Baylor College of Medicine

BAYLOR RADIOLOGY ASSOCIATES

Ordering Guidelines

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Body Imaging

BODY PART	CLINICAL CONCERN	RECOMMENDED ORDER
General Abdomen & Pelvis	• Abdominal pain • Abscess • Anemia • Lymphoma • Mass/Cancer (suspected) • Metastatic Disease • Weight loss	**CT ABDOMEN AND PELVIS WITH IV CONTRAST**
	• For indications above, but with impaired renal function (GFR<60)	**CT ABDOMEN AND PELVIS WITHOUT IV CONTRAST** *or consider* *MRI ABDOMEN WITHOUT IV CONTRAST AND* *MRI PELVIS WITHOUT IV CONTRAST*
	• Retroperitoneal hemorrhage	**CT ABDOMEN AND PELVIS WITHOUT IV CONTRAST**
Renal	• Known or suspected renal or ureteral calculus	**CT ABDOMEN AND PELVIS WITHOUT IV CONTRAST** *specify Renal Stone Protocol*
	• Characterize known renal mass	**CT ABDOMEN WITH AND WITHOUT IV CONTRAST** *specify Renal Mass Protocol* *Alternative:* MRI ABDOMEN WITH AND WITHOUT IV CONTRAST *specify Renal Mass Protocol*
	• Unknown source of hematuria • Known or suspected urinary tract mass/cancer	**CT ABDOMEN AND PELVIS WITH AND WITHOUT IV CONTRAST** *specify Hematuria Protocol*
Adrenal	• Characterize known adrenal mass	**CT ABDOMEN WITH AND WITHOUT IV CONTRAST** *specify Adrenal Mass Protocol* *Alternative:* MRI ABDOMEN WITH AND WITHOUT IV CONTRAST *specify Adrenal Mass Protocol*
Pancreas	• Pancreatitis	**CT ABDOMEN AND PELVIS WITH IV CONTRAST**
	• Pre-op staging of known pancreatic mass • Characterize known or suspected pancreas mass	**CT ABDOMEN WITH AND WITHOUT IV CONTRAST** *specify Pancreatic Mass Protocol* *Chest and/or Pelvis can be added* *Alternative:* MRI ABDOMEN WITH AND WITHOUT IV CONTRAST *specify Pancreatic Mass Protocol*

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Ordering Guidelines

Body Imaging

BODY PART	CLINICAL CONCERN	RECOMMENDED ORDER
Liver	• Cirrhosis • Abnormal LFTs	**US ABDOMEN COMPLETE**
	• Characterize known liver mass (detected on prior US or CT)	**CT ABDOMEN WITH AND WITHOUT IV CONTRAST** *specify Liver Mass Protocol* *Alternative:* MRI ABDOMEN WITH AND WITHOUT IV CONTRAST *specify Liver Mass Protocol*
	• Evaluate for liver metastasis in patients with known primary cancers that can have hypervascular metastasis, *i.e.* colon, pancreas, melanoma, breast, RCC, neuroendocrine, thyroid, GIST	**CT ABDOMEN WITH IV CONTRAST** *Chest and/or Pelvis can be added* *specify Dual Liver Protocol*
	• HCC screening	**MRI ABDOMEN WITH AND WITHOUT IV CONTRAST** *specify Liver Mass Protocol* *MRI preferred; Alternative:* CT ABDOMEN WITH AND WITHOUT IV CONTRAST *specify Liver Mass Protocol*
Bowel	• Appendicitis • Bowel obstruction/perforation • Constipation • Diarrhea • Diverticulitis/Colitis • GI Bleeding (rectal/upper/lower) • Hernia • Nausea/Vomiting	**CT ABDOMEN AND PELVIS WITH IV CONTRAST**
	• Chrohn's Disease (known or suspected) • Small bowel mass • Anemia with negative work-up • Malabsorption	**CT ABDOMEN AND PELVIS ENTEROGRAPHY WITH IV CONTRAST**
	• Appendicitis in pregnant patient	**MRI PELVIS WITHOUT IV CONTRAST** *specify Appendicitis Protocol*
	• Ischemic bowel/mesenteric ischemia (known or suspected)	**CTA ABDOMEN AND PELVIS WITH IV CONTRAST**

