CT Urogram Routine

PHILIPS PARAMETERS & RECONS

For the **Pre Contrast**, **Nephrographic (90 secs)** and **Excretory (5 mins)** phases:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	5.6

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX PRE	3.0	3.0	B	mediastinum	3	head/feet
COR PRE	3.0	3.0	B	mediastinum	3	front/back

NEPHROGRAPHIC PHASE (90 secs)

AX NEPHRO	3.0	3.0	B	mediastinum	3	head/feet
COR NEPHRO	3.0	3.0	B	mediastinum	3	front/back
SAG NEPHRO	3.0	3.0	B	mediastinum	3	left/right

Just before 5 mins, roll the patient three times to mix contrast within bladder.

PRONE EXCRETORY PHASE (5 mins)

Flip prone recons supine and proper right/left (i.e. mirror and both) before sending to PACS.

AX EXCRETE	3.0	3.0	B	mediastinum	3	head/feet
COR EXCRETE MIPS	5.0	3.0	B	mediastinum	3	front/back
SAG EXCRETE MIPS	5.0	3.0	B	mediastinum	3	left/right

CT Urogram Split-Bolus

Updated 03/09/25
Reviewed 05/14/25

Indications - hematuria, renal/ureteral stones/calculi, nephrolithiasis, hydronephrosis, hydroureter, chronic urinary tract infection, urothelial malignancy.

Use this protocol on anyone under 50 years of age and on those who get frequent CTs.

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 on both phases (obtained during end inspiration).

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

IV Contrast:

Administer weight-based **Omnipaque-300** - **1 mL/kg** up to **150 mL** (100 mL minimum).

Inject at **2.5 mL/sec** followed by 40 mL saline flush, 20-gauge or larger in forearm or more proximal.

Oral contrast:

Give patient 32 oz water 30 mins prior to imaging.

Tell patient not to use the restroom prior to scan. The bladder needs to be distended for the best study.

Split-Bolus Technique:

Inject patient with 1/3 IV contrast dose. **DO NOT SCAN PATIENT.**

About 3 mins after IV contrast, roll the patient three times to mix contrast within bladder.

After rolling the patient, inject the remaining 2/3 IV contrast dose.

90 seconds after start of second injection **SCAN PATIENT**.

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 Urogram Split-Bolus

SIEMENS PARAMETERS & RECONS

For the **Pre Contrast** and **Split-Bolus** phases:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX PRE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR PRE	3.0	3.0	Br40 / B41f	mediastinum	3	front/back

POST SPLIT-BOLUS PHASE

AX SPLIT	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR SPLIT	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG SPLIT	3.0	3.0	Br40 / B41f	mediastinum	3	left/right
COR SPLIT MIPS	5.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG SPLIT MIPS	5.0	3.0	Br40 / B41f	mediastinum	3	left/right

CT Urogram Split-Bolus

GE PARAMETERS & RECONS

For the **Pre Contrast** and **Split-Bolus** 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	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
Opt 540	helical	large	120	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	10.9
LS VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	50	50	4.5
Disc VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	NA	NA	4.5

PRE CONTRAST PHASE

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction	
AX PRE	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR PRE	2.5	2.5	std full	400/40	front/back	

POST SPLIT-BOLUS PHASE

AX SPLIT	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR SPLIT	2.5	2.5	std full	400/40	front/back	
SAG SPLIT	2.5	2.5	std full	400/40	left/right	
COR SPLIT MIPS	5.0	3.0	std full	400/40	front/back	
SAG SPLIT MIPS	5.0	3.0	std full	400/40	left/right	

CT Urogram Split-Bolus

PHILIPS PARAMETERS & RECONS

For the **Pre Contrast** and **Split-Bolus** phases:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	5.6

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX PRE	3.0	3.0	B	mediastinum	3	head/feet
COR PRE	3.0	3.0	B	mediastinum	3	front/back

POST SPLIT-BOLUS PHASE

AX SPLIT	3.0	3.0	B	mediastinum	3	head/feet
COR SPLIT	3.0	3.0	B	mediastinum	3	front/back
SAG SPLIT	3.0	3.0	B	mediastinum	3	left/right
COR SPLIT MIPS	5.0	3.0	B	mediastinum	3	front/back
SAG SPLIT MIPS	5.0	3.0	B	mediastinum	3	left/right

CT Cystogram

Updated 03/09/25
Reviewed 05/14/25

Indications - bladder mass, trauma, leak, rupture, post surgical injury.
Use CT Pelvis w/o Contrast charge (if IV not used) or CT Pelvis w/o + w/ Contrast (if IV given).

