

PROCEDURE	PREPARATION	TEST LENGTH	INDICATIONS
Blood Volume (Plasma Volume)	-NO phlebotomy for 4 wks	-90 minutes	-Polycythemia rubra vera
Bone Marrow Imaging	-None	-1 hour	
Bone Mineral Densitometry	-No barium G.I. series for 2 weeks prior	-15 minutes	-Assessment of osteoporosis
Bone Scan available 'with or without SPECT	-None	-Inj: 15 minutes -Wait: 3 hrs -Scan: 1 hr	-Metastatic disease,osteomyelitis, bone dysplasia, metabolic bone disease, trauma, primary malignant and benign bone tumours, arthritis prosthetic joints, diabetic osteorthopathy, avascular necrosis, when assessment of metabolic function is indicated.
Brain Scan	-None	-Injection: 15 minutes -Wait: 1 1/2 hours -Scan: 30 minutes	-Evaluation of the blood brain barrier
Brain SPECT (HMPAO)	-None	-Injection & Immediate scan: 30 minutes -Wait: 1 1/2 hours -Delay Scan: 30 minutes	-Evaluation of cerebral perfusion,
Cardiac Wall Motion Study	-None	-1 1/2 to 2 hrs	-Evaluation and quantification of ventricular size, wall motion and ejection fraction
Cisternogram	-None	-Day 1: Injection via lumbar puncture Wait: 6 hours (at hospital) Scan : 30 minutes  -Day 2 & 3 Scan: 30 minutes	-Hydrocephalus - obstructive vs. non-obstructive, communicating vs. non-communicating
CSF Leak Study	-None	-3 hrs	-CSF Leak
Esophageal Motility Study	-NPO from midnight	-30 minutes	-Assessment of liquid/semisolid esophageal motility
First Pass Cardioangiography	-None	-45 minutes	-Right ventricular function, shunt detection, transit
G.I. Bleed	-None	-2-4 1/2 hours	-Localization of gastrointestinal bleeding sites
Gallium Scan	-None	-Injection -Wait: 48-96 hours -Scan: 2-2 1/2 hours	-Detection and localization of infections, inflammation, tumours, interstitial lung disease, monitor disease activity post therapy.
Gastric Emptying Scan	-NPO from midnight	-4 hours	-Assessment of mechanical function, delayed or rapid gastric emptying
Hepatobiliary (HIDA) Scan	-NPO 4 hrs	-1-4 hours	-Diagnosis of cholecystitis, evaluation of biliary tract obstruction, detection of bile leaks, cholestasis, biliary dyskinesia, post-cholecystectomy syndromes
Lacrimal Scan(Dacryoscintigraphy)	-None	-30 minutes	-Assessment of patency of lacrimal system
LeVein Shunt Scan	-None	-1-4 hours	-Evaluation of patency of peritovenous shunts
Liver & Spleen Scan with SPECT	-No barium G.I. Series 24 hours prior	-1 hour	-Evaluation of focal and diffuse liver or spleen disease and function, detection of lesions, detection of accessory splenic tissue
Liver Hemangioma	-None	-Immediate Scan: 1 hour -Wait: 3 1/2 hours -Delay Scan: 45 minutes	-Detection of liver hemangioma
Lung Scan	-None	-1 hour	-Diagnosis of pulmonary embolism, evaluation of ventilation and perfusion
Meckel's Scan	NPO 4 hrs	-1 1/4 hours	-Detection of Meckel's diverticulum containing functioning gastric mucosa