Ordering Guidelines

Body Imaging

BODY PART	CLINICAL CONCERN	RECOMMENDED ORDER
Biliary	• Right upper quadrant pain • Cholelithiasis	**US RIGHT UPPER QUADRANT**
	• Biliary or pancreatic duct pathology • Unknown cause of dilated ducts	**MRI ABDOMEN WITH AND WITHOUT IV CONTRAST WITH MRCP**
	• Evaluation of ductal system without concern for malignancy, *i.e.* evaluation for pancreatic divisum, stone or other duct anomalies	**MRI ABDOMEN WITHOUT IV CONTRAST WITH MRCP**
	• Gallbladder mass	**MRI ABDOMEN WITH AND WITHOUT IV CONTRAST**
Pelvis	Initial evaluation for: • Female pelvic pain • Abnormal vaginal bleeding • Suspected uterine or ovarian mass • Suspected tubo-ovarian abscess • Ovarian torsion*	**US TRANSABDOMINAL AND/OR TRANSVAGINAL PELVIC** ***for suspected ovarian torsion, ADD DUPLEX EVALUATION*** BOTH transabdominal and transvaginal approaches are the preferred exam. Transabdominal view provides a larger view of the pelvis to evaluate for possible mass that could be missed on more focused transvaginal view. Transvaginal view provides greater focused detail, including of the ovaries and endometrium.
	• Uterine or ovarian mass • Gynecologic cancer Diagnosis/Staging/Restaging • Pre/post fibroid embolization • Adenomyosis • Congenital gynecologic or urologic anomaly • Known pelvic mass	**MRI PELVIS WITH AND WITHOUT IV CONTRAST**
	• Pelvic pain (non-specified) • Abscess • Infection • Pelvic abscess/fistula	**CT PELVIS WITH IV CONTRAST** *Alternative:* MRI PELVIS WITH AND WITHOUT IV CONTRAST
	• Prostate cancer (known)	**MRI PELVIS WITHOUT IV CONTRAST**
Trauma	• Fall • Gun shot wound • Stab wound • Motor vehicle collision	**CT ABDOMEN AND PELVIS WITH IV CONTRAST**

Updated 07/2014

For impaired renal function (GFR<30), a non-contrast MRI is usually more helpful than a non-contrast CT
For iodinated CT contrast allergy, an MRI with IV contrast can usually be performed

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Ordering Guidelines

Chest Imaging

BODY PART	CLINICAL CONCERN	RECOMMENDED ORDER
Nodule	• Lung nodule initial evaluation and follow-up • Lung Cancer Screening (For patients between ages 55 to 80 years who have a 30 pack-year smoking history and currently smoke or have quit within the past 15 yrs)	**CT CHEST LOW DOSE NODULE WITHOUT IV CONTRAST**
General Chest	• Pneumonia • Dyspnea • Chest pain • Cough • Fever • Pneumothorax • Evaluation for thoracic metastases in patient with extrathoracic malignancy • Follow-up chest tube for pneumothorax	**CT CHEST WITHOUT IV CONTRAST**
	• Lymphadenopathy • Hilar mass • Lung cancer • Hemoptysis • Pleural effusion	**CT CHEST WITH IV CONTRAST**
	• Interstitial lung disease • Fibrosis • Pulmonary hypertension	**CT CHEST HIGH RESOLUTION WITHOUT IV CONTRAST** *OR* *if IV contrast needed for other reasons:* CT CHEST HIGH RESOLUTION WITH IV CONTRAST
Pulmonary Arteries	• Pulmonary Embolism • DVT • Elevated D-dimer • Pleuritic chest pain • AVM	**CTA CHEST PULMONARY EMBOLISM WITH IV CONTRAST**
Airway	• Tracheal stenosis • Tracheobronchomalacia	**CT NECK AND CHEST WITHOUT IV CONTRAST (AIRWAY PROTOCOL)**

