

# Referring Physician Ordering Guide: What to Order When

The radiologists at Tahoe Carson Radiology have developed the following scanning guidelines for our referring providers to assist you in selecting the most effective imaging modality for your patient's clinical presentation. This booklet is intended only as a guideline. To schedule a study call 775-621-5800 or to consult with a radiologist, please call 775-445-7138.

#### **NEURORADIOLOGY ORDERING GUIDELINES**

#### **BRAIN**

Indication	Preferred Study
Headache	CT Head without contrast for acute ("worst headache of life"). MRI without contrast
Trauma	CT Head without contrast (acute). Concussion/TBI: MRI with and without contrast
Suspected intracranial haemorrhage	CT Head without contrast
Acute neurological changes	CT Head without contrast (only if concern for ICH) Subsequent study: MRI with and without contrast
Acute stroke/TIA	CