

Protocols of imaging acute abdomen

Abdomen :AbdRoutine

Specific Anatomic Region	Abdomen
Application	AbdRoutine (R/O abscess, FUO, etc.)
Scanner Used	Siemens Somatom Sensation 16
KV / Effective mAs / Rotation time (sec)	120 / 200 / 0.5
Detector Collimation (mm)	1.5
Slice Thickness (mm)	5.0 or 3.0
Feed / Rotation (mm)	24.0
Kernel	B30f
Increment (mm)	5.0 or 3.0
Image Order	cr-ca
Oral Contrast	750-1000 cc of 2% Hypaque
IV Contrast Volume and Type	100-120 cc of Omnipaque 350
Injection Rate	2-3 cc/sec
Scan Delay (sec)	60-80 sec
3D Technique Used	N/A

Comment: -2nd recon. 5x5 lung 80 kernel 3rd recon. 5x5 liver 30 kernel.
 Note: If better detail or MPR is needed one could go back and reconstruct at 1 mm intervals with 2 mm slice thickness.

Abdomen Kidney: Stone Protocol

Specific Anatomic Region	Abdomen
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Application	R/O renal or ureteral calculi	
Scanner Used	Siemens Somatom Sensation 16	
KV / Effective mAs / Rotation time (sec)	120 / 200 / 0.5	
Detector Collimation (mm)	1.5	
Slice Thickness (mm)	2 or 3	
Feed / Rotation (mm)	24.0	
Kernel	B30f	
Increment (mm)	2 or 1	
Image Order	cr-ca	
Oral Contrast	noncontrast study	
IV Contrast Volume and Type	none	
Injection Rate	N/A	
Scan Delay (sec)	N/A	
3D Technique Used	On select occasions MPR and VRT may be helpful	

Comment: -This is the classic noncontrast axial study although in select cases reconstructions may help to localize the stone. Depending on the CT findings a contrast study may be indicated.



Abdomen Small bowel: Suspected ischemia

Specific Anatomic Region	Small bowel
Application	Suspected ischemia

Author	Elliot K. Fishman, MD
Scanner Used	Sensation 16
KV / Effective mAs / Rotation time (sec)	120 kV/ 225 eff. mAs / 0.5 sec
Detector Collimation (mm)	0.75 mm
Slice Thickness (mm)	0.75 mm
Feed / Rotation (mm)	12.0 mm
Kernel	B30f medium smooth
Increment (mm)	0.75 mm x 0.5 mm (3D) 5mm x 5mm (filming)
Image Order	craniocaudal
Oral Contrast	1000cc of water
IV Contrast Volume and Type	120 cc Omnipaque 350
Injection Rate	3.0-3.5 cc/sec
Scan Delay (sec)	Arterial - 25-30 sec Venous- 30 sec later (55-60 sec)
3D Technique Used	VRT & MIP
Comment: -We do dual phase imaging to allow us to look at both arterial and venous patency as well as to define the pattern of bowel wall enhancement. The same protocol can be used to look for a source of GI bleeding.	

Abdomen Application: Pancreatitis

Specific Anatomic Region	Pancreas
Application	Pancreatitis
Author	Elliot K. Fishman, MD

Scanner Used	Sensation 16
KV / Effective mAs / Rotation time (sec)	120 kV/ 225 eff. mAs / 0.5 sec
Detector Collimation (mm)	0.75 mm or 1.5 mm
Slice Thickness (mm)	0.75 mm or 2 mm
Feed / Rotation (mm)	12.0 mm or 24.0 mm
Kernel	B30f medium smooth
Increment (mm)	0.75 mm x 0.5 mm (3D) 3mm x 3mm (routine) 5 mm x 5mm (filming)
Image Order	craniocaudal
Oral Contrast	water (1000 cc)
IV Contrast Volume and Type	120 cc Omnipaque 350
Injection Rate	3.0-3.5 cc/sec
Scan Delay (sec)	Arterial: 25-30 sec Venous: 50-60 sec
3D Technique Used	VRT and MIP

Comment: -Arterial phase imaging is usually reserved for cases of suspected bleed due to aneurysm or pseudoaneurysm. In most cases venous phase alone is adequate.