Updated 07/2014

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Ordering Guidelines

Musculoskeletal Imaging

BODY PART	CLINICAL CONCERN	RECOMMENDED ORDER
Joint	• Known intra-articular fracture • Known peri-articular fracture ○ Surgical planning and/or classification	**CT *(SPECIFY JOINT) (RIGHT/LEFT)* WITHOUT IV CONTRAST** • *i.e. shoulder, elbow, wrist, hand, hip, knee, ankle, forefoot, midfoot or hindfoot* *Alternative:* MRI *(SPECIFY JOINT) (RIGHT/LEFT)* WITHOUT IV CONTRAST • *Consider MRI for patients with osteopenia, osteoporosis or suspected radiographically occult fracture*

	• Pain
	• Internal derangement
	  ○ Ligament tear
	  ○ Meniscal tear
	• Rotator cuff tear
	• Osteochondral lesion
		MRI *(SPECIFY JOINT) (RIGHT/LEFT)* WITHOUT IV CONTRAST
		• *i.e. shoulder, elbow, wrist, hand, finger, hip, knee, ankle, forefoot, midfoot or hindfoot*
		
		Alternative:
		CT *(SPECIFY JOINT) (RIGHT/LEFT)* ARTHROGRAM WITH IV CONTRAST
		• *i.e. shoulder, elbow, wrist, hip, knee, ankle*
		• *Specify MRI contraindication in history*

	• Inflammatory arthritis • Septic joint	**MRI *(SPECIFY JOINT) (RIGHT/LEFT)* WITH AND WITHOUT IV CONTRAST** • *i.e. shoulder, elbow, wrist, hand, finger, hip, knee, ankle, forefoot, midfoot or hindfoot* *Alternative:* CT *(SPECIFY JOINT) (RIGHT/LEFT)* WITH IV CONTRAST • *i.e. shoulder, elbow, wrist, hand, hip, knee, ankle, forefoot, midfoot or hindfoot* • *Specify MRI contraindication in history*
	• Characterization of a known labral tear • Post-menisectomy knee meniscus evaluation • Characterization of a known osteochondral lesion to further assess fragment stability (“OCD”)	**MRI *(SPECIFY JOINT) (RIGHT/LEFT)* ARTHROGRAM WITH IV CONTRAST** • *i.e. shoulder, elbow, wrist, hip, knee, ankle* *Alternative:* CT *(SPECIFY JOINT) (RIGHT/LEFT)* ARTHROGRAM WITH IV CONTRAST • *i.e. shoulder, elbow, wrist, hip, knee, ankle* • *Specify MRI contraindication in history*

Musculoskeletal Imaging

BODY PART	CLINICAL CONCERN	RECOMMENDED ORDER
Bone: Long Bone	• Characterization of a known fracture ○ Surgical planning and/or classification • Non-union • Malunion • Malalignment	**CT *(SPECIFY BONE) (RIGHT/LEFT)* WITHOUT IV CONTRAST** • *i.e. humerus, radius/ulna, femur or tibia/fibula* *Alternative:* MRI *(SPECIFY BONE) (RIGHT/LEFT)* WITHOUT IV CONTRAST • *Consider MRI for patient with osteopenia, osteoporosis or suspected radiographically occult fracture*
Pelvis	• Pain, Trauma • Fracture characterization ○ Surgical planning and/or classification • Non-union • Malunion • Malalignment	**CT PELVIS WITHOUT IV CONTRAST** • *Specify musculoskeletal pain, fracture or other MSK indication* *Alternative:* MRI PELVIS WITHOUT IV CONTRAST • *Specify musculoskeletal pain, fracture or other MSK indication* • *Consider MRI for patient with osteopenia, osteoporosis or suspected radiographically occult fracture*
Primary Bone Tumor	• Characterization • Marrow involvement • Soft tissue involvement	**MRI *(SPECIFY BONE) (RIGHT/LEFT)* WITH AND WITHOUT IV CONTRAST** • *i.e. humerus, radius/ulna, femur or tibia/fibula* • *i.e. shoulder, elbow, wrist, hand, hip, knee, ankle, foot* *Alternative:* CT *(SPECIFY BONE) (RIGHT/LEFT)* WITH AND WITHOUT IV CONTRAST • *i.e. humerus, radius/ulna, femur or tibia/fibula* • *i.e. shoulder, elbow, wrist, hand, hip, knee, ankle, foot* • *Specify MRI contraindication in history*
	• Cortical involvement • Pathologic fracture characterization	**CT *(SPECIFY BONE) (RIGHT/LEFT)* WITH IV CONTRAST** • *i.e. humerus, radius/ulna, femur or tibia/fibula* • *i.e. shoulder, elbow, wrist, hand, hip, knee, ankle, foot*
Bone Marrow	• Lytic Metastasis ○ *i.e.* Renal cell carcinoma • Multiple myeloma	**MRI BONE SURVEY WITHOUT IV CONTRAST** *specify Bone Marrow Survey*

