

PARATHYROID SCAN (Dual Phase Study)

Indications

- Detection and localization of primary and secondary parathyroid cancer.
- Identification of single adenomas, multiple adenomas, or glandular hyperplasia in patients with newly diagnosed hypercalcemia and elevated parathyroid hormone (PTH) levels.
- Localization of parathyroid tissue after surgery for persistent or recurrent hyperparathyroidism.
- (elevated serum calcium and PTH)

Conflicting Exams and Medications

- Patients on Calcium medications
- Patients on Thyroid medications and/or received recent iodine contrast studies
- Patient should be off thyroid medication for 5 days, contrast studies 7-10 days
- Patient too agitated or prone to movement or claustrophobia

Exam Time 2 hours

Patient Preparation None

Patient Positioning Supine

Radiopharmaceutical and Dose ^{99m}Tc-sestamibi Dose Range 16-30 m Ci/injection

Acquisition Protocol

- Collimator- Low energy, high resolution, or pinhole
- Counts/Time- Acquire image for 10 minutes, and if digital acquisition use a 128x128 or larger matrix, 1,000,000 or 300- 900 sec/image

Procedure

Routine views- **Anterior images of the neck at 5 min and 120 minutes after injection. A single anterior large- FOV image should also be obtained that includes mediastinum**