GENERAL SCAN NOTES

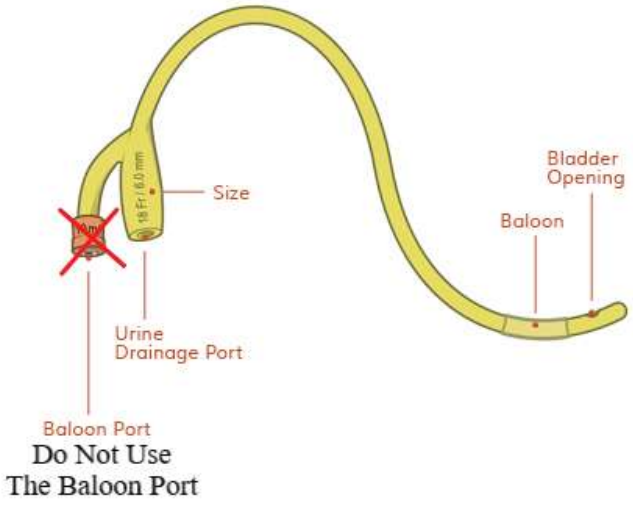
Move the patient's arms over his/her head if possible. Remove any metal from the imaging field of view.
Topogram - iliac crests through pubic symphysis (obtained during end inspiration).
Craniocaudal scan coverage - iliac crests through pubic symphysis (obtained during end inspiration).
Adjust FOV (field of view) on topogram to smallest without cropping anatomy.
IV Contrast:

Administer weight-based **Omnipaque-300** - **1 mL/kg** up to **150 mL** (100 mL minimum).
Inject at **2.5 mL/sec** followed by 40 mL saline flush, 20-gauge or larger in forearm or more proximal.
Only perform venous scan if exam ordered w/ + w/o contrast.

Oral Contrast: generally 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.

Urinary Catheter Instructions:

Clamp the urinary catheter prior to the patient coming to CT. You need the bladder at least partially distended for the exam.
Identify the type of urinary catheter (i.e. Foley versus suprapubic).
Differentiate the urine drainage port from the balloon port. **NEVER USE BALLOON PORT**.
Ensure that the urinary catheter is clamped prior to connecting the contrast mixture.
Connect the contrast mixture tubing to the **drainage port**. **DO NOT USE BALLOON PORT.**
Remember to unclamp the urinary catheter prior to the patient leaving the CT department.



CT Cystogram

SIEMENS PARAMETERS & RECONS

For the **Pre Contrast**, **Venous**, **Cystogram** and **Post Void** phases:

	Scan Mode	kV	mAs	Care Dose	Care kV & Lvl	Pitch	Acq	Coll	Rot Time	Scan Time
Sensation 16	spiral	120	200	on	NA	0.80	16	1.5	0.5	13.0
Go Up 32	spiral	130	92	on	on 145	0.80	32	0.7	0.8	22.3
Sensation 64	spiral	120	200	on	NA	1.20	24	1.2	0.5	7.2
Definition 64	spiral	120	180	on	**off**	0.60	64	0.6	0.5	21.7
Go Top 64	spiral	120	112	on	on 145	0.80	64	0.6	0.5	8.1
Drive 128	spiral	120	147	on	on	0.60	128	0.6	0.5	10.9
Force 192	spiral	120	147	on	on	0.60	192	0.6	0.5	7.2

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Kernel	Window	IR Lvl	Recon Direction
AX PRE	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
SAG PRE	3.0	3.0	Br40 / B41f	mediastinum	3	left/right

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	Br40 / B41f	mediastinum	3	left/right

CYSTOGRAM PHASE

Fill the bladder via the drainage catheter under gravity with up to 300 mL of contrast mixture. Stop infusing contrast if the patient experiences significant pain.