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Ordering Guidelines

Musculoskeletal Imaging

BODY PART	CLINICAL CONCERN	RECOMMENDED ORDER
Bone Infection	• Osteomyelitis	**MRI *(SPECIFY BODY PART) (RIGHT/LEFT)* WITH AND WITHOUT IV CONTRAST** • *i.e. humerus, radius/ulna, femur or tibia/fibula* • *i.e. shoulder, elbow, wrist, hand, hip, knee, ankle, forefoot, midfoot, hindfoot* *Alternative:* MRI *(SPECIFY BODY PART) (RIGHT/LEFT)* WITHOUT IV CONTRAST • *i.e. humerus, radius/ulna, femur or tibia/fibula* • *i.e. shoulder, elbow, wrist, hand, hip, knee, ankle, forefoot, midfoot, hindfoot* • *Specify renal impairment*
Soft Tissue	• Abscess • Hematoma • Tumor • Metastasis	**MRI *(SPECIFY BODY PART) (RIGHT/LEFT)* WITH AND WITHOUT IV CONTRAST** • *i.e. arm, forearm, thigh, leg, pelvis* • *Pelvis – specify musculoskeletal indication* *Alternative:* CT *(SPECIFY BODY PART) (RIGHT/LEFT)* WITH IV CONTRAST • *i.e. arm, forearm, thigh, leg, pelvis* • *Pelvis – Specify musculoskeletal indication*

Updated 07/2014

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Ordering Guidelines

Cardiovascular Imaging

BODY PART	CLINICAL CONCERN	RECOMMENDED ORDER
Coronary Arteries	• Coronary artery disease evaluation	**CTA CORONARY ONLY (NO CAL SCORING) WITH IV CONTRAST**
	• Calcium score	**CT CORONARY CALCIUM SCORING ONLY WITHOUT IV CONTRAST**
	• Coronary artery disease evaluation and calcium score	**CTA CORONARY WITH CAL EVAL WITH AND WITHOUT IV CONTRAST**
Thoracic Aorta	• Rule out or follow-up thoracic aorta aneurysm • Atherosclerosis • Penetrating ulcer • Abnormality noted on CXR or Ultrasound • Follow-up surgical graft repair of thoracic aorta (NO STENT)	**CTA CHEST WITH IV CONTRAST**
	• Vasculitis, Aortitis	**CTA CHEST WITH IV CONTRAST** *(specify: arterial AND delayed phases)*
	• Thoracic aorta dissection (suspected)	**CTA CHEST WITH AND WITHOUT IV CONTRAST**
Abdominal Aorta	• Rule out or follow-up abdominal aorta aneurysm • Atherosclerosis • Penetrating ulcer • Abnormality noted on CXR or Ultrasound	**CTA ABDOMEN AND PELVIS WITH IV CONTRAST**
	• Vasculitis, Aortitis	**CTA ABDOMEN AND PELVIS WITH IV CONTRAST** *(arterial and delayed phases)*
Thoraco-abdominal Aorta	• Thoraco-abdominal aorta dissection (suspected)	**CTA CHEST, ABDOMEN AND PELVIS WITH AND WITHOUT IV CONTRAST**
	• Rule out or follow-up thoraco-abdominal aorta aneurysm	**CTA CHEST, ABDOMEN AND PELVIS WITH IV CONTRAST** *Alternative:* MRA CHEST WITH IV CONTRAST AND MRA ABDOMEN WITH IV CONTRAST
	• Marfan's Syndrome	**MRA CHEST WITH IV CONTRAST AND MRA ABDOMEN WITH IV CONTRAST**

