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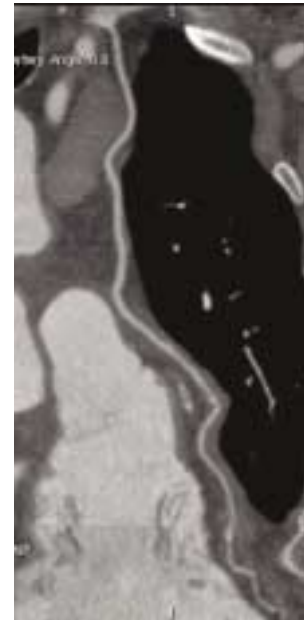
# CT Clinical Case Study CT Cardiac LIMA & RIMA Bypass Grafts with PE

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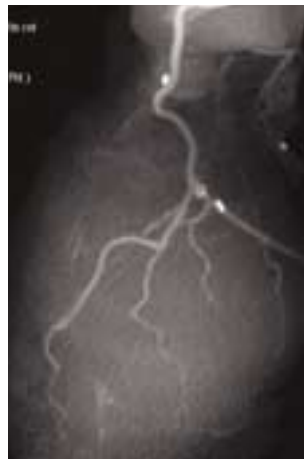
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**Figure 1**  
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LIMA - LAD



**Figure 2**  
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LIMA - diagonal.

## CT Clinical Case Study

### CT Cardiac

#### LIMA & RIMA Bypass Grafts with PE

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Saint-Denis, France

#### Patient History

A 72-year-old male with coronary disease had five bypass grafts: a Left Internal Mammmary Artery (LIMA) bypass graft of the LAD and diagonal and a Right Internal Mammmary Artery bypass graft of the LMB, LCx and PDA artery. The patient was scheduled for a routine follow-up CT exam to monitor the bypass grafts post surgery. At the time of the CT exam, the patient was in good health without any signs of cardiac insufficiency and there was no clear sign of phlebitis, except for some pain when provoked by palpation. So the patient had a gated chest CT exam to evaluate and monitor the coronary arteries, by-pass grafts and aorta, as well as to definitively rule out the suspicion of any pulmonary embolism.

#### Exam Protocol:

Scanner:	Lightspeed VCT
Scan Type:	Gated Chest Helical
Rotation Speed:	0.35 Seconds
Detector Configuration:	64 x 0.625
Slice Thickness:	0.625mm
Pitch:	0.26:1
SFOV:	Cardiac Large
kVp:	120
mAs:	254
Recon Mode:	SnapShot Segment
Total Scan Time:	7.7 Seconds
Coverage:	23.8 cm
Average HR:	58 BPM

#### Contrast Injection Parameters:

Three-phase injection using a two-barrel injector:

- Prep Delay 12 seconds
- 60 ml of contrast at 4.5cc/sec.  
+ 40 ml of saline at 3.8cc/sec.

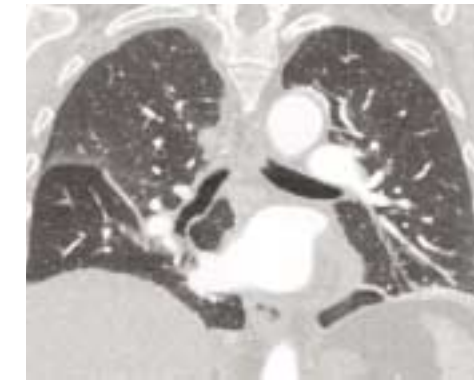
Contrast Type: Non-Ionic Omnipaque™ 350

#### Clinical Findings

The gated chest CT exam protocol (Triple RuleOut™) demonstrated that all five of the bypass grafts were patent. The aorta was within normal limits. There were, however, bilateral PEs in the left superior and inferior lobe and in the right inferior lobe of the lungs. After the CT exam, the patient was directly medicated to dissolve the PEs. The patient had a scintigraphy exam for final verification of no more PEs before being discharged from the hospital.



**Figure 3**  
Coronal reformatted bi-lateral MIP  
view demonstrating PEs.



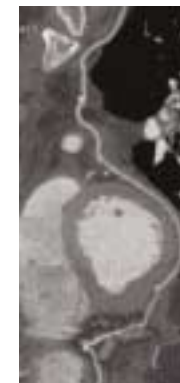
**Figure 4**  
Reformatted coronal view demonstrating  
no pericardial or pleural effusion.



**Figure 5**  
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RIMA - LMB.



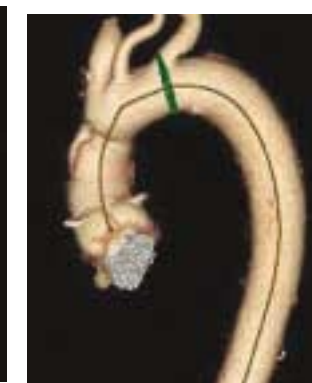
**Figure 6**  
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RIMA - LCx.



**Figure 7**  
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RIMA - PDA.



**Figure 8**  
Vessel analysis view of demonstrating normal aorta.



**Figure 9**  
Vessel analysis view of demonstration  
normal aorta.



**Figure 10**  
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view of normal aorta.