

ANATOMICAL GUIDE

For Ordering MRI & CT Studies

Brain

- MRI is the definitive imaging technique for evaluation of the brain in almost every circumstance.
- CT Scan can provide complete evaluation of some intracranial diseases, i.e., acute hemorrhage, hydrocephalus.

Head & Neck

	MRI Preferred	CT Preferred	Contrast Suggested
Erosion of the Skull Base	•	•	•
Lesions involving the brachial plexus	•		
Laryngeal tumors, nasopharyngeal tumors	•	•	•
Neck masses, parotid masses	•	•	•
Soft tissue tumors of the neck & Adenopathy	•	•	•
Tumors of the Larynx		•	•
Tumors of the skull base	•	•	•

Temporomandibular Joint (TMJ)

Evaluate Condylar Erosion/Evaluate Fracture of Condyle or Glenoid		•	
Meniscal degeneration or subluxation	•		
TMJ Pain	•		

Lumbar Spine

Best Detail for evaluation of degenerative Spondylosis i.e., osteophytic ridging, degenerative facet disease, facet hypertrophy		•	
Bone Tumors (Primary & Metastatic)	•		•
Degenerative disease limited to the Disk and Vertebral endplate, without bulging, or herniation	•		
Differentiation of post surgical scar from recurrent disk (Especially effective with GD-DTPA)	•		•
Disk Disease (Dehydration, bulging, herniation)	•		
Discitis	•		
Fracture (Osteoporotic)	•		•
Evaluation of Paravertebral soft tissue tumors & abscesses	•		•
Postoperative hematomas or infection	•		•
Nerve root compression or displacement	•		
Pseudomeningocele	•		•
Systematic diseases affecting the bone marrow	•		•
Spinal Canal Stenosis	•		
Spondylolisthesis/Spondylolysis	•	•	

Abdominal or Pelvic

Evaluation of Abdominal, flank or pelvic pain		•	•
Evaluation of Abdominal or pelvic masses or fluid collections		•	•
Evaluation of Primary or metastatic Malignancies	•	•	•
Evaluation of Abdominal or pelvic inflammatory processes		•	•
Assessment of abnormalities of abdominal or pelvic vascular structures		•	•
Evaluation of Abdominal or pelvic trauma		•	•
Evaluation of Kidney Stone		•	•
Focal Hepatic Lesions	•		•
Evaluation of Renal Artery	•		•
Evaluation of Diffuse Liver Disease	•		•
Evaluation of Mesenteric Ischemia	•	•	•



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Cervical & Thoacic Spine	MRI Preferred	CT Preferred	Contrast Suggested
Best Detail for evaluation of degenerative Sponylosis i.e., uncovertebral osteophytic ridging & Spurring, degenerative facet disease, hypertrophy		•	
Chiari Malformation	•		
Disk Disease (Dehydration, bulging, Herniation)	•		
Extrinsic lesions compressing the spinal cord	•		•
Intrinsic spinal cord lesions (syrinx, cord tumor, Hemorrhage, edema, MS plaques)	•		•
Vertebral fractures & Facet dislocations		•	
Neuroforaminal and spinal canal stenosis or spurring	•		
Soft tissue masses & abscesses	•		•
Spinal arteriovenous malformations	•		•
Spinal canal stenosis	•		
Vertebral body lesions (metastasis, hemangioma, discitis, Osteomyelitis, etc.)	•		•
Hip			
Avascular necrosis/detect fractures not seen in x-ray	•		
Define fractures & alignments		•	
Effusions (septic joint or trauma)	•		•
Iliopsoas Bursitis	•		
Knee			
Anterior & Posterior Cruciate Ligament Injury	•		
Fractures of the tibial plateau		•	
Fractures of the patella		•	
Question of the occult fracture	•	•	
Assess degree of internal meniscal degeneration (age-related trauma)	•		
Chondromalacia Patella	•		
Collateral ligament injury	•		
Identify loose bodies in the joint	•		
Joint effusions	•		
Meniscal Tears	•		
Osteochondral fractures	•		
Popliteal Masses	•		
Synovial cysts	•		
Infection of the knee and joint	•		
Musculoskeletal Region			
Bone Tumors with recent radiographs (x-rays)	•		•
Detailed evaluation of superficial & deep soft tissue masses	•		•
CT Angiography			
Artrial and venous aneurysms		•	•
Atherosclerotic Occlusive disease		•	•
Traumatic injuries to arteries and veins		•	•
Arterial Dissection		•	•
Pulmonary embolis adult		•	•
MR Angiography			
Renal Tumors	•		•
Adrenal Lesions	•		•
MRCP			
Pancreatic Tumors	•		•
Pancreatic Duct Obstruction	•		•
Chronic Pancreatitis	•		•
Bile Duct and gallbladder cancer	•		•