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Ordering Guidelines

Cardiovascular Imaging

BODY PART	CLINICAL CONCERN	RECOMMENDED ORDER
Stent Graft	• Pre-stent graft planning (Endograft, EVAR)	**CTA CHEST, ABDOMEN AND PELVIS WITH AND WITHOUT IV CONTRAST** *specify Pre-Stent Graft Protocol* *(choose chest, abdomen and/or pelvis)*
	• Post-stent graft follow-up (Endograft, EVAR)	**CTA CHEST, ABDOMEN AND PELVIS WITH AND WITHOUT IV CONTRAST** *specify Post-Stent Graft Protocol* *(choose chest, abdomen and/or pelvis)*
Pulmonary Vein	• Pumonary veins evaluation pre or post ablation	**CT PUMONARY VEINS WITH IV CONTRAST**
Pericardium	• Pericardial calcifications • Pre-operative planning	**CT CARDIAC PERICARDIAL CONSTRICTION WITH IV CONTRAST** *(can be done with or without contrast)*
Peripheral Vasculature	• Claudication/pain • Peripheral vascular disease • Cold foot • Ischemia/gangrene	**CTA LOWER EXTREMITY (LEFT AND/OR RIGHT) WITH IV CONTRAST** *(can include CTA ABD AORTA AND ILIOFEMORAL RUNOFF)*
Renal Artery	• Renal artery stenosis	**CTA ABDOMEN WITH AND WITHOUT IV CONTRAST** *specify Renal Artery Stenosis Protocol* *Alternative:* *MRA ABDOMEN WITH IV CONTRAST*
Tram Flap	• Tram flap reconstruction	**CTA ABDOMEN PELVIS WITH IV CONTRAST** *Specify Tram Flap Protocol*
ALTPF and Fibular Flaps	• Free anterolateral thigh and fibular flaps reconstruction	**CTA ABDOMEN PELVIS WITH IV CONTRAST** **CTA LOWER EXTREMITY (LEFT AND RIGHT)** *Specify ALTPF and Fibula Flap*
Thoracic Outlet	• Thoracic outlet syndrome	**CTA CHEST WITH IV CONTRAST** *specify TOS Protocol* *Alternative:* *MRA CHEST WITH IV CONTRAST* *specify TOS Protocol*

Updated 07/2014

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Ordering Guidelines

Neuroradiology Imaging

BODY PART	CLINICAL CONCERN	RECOMMENDED ORDER
Brain: Acute Symptoms	• Altered mental status • Trauma • Acute or chronic hydrocephalus	**CT HEAD WITHOUT IV CONTRAST**
	• Acute headache	**CT HEAD WITHOUT IV CONTRAST** *(if focal deficits are present, MRI BRAIN WITH AND WITHOUT IV may be needed for further evaluation)*
	• Acute stroke (<6 hr onset/TPA candidate) • Acute headache (rule out aneurysm)	**CT HEAD WITHOUT IV CONTRAST** **CTA NECK WITH IV CONTRAST** **CTA HEAD WITH IV CONTRAST**
	• Acute stroke (>6 hrs onset/not TPA candidate)	**CT HEAD WITHOUT IV CONTRAST** *(to rule out hemorrhage)*
	• Acute stroke (Negative head CT)	**MRI BRAIN WITHOUT IV CONTRAST**
	• Acute stroke (Need to evaluate vessels)	**MRA NECK WITH IV CONTRST AND** **MRA HEAD WITH IV CONTRAST** **MRI BRAIN WITHOUT IV CONTRAST** *If MRI contraindicated:* *CTA HEAD AND NECK WITH IV CONTRAST*
	• Acute dissection/trauma, rule out arterial injury	**CT HEAD WITHOUT IV CONTRAST** **CTA NECK WITH IV CONTRAST** **CTA HEAD WITH IV CONTRAST**
	• Acute or chronic dissection (CTA negative)	**MRA NECK WITHOUT IV CONTRAST** *Specify Dissection protocol with axial T1 pre with fat sat* **MRI BRAIN WITHOUT IV CONTRAST**
Brain General	• CNS Infection • Brain tumor • Metastasis • Vasculitis • Seizure • Chronic headaches	**MRI BRAIN WITH AND WITHOUT IV CONTRAST** *If MRI contraindicated:* CT HEAD WITH AND WITHOUT IV CONTRAST
	• Dural sinus thrombosis • Pseudotumor cerebri	**MRI BRAIN WITH AND WITHOUT IV CONTRAST** **MRV HEAD WITH AND WITHOUT IV CONTRAST** *If MRI contraindicated:* CT BRAIN WITHOUT IV AND INTRACRANIAL VENOGRAM WITH IV CONTRAST
	• Dementia • Memory loss	**MRI BRAIN WITHOUT IV CONTRAST** *specify Dementia Protocol*
	• Trigeminal neuralgia (facial pain)	**MRI BRAIN WITH AND WITHOUT IV CONTRAST** *specify Trigeminal Neuralgia Protocol*

