

Pulmonary Perfusion Study

***** Chest X-ray is used for correlation. It should be obtained within an hour or so but no more than 24 hours.**

Indications	<ul style="list-style-type: none"> • Diagnosis of PE • Evaluation of regional pulmonary perfusion
Exam Time	Procedure Imaging Time 30 minutes
Patient Preparation	None
Patient Positioning	Sitting preferably, supine is also acceptable. Or supine for injection and 1 min after injection, patient may be supine or sitting upright.
Radiopharmaceutical and Dose	^{99m} Tc-macroaggregated albumin (MAA), about 300,000 particles; however, this can be reduced to 100,000 to 200,000 in persons with known right to left shunts, infants and children.
Method of Administration:	Before injection the patient should, if possible, cough and take several deep breaths. Invert syringe immediately before injection to resuspend particles. With the patient supine, or as close to supine as possible, begin slow IV injections in antecubital vein during three to five respiratory cycles.
Conflicting exams and medications:	None
Imaging Device	Large FOV camera, if available
Acquisition Protocol	500k counts Routine View: <ol style="list-style-type: none"> 1- Posterior 2- Left Posterior Oblique 3- Left Lateral 4- Left anterior oblique 5- Anterior 6- Right anterior oblique 7- Right lateral 8- Right posterior oblique
Comments	<p>If Blood is introduced into the syringe containing the radiopharmaceutical, the injection must be completed immediately or small blood clots entrapping the radiopharmaceutical may cause hot spots in the lung. If the injected particles are too small, they will accumulate in the liver and spleen. Inpatients with right to left shunts, young children, and patients with pulmonary hypertension, reduce the number of particles to about 60,000 to 100,000.</p> <p>A well flushed indwelling line can be used. Do not administer in the distal port of a Swan-Ganz catheter or any indwelling line or port that contains a filter. (e.g. chemotherapy line)</p>