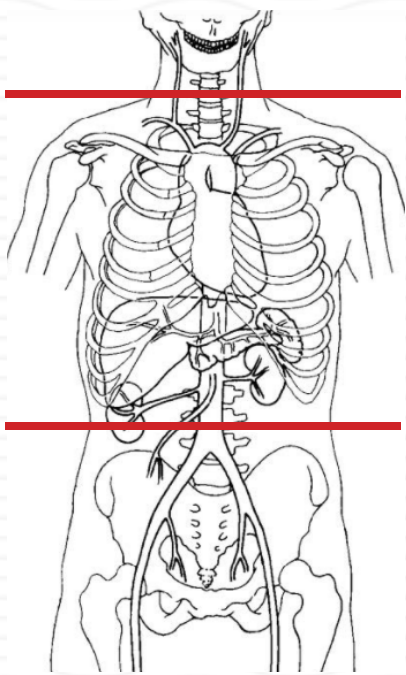


## CTV CHEST With Contrast - VENOGRAM



Indications	Venous thrombosis, superior vena cava syndrome, hemodialysis access planning, venous variants/ anomalies
Patient Position	Supine - arm above the head
Contrast	IV = 100 mL
Injection rate	2.5 mL/ sec minimum 20 g
Respiration	Breath- hold
Scan Parameters	just above shoulders to assure inclusion of subclavicular and jugular veins through renal arteries
	<b><u>Must be ordered / billed as CTA but have notes to indicate reason for CTV</u></b>
	Required to have 3D renderings of venous system

PLANE	ALGORITHM	THICKNESS	INTERVAL	DFOV	REFORMATS	
Axial + C	Mediastinum	5.0 mm		pt largest + 4 cm	CONTRAST	80 sec delay
Axial + C	Lung	2.0 mm	2.0 mm			
Sagittal & Coronal + C	Soft tissue	5.0 mm			X	
Axial + C	MIP	8.0 mm	3.0 mm		X	
3D rendering					3D recons	

**NOTES:**

- Use at least 20g needle
- Follow GFR and Metformin protocols for contrast studies
- LMP on pts of child-bearing age
- Shield children when possible

Any deviation from protocol MUST be Radiologist approved. Rad Director will be notified if this occurs without prior approval.