AX CYSTO	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet
COR CYSTO	3.0	3.0	Br40 / B41f	mediastinum	3	front/back
SAG CYSTO	3.0	3.0	Br40 / B41f	mediastinum	3	left/right

POST VOID PHASE

Perform a post void scan if the patient has had recent bladder surgery, bladder procedure or trauma. Unclamp the drainage catheter and allow to drain for 5 mins before scanning the patient.

AX POST VOID	3.0	3.0	Br40 / B41f	mediastinum	3	head/feet

CT Cystogram

GE PARAMETERS & RECONS

For the **Pre Contrast**, **Venous**, **Cystogram** and **Post Void** 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	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	4.4
Opt 540	helical	large	120	50-440	16.36	on	2.5	20	1.375	27.50	0.6	NA	NA	4.4
LS VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	50	50	1.8
Disc VCT 64	helical	large body	120	50-650	16.36	on	2.5	40	1.375	55.00	0.5	NA	NA	1.8

PRE CONTRAST PHASE

Name of Series	Thickness	Interval	Recon Algorithm	Window Width/Level	Recon Direction	
AX PRE	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
SAG PRE	2.5	2.5	std full	400/40	left/right	

VENOUS PHASE (70 secs)

AX VENOUS	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	
COR VENOUS	2.5	2.5	std full	400/40	front/back	**Must be first recon.**
SAG VENOUS	2.5	2.5	std full	400/40	left/right	

CYSTOGRAM PHASE

Fill the bladder via the drainage catheter under gravity with up to 300 mL of contrast mixture. Stop infusing contrast if the patient experiences significant pain.

AX CYSTO	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**
COR CYSTO	2.5	2.5	std full	400/40	front/back	
SAG CYSTO	2.5	2.5	std full	400/40	left/right	

POST VOID PHASE

Perform a post void scan if the patient has had recent bladder surgery, bladder procedure or trauma. Unclamp the drainage catheter and allow to drain for 5 mins before scanning the patient.

AX POST VOID	**2.5**	**2.5**	**std full**	**400/40**	**head/feet**	**Must be first recon.**

CT Cystogram

PHILIPS PARAMETERS & RECONS

For the **Pre Contrast**, **Venous**, **Cystogram** and **Post Void** phases:

	Scan Mode	kV	Avg mAs	Dose Index	3D Dose	Pitch	Detect	Colli	Rot Time	Scan Time
Incisive 128	helical	120	115	20	on	1.00	64	0.625	0.75	3.8

PRE CONTRAST PHASE

Name of Series	Thick	Interval	Filter	Window	iDose	Recon Direction
AX PRE	3.0	3.0	B	mediastinum	3	head/feet
COR PRE	3.0	3.0	B	mediastinum	3	front/back

VENOUS PHASE (70 secs)

AX VENOUS	3.0	3.0	B	mediastinum	3	head/feet
COR VENOUS	3.0	3.0	B	mediastinum	3	front/back
SAG VENOUS	3.0	3.0	B	mediastinum	3	left/right

CYSTOGRAM PHASE

Fill the bladder via the drainage catheter under gravity with up to 300 mL of contrast mixture. Stop infusing contrast if the patient experiences significant pain.

AX CYSTO	3.0	3.0	B	mediastinum	3	head/feet
COR CYSTO	3.0	3.0	B	mediastinum	3	front/back
SAG CYSTO	3.0	3.0	B	mediastinum	3	left/right

POST VOID PHASE

Perform a post void scan if the patient has had recent bladder surgery, bladder procedure or trauma. Unclamp the drainage catheter and allow to drain for 5 mins before scanning the patient.

AX POST VOID	3.0	3.0	B	mediastinum	3	head/feet