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Ordering Guidelines

Neuroradiology Imaging

BODY PART	CLINICAL CONCERN	RECOMMENDED ORDER
Multiple Sclerosis	• Rule out Multiple Sclerosis	**MRI BRAIN WITH AND WITHOUT IV CONTRAST** *specify MS Protocol*
	• Multiple Sclerosis with optic symptoms	**MRI BRAIN WITH AND WITHOUT IV CONTRAST** *specify MS Protocol* **MRI ORBITS ONLY WITH AND WITHOUT IV CONTRAST**
	• Multiple Sclerosis with Spine symptoms	**MRI BRAIN WITH AND WITHOUT IV CONTRAST** *specify MS Protocol* **MRI CERVICAL SPINE WITH IV CONTRAST** **MRI THORACIC SPINE WITH IV CONTRAST**
Internal Auditory Canal	• Sensorineural hearing loss • Vertigo • IAC or CPA pathology • Facial weakness (Bell's Palsy) • Hemi-facial spasm	**MRI BRAIN WITH AND WITHOUT IV CONTRAST** *specify IAC protocol*
Pituitary	• Micro or macro pituitary adenoma • Pituitary insufficiency • Diabetes insipidus • Precocious puberty	**MRI PITUITARY WITH AND WITHOUT IV CONTRAST**
Orbits	• Trauma • Fracture • Hemorrhage • Retinal detachment Foreign body	**CT ORBITS WITHOUT IV CONTRAST**
	• Thyroid orbitopathy (Grave's)	**CT ORBITS WITH IV CONTRAST** *If concern for compression of optic nerves in apex:* **MRI ORBITS ONLY WITHOUT IV CONTRAST**
	• Infection • Vascular (CC fistula/Varix)	**CT ORBITS WITH IV CONTRAST** *if concern for intracranial extension* **MRI ORBITS ONLY WITH IV CONTRAST**
	• Sarcoidosis • Pseudotumor • Intraconal/Extraconal Masses • Ocular or Melanoma Metastases	**MRI ORBITS ONLY WITH AND WITHOUT IV CONTRAST**
	• Optic Nerve/Neuritis	**MRI ORBITS ONLY WITH AND WITHOUT IV CONTRAST** *if Multiple Sclerosis is suspected, consider adding:* MRI BRAIN WITH AND WITHOUT IV CONTRAST

