

# UT Southwestern Department of Radiology

**Protocol Name:** Pulmonary Embolism

**Orderable Name:** CT ANGIOGRAPHY CHEST PULMONARY ARTERIES WO/ W IV CONTRAST

Adult Only

**Epic Button:** Pulmonary Embolism

CTDIvol < 60 mGy  
DLP < 7500 mGycm

**Indications:** Shortness of breath, elevated d-dimer, chest pain, hypoxia

**# Acquisitions:** 1-2

Active Protocol

<p><b>Oral Contrast:</b> None</p>	<p><b>IV Contrast:</b> <a href="#">Link to Contrast Information</a></p> <p><b>Rate (mL/sec):</b> 5</p> <p><b>Volume (mL):</b> See Notes</p> <p><b>IV Access:</b> Power injection: 18-20g or larger in large vein (AC or more central)</p> <p><b>Notes:</b></p> <table style="margin-left: 20px;"> <tr> <td></td> <td style="text-align: right;">Volume (ml)</td> </tr> <tr> <td>Single Energy</td> <td style="text-align: right;">90</td> </tr> <tr> <td>Dual Energy</td> <td style="text-align: right;">75</td> </tr> </table>		Volume (ml)	Single Energy	90	Dual Energy	75	<p><b>Other Contrast:</b> None</p>	<p><b>Airway</b> Respiratory pause</p> <hr/> <p><b>Other Notes</b> Read by Cardiothoracic division</p> <p>Consult body habitus kVp selection chart.</p> <p>If pt&gt;280 lb: don't use dual energy mode on Force/Flash scanners.</p> <p>Bolus tracking: Trigger at 120 HU in pulmonary artery, wait 5 sec to start scan.</p>
	Volume (ml)								
Single Energy	90								
Dual Energy	75								

Last Change: 11/15/2022

Last Review: 1/16/2024

Links: [kVp Body Chart](#) [General Statements](#)

<b>Special Instructions</b>	Send to TeraRecon & Syngovia (volume)	Do not repeat CT scan, recon lung from 1st acquisition	If pt has known congenital heart disease, add 60 sec delay. CONSULT RAD TO OK.
<b>Acq # / Series Name</b>	<b>1</b> Pulmonary Arterial	<b>N/A</b> Pulmonary Arterial	<b>2</b> 60 Sec Delayed
<b>Phase Timing</b>	Bolus tracking	N/A	60 sec delay
<b>Acquisition Protocol</b>	<a href="#">Chest PE</a>	<a href="#">Recon Only</a>	<a href="#">Chest PE</a>
<b>Coverage</b>	Base of neck through L1	Same	Base of neck through L1
<b>FOV</b>	Targeted, including rib cage, ~1cm clearance	Same	Same
<b>Algorithm</b>	Soft Tissue	Lung	Soft Tissue
<b>Axial Recons</b>	3 mm, 1 mm	3 mm	3 mm
<b>Other Planar Recons</b>	2 mm coronal and sagittal		2 mm coronal and sagittal
<b>MIP Recons</b>	7x2mm axial		
<b>†DECT Philips</b>	Mono-50keV 1mm axial, VNC, Iodine Map 3mm axial		Mono-50keV 1mm axial, VNC, Iodine Map 3mm axial
<b>†DECT Siemens</b>	Mono-50keV 1mm axial, VNC, Iodine Map 3mm axial		Mono-50keV 1mm axial, VNC, Iodine Map 3mm axial
<b>†PC-CT Siemens</b>			

† When dual energy (DE) or photon counting (PC) CT is used

