

 SELECT RADIOLOGY SOLUTIONS A Division of Radiology Imaging Associates	Lung Quantification Scan		
Approval: K. Shamlou, MD	rev:2	7/15/2026	

Lung Quantification

Radiopharmaceutical: 99mTc-MAA

Dose: 4 mCi

T1/2: 6 hours

Energy: 140 keV

CPT: 78597

Indications:

Approved indications include, but are not limited to:

1. Quantitative evaluation of differential lung function in patients, typically with lung cancer prior to lobectomy or pneumonectomy.

Patient Preparation:

- Chest x-ray or CT chest is required within one week of procedure.

Equipment:

1. GE 830 discovery – LEHRS collimator

Procedure:

1. Inject 99mTc-MAA.
2. Position patient on scan bed in supine position.
3. Acquire ANT, POST, RPO, LAO, LT LAT, RT LAT, LPO, and RAO images for 600k counts each. Place a 50 µCi marker on patient's right shoulder for ANT/POST acquisition.

Acquisition Parameters (Perfusion TOMO):

- **Matrix:** 128x128
- **Zoom:** 1.0 (full field)
- **Step/Shoot:** 140 sec/stop
- **Body contour:** ON
- **Supine, feet first, H-mode**
- **Acquire during motion:** ON
- **View angle:** 2 8 views

Acquisition Parameters: ANT/POST quant

- Matrix: 256 x 256
- Zoom: 1.0 (Full Field)
- 600 sec stop on time
- Position: Supine
- Orientation: Feet First

Lung Quantification Scan

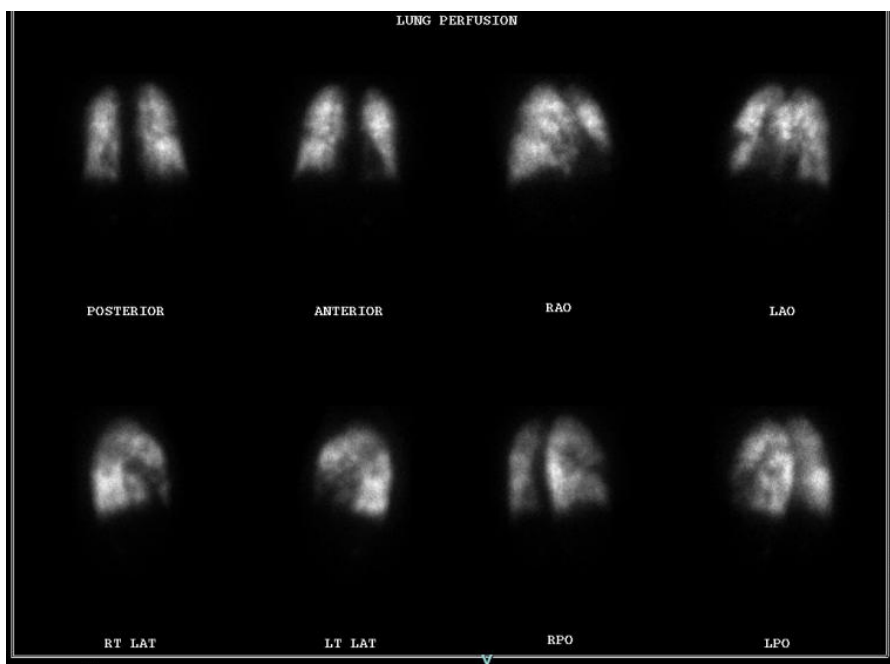
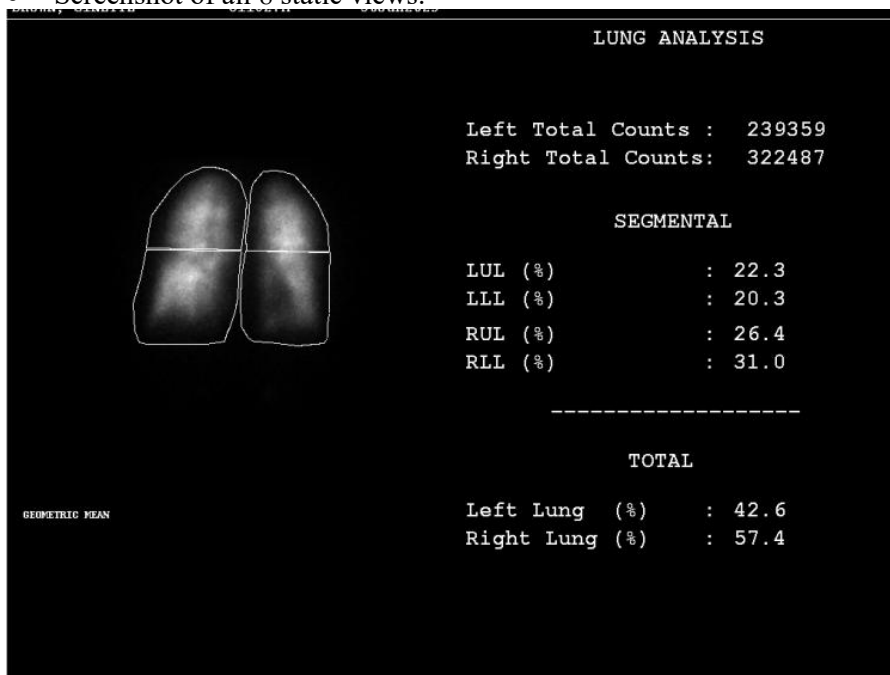
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Processing / PACS data sets

- Screenshot of quantification calculations demonstrating LUL, LLL, RUL, RLL perfusion percentages
- Screenshot of all 8 static views.



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