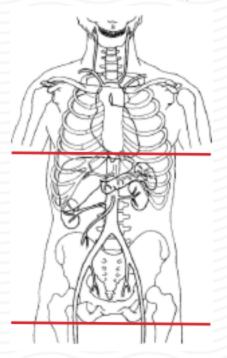
Updated: Jun 2022 New: May 2021



## CTV Abdomen/Pelvis with Contrast - VENOGRAM



Indications	hemodialysis access planning, renal cell carcinoma, vascular variants, venous thrombosis.		
Patient Position	Supine		
Contrast	IV = 125 mL		
Injection rate	4.0 mL/sec minimum 18 g		
Contrast timing	Smart prep at distal inferior vena cava (inferior to renal veins) or Venous phase 100-150 sec delay (variable). Preferred method is to use Smart prep as defined below.		
Respiration	Breath- hold		
Scan Parameters	dome of diaphragm through ischial tuberosity		
	Must be ordered / billed as CTA but have notes to indicate reason for CTV.		
	Required to have 3D renderings of venous system.		

PLANE	ALGORITHM	THICKNESS	DFOV	RECONS
Axial + C	Abdomen	5.0 mm	pt largest + 4 cm	100 - 150 sec delay *** see next line
				Prefer: smart prep at IVC inferior to renal veins. Use 60 sec delay with smart prep. Start scan at first blush in IVC.
Coronal & Sagittal + C	Abdomen	3.0 mm		MPR
Coronal & Sagittal + C	Abdomen	8 x 5 mm		MIPS
3D recons of venous system				3D renderings