

Referrers Guide To Nuclear Medicine



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This guide contains information about the most commonly performed nuclear medicine scans

Bone Scan

All patients must present with a completed referral form

Evaluate bony pathologies:-

- Bone tumours
- Arthritis
- Osteomyelitis
- Metabolic bone diseases such as Paget's disease
- Sports injuries

- Stress fractures
- Suspected fracture (traumatic or insufficiency) with normal x-ray
- Avascular necrosis (AVN)

Time: 3 - 4 hours

Patient Preparation: No

Lung Scan (VQ Scan)

All patients must present with a completed referral form

- Suspected pulmonary embolism
- Pre-operative assessment for lung volume reduction surgery

Time: 1 hour

Patient Preparation: No

Thyroid Scan

All patients must present with a completed referral form

- Hyperthyroidism
- Graves' disease, thyroiditis, toxic adenomas
- Enlargement of thyroid gland (goitre)
- Thyroid nodules >5mm

Time: 1 hour

Patient Preparation:

- No Iodine contrast within 6 weeks prior to scan
- Cease Thyroxine or Eutroxsig 2-3 weeks prior to scan
- Cease other thyroid medication 3 days prior to scan

Gated Heart Pool Scan (GHPS)

All patients must present with a completed referral form

Assess cardiac size and function:-

- Coronary artery disease
- Cardiomyopathy
- Pre and post chemotherapy

Time: 1 hour

Patient Preparation: No

Myocardial Perfusion Study (MPS)

All patients must present with a completed referral form

- Diagnosis of coronary artery disease and risk stratification
- Efficacy post-revascularisation (surgical or percutaneous)
- Preoperative assessment of patients at risk of ischaemia/myocardial infarction
- Presence of unexplained arrhythmia
- Assess significance of known CAD not requiring immediate revascularisation
- Possible stenotic lesions post-revascularisation (surgical or percutaneous)
- Lesions detected on CT coronary angiography
- Patients unable to perform exercise stress test

Time: 4 - 5 hours

Patient Preparation:

- No caffeine or decaffeinated products for 24 hours, ie. Tea, coffee, chocolate, coke or energy drinks
- Light breakfast on morning of test
- Comfortable clothing should be worn for exercise
- Some medications may need to be ceased up to 48 hours prior to test. Please provide medication list when booking

Parathyroid Scan

All patients must present with a completed referral form

- Parathyroid adenoma or hyperparathyroidism
- Often when elevated blood calcium levels have been detected

Time: 2.5 - 4 hours

Patient Preparation: No

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Hepatobiliary Scan

All patients must present with a completed referral form

Assess biliary tract function:-

- Acute and chronic cholecystitis
- Common bile duct obstruction
- Gallbladder ejection fraction
- Post-cholecystectomy syndrome

Time: 2 hours

Patient Preparation:

- Required to eat a meal and then fast for 3-6 hours prior to test
- No opiates for 24 hours prior to test

Liver/Spleen Scan

All patients must present with a completed referral form

Assess size, shape, position and function of liver and spleen:-

- Focal disease (tumour, abscess, cyst, and trauma)

- Chronic liver disease
- Portal hypertension

Time: 1 hour

Patient Preparation: No

Renal DTPA Scan

All patients must present with a completed referral form

- Relative renal function
- Assess urinary drainage
- Investigation of renovascular hypertension

Time: 1 hour

Patient Preparation:

- Well hydrated, i.e. drink at least 1 litre of fluid prior to the study (may go to toilet)
- Cease fluid tablets 48 hours prior to the study

Renal DMSA Scan

All patients must present with a completed referral form

- Assess viable cortical tissue
- Measurement of relative renal function
- Detect presence of renal scars
- Evaluate active infection (pyelonephritis)

Time: 4 hours

Patient Preparation: No

Cerebral Perfusion Scan

All patients must present with a completed referral form

Detection and evaluation of cerebral disease:-

- Neuro-degenerative disorder, i.e. dementia
- Localisation of epileptic foci
- Brain tumours including suspected recurrence

- Stroke
- Suspected brain trauma and brain death
- Assess cerebral flow reserve

Time: 2 hours

Patient Preparation: No

Gallium Scan

All patients must present with a completed referral form

Assess sites of possible infection and inflammation:-

- Bone, joints and soft tissue
- Inflammatory bowel disease
- Ulcerative colitis and Crohn's disease

- Occult infection/PUO
- Undiagnosed lymphoma

Time: 1 hour

Patient Preparation:

- Injection and scan 48 hours post injection

Lymphoscintigraphy Scan

All patients must present with a completed referral form

Assess lymph drainage and identify sentinel lymph nodes:-

- Breast cancer
- Melanoma
- Lymphoedema in limbs

Time: 1 - 2 hours

Patient Preparation: No

Gastric Emptying Study

All patients must present with a completed referral form

Gastric emptying disorders:-

- Diagnosis and follow-up of gastroparesis
- Rapid gastric emptying/dumping syndrome
- Investigate epigastric discomfort and bloating
- Post-gastric surgery assessment

Time: 2 hours

Patient Preparation:

- Fast for 3 hours prior to test
- Required to eat a meal containing eggs as part of the study

Colon Transit Study

All patients must present with a completed referral form

- Investigate function of the colon
- Assess the severity and type of constipation

Time: One week

Patient Preparation:

- Bowel medication to be ceased 3 days prior to and during the test

Salivary Study

All patients must present with a completed referral form

Salivary gland dysfunction:-

- Sjögren's syndrome

Time: 30 mins

Patient Preparation:

- Fast for 4 hours

Oesophageal Transit Study

All patients must present with a completed referral form

- Achalasia
- Dysmotility
- Reflux/aspiration
- Scleroderma
- Oesophageal motility disorders

Time: 30 mins

Patient Preparation:

- Fast for 6 hours

Our Doctor

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