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Ordering Guidelines

Neuroradiology Imaging

BODY PART	CLINICAL CONCERN	RECOMMENDED ORDER
Maxillofacial	• Facial trauma • Foreign Bodies	**CT MAXILLOFACIAL WITHOUT IV CONTRAST**
	• Sinusitis	**CT SINUS WITHOUT IV CONTRAST**
	• Facial Infection • Mass/neoplasm	**CT MAXILLOFACIAL WITH IV CONTRAST** *if intracranial extension of tumor or infection is suspected or need to evaluate soft tissues or sinuses:* MRI FACE ONLY WITH IV CONTRAST
Parotid	• Parotid mass	**CT NECK WITH IV CONTRAST** *Alternative:* MRI FACE ONLY WITH AND WITHOUT IV CONTRAST
Neck	• Infection • Palpable mass • Lymphadenopathy • Cranial nerve palsies 1, 3-12 • Sialoadenitis • Thyroid pre-op goiter • Pre-op known thyroid cancer	**CT NECK WITH IV CONTRAST** *For Nasopharynx and/or to evaluate for perineural spread:* MRI SKULL BASE WITH AND WITHOUT IV CONTRAST Note: The use of iodinated contrast will result in a delay in the ability to use radioactive iodine for diagnosis or treatment of thyroid cancer, but is helpful for evaluation of nodal metastasis.
	• Head and Neck cancer	**CT NECK WITH IV CONTRAST** *For Nasopharynx only:* MRI SKULL BASE WITH AND WITHOUT IV CONTRAST Note: MRI skull base may be complementary to evaluate skull base, intracranial extension and/or perineural spread
	• Laryngeal trauma • Foreign Bodies • Known thyroid cancer (with planned ablation) • Tracheal stenosis	**CT NECK AND CHEST (AIRWAY PROTOCOL)**
	• Parathyroid Adenoma (hypercalcemia)	**CT NECK WITH AND WITHOUT IV CONTRAST PARATHYROID GLANDS**

Ordering Guidelines

Neuroradiology Imaging

BODY PART	CLINICAL CONCERN	RECOMMENDED ORDER
Temporal Bone	• Conductive hearing loss • Subjective tinnitus • Cholesteatoma • Fracture • Post-operative Evaluation	**CT TEMPORAL BONES WITHOUT IV CONTRAST**
	• Mastoiditis • Otogentic infection	**CT TEMPORAL BONES WITH IV CONTRAST** Note: MRI BRAIN WITH AND WITHOUT IV CONTRAST is complementary but not essential if suspect intracranial extension or sinus thrombosis
Spine	• Trauma	**CT *(*)* SPINE WITHOUT IV CONTRAST** **specify cervical, thoracic and/or lumbar* Note: MRI *(*)* SPINE WITHOUT IV CONTRAST is complementary if there are myelopathic symptoms
	• Pain • Numbness • Myelopathy • Radiculopathy	**MRI *(*)* SPINE WITHOUT IV CONTRAST** **specify cervical, thoracic and/or lumbar* Note: CT *(*)* SPINE WITHOUT IV CONTRAST is complementary when pathology is primarily osseous
	• Infection • Mass/Neoplasm • Multiple Sclerosis, spine only	**MRI *(*)* SPINE WITH AND WITHOUT IV CONTRAST** **specify cervical, thoracic and/or lumbar*
	• Spine survey for metastasis	**MRI CERVICAL, THORACIC AND LUMBAR SPINE WITH AND WITHOUT IV CONTRAST**
	• Post-operative spine	**MRI (*) SPINE WITH AND WITHOUT IV CONTRAST** *To evaluate recurrent or residual disc herniation vs. scar* **specify cervical, thoracic and/or lumbar* **CT (*) SPINE WITHOUT IV CONTRAST** *To evaluate hardware and fusion/may be complimentary to MRI* **specify cervical, thoracic and/or lumbar*
Brachial Plexus	• Pain	**MRI BRACHIAL (RIGHT/LEFT) PLEXUS WITHOUT IV CONTRAST**
	• Infection • Mass/Neoplasm	**MRI BRACHIAL (RIGHT/LEFT) PLEXUS WITH IV CONTRAST**

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Neuroradiology Imaging

Skull Base & Cavernous Sinus	• Diplopia • Painless or Painful 3rd, 4th, 5th, or 6th cranial nerve palsies • Tumors • Infection • Intracranial extension of sinus or orbital pathology	**MRI SKULL BASE WITH AND WITHOUT IV CONTRAST** *If need to evaluate bones or MR contraindication:* CT MAXILLOFACIAL WITH IV CONTRAST
Sacrum	• Pain • Mass/Neoplasm • Infection	**MRI SACRUM WITH AND WITHOUT IV CONTRAST**

Updated 07/2014

NOTE: For evaluation of spinal cord pathology, masses or infection – MRI with and without IV contrast is the optimal exam.