

CT Renal Stone

Updated 03/09/25

Reviewed 05/14/25

Only use this protocol if protocolled 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

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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