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MIBG Scan	<ul style="list-style-type: none"> <li>-Contact the nuclear medicine physician</li> <li>-Thyro-block tablet once per day for 5 days starting the day prior to the injection. If it is possible, it is advised that the patient be off the following medications prior to the test:               <ol style="list-style-type: none"> <li>1. Labetalol (beta adrenergic blockers/anti diabetic agents)</li> <li>2. Reserpine</li> <li>3. Tricyclic antidepressants</li> <li>4. Sympathomimetics</li> <li>5. Calcium-channel blockers</li> </ol> </li> </ul>	<ul style="list-style-type: none"> <li>-Day 1 Injection</li> <li>-Days 2, 3 &amp; 4 Scan (2 hours)</li> </ul>	<ul style="list-style-type: none"> <li>-Identification and localization of tumours of neuroectodermal tissues:               <ol style="list-style-type: none"> <li>1. Benign and malignant intraadrenal and extraadrenal pheochromocytomas</li> <li>2. Neuroblastomas</li> <li>3. Carcinoid tumours</li> <li>4. Medullary thyroid tumours</li> <li>5. Parangliomas</li> <li>6. Chemodectomas</li> </ol> </li> </ul>
Myocardial Perfusion Scan (Sestamibi or Tetrofosmin, Thallium for viability). Please specify if patient is for exercise, Persantine or Dobutamine.	<ul style="list-style-type: none"> <li>-NPO 4 hrs prior to both stress and rest studies. No caffeine products &gt; 24 hrs prior to the stress and rest study (coffee, tea, soda pop, chocolate, pain medications with caffeine-check labels). No decaffeinated products. Drugs with dipyridamole (Aggrenox), theophylline (Aminophylline), pentoxifylline (Trental), should be held 48 hours prior to the stress and rest study. Oral and topical nitrates (Isordl, NitroDur), calcium channel blockers (diltiazem, amlodipine, nifedipine) and beta blockers should be held for 48 hours prior to the stress study if the study is being done for the diagnosis on coronary artery disease. These agents should be given as usual if the study is being done to assess the efficacy of therapy in a patient with known coronary artery disease. This must be individualized based on objectives of the study, and with safety considerations of holding medications.</li> </ul>	<ul style="list-style-type: none"> <li>Rest Scan: 1hour Stress Scan 2 hours</li> </ul>	<ul style="list-style-type: none"> <li>-Detection of coronary artery disease, (classification of reversibility or irreversibility of ischemia), assess functional significance of known CAD, prognostication, viability</li> </ul>
Octreotide	<ul style="list-style-type: none"> <li>-Mild laxative containing Bisocodyl except when diarrhea is present</li> <li>-Drink lots of fluids the day before and the day of the test</li> </ul>	<ul style="list-style-type: none"> <li>-Day 1 Injection Wait: 4 hours Scan: 2 hours</li> <li>-Days 2 &amp; 3 Scan: 1-2 hours</li> </ul>	<ul style="list-style-type: none"> <li>-Assessment of neuroendocrine somatostatin receptive tumours</li> </ul>
Parathyroid Scan	<ul style="list-style-type: none"> <li>-None</li> </ul>	<ul style="list-style-type: none"> <li>-Injection &amp; Scan: 90 minutes</li> <li>-Wait: 3 hours</li> <li>-Scan: 90 minutes</li> </ul>	<ul style="list-style-type: none"> <li>-Assessment of parathyroid adenoma or ectopic tissue/hyperplasia</li> </ul>
PyTest	<ul style="list-style-type: none"> <li>-Nothing to eat or drink (includes no gum chewing &amp; no water too) 6 hrs</li> <li>-Off antibiotics for 4 weeks</li> <li>-Off bismuth drugs for 4 weeks</li> <li>-Off Sulcrafate drugs and Proton PumpInhibitors for 2 weeks before test</li> </ul>	<ul style="list-style-type: none"> <li>-10 minutes</li> </ul>	<ul style="list-style-type: none"> <li>-Assessment of the presence of Helicobacter pylori</li> </ul>

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Renal Scans	Renal DMSA	·All patients should be well hydrated. ·Please provide a list of medications. ·Patients scheduled for a Renal Captopril should discontinue ace inhibitors before the test.	·Total 5 hours ·Images taken at 4 hours post injection.	·Assessment of renal cortex/parenchymal scarring (performed typically on pediatric patients)	
	Renal Routine		MAG3 (and ERPF)	·Patients should bring a list of all medication ·Total 1 1/2 hours ·Images taken for 30-45 minutes and blood samples are drawn 45 minutes after injection.	·Assessment of blood flow / <b>tubular function</b> / obstruction
			DTPA (only if GFR required vs. ERPF)	·Patients should bring a list of all medications ·Total: 4 hours ·Images taken for 30- 45 minutes and blood samples are drawn at ·1 and 3 hours after injection.	·Assessment of blood flow/glomerular filtration/obstruction
	Renal Diuretic		·Patients should bring a list of all medications ·Total 1 1/2 hours Images are taken for 45- 60 minutes and blood samples are taken 45 minutes after injection.	·Assessment of urinary tract obstruction/hydronephrosis	
	Renal Captopril		·Patients should bring a list of all medications ·Total 2 - 2 1/2 hours Images are taken for 30 - 45 minutes and blood samples are taken 45 minutes after injection. ·ACE inhibitors/Angiotensin II receptor blockers should be stopped for 4-5 days prior if possible.	·Evaluation of renovascular hypertension and kidney function	
Salivary (Parotid) Scan	·None	·1 hour	·Assessment of salivary gland function, diffuse and focal disease		
Sentinel Node Imaging	·None	·2 hours	·Localization of sentinel nodes		

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Testicular Scan	·None	·1 hour	·Differentiation of epididymitis from torsion, evaluation of scrotal mass
Thyroid Metastases Survey	·Contact Nuc Med doctor	·variable	·Evaluation for functioning thyroid cancer, either recurrent in the thyroid bed or metastases
Thyroid Uptake and Scan	·Note that a thyroid scan may not usually be attainable if the patient is on thyroid replacement therapy.  ·Contact nuclear physician for further information.	·Day 1: 10 minutes  ·Day 2: 1 hour	·Evaluation of palpable nodules >1 cm, evaluation of patients with possible abnormal gland but no palpable nodules, evaluation of ectopic thyroid tissue, assessment of thyroiditis, hypothyroidism, hyperthyroidism, assessment of thyroid suppression
Venography	·None	·30 minutes	·Assessment of venous blood flow
Voiding Cystogram	·Requires catheterization done in nuclear medicine)	·1 hour	·Assessment of vesicoureteric reflux and residual bladder volume
White Blood Cell Imaging	·None	·Blood taken Wait: 4 hrs ·Blood injected Wait: 4 hrs ·Images taken Wait: 24 hours (in some cases) ·Images taken	·Localization of abscesses and infection, evaluation of inflammatory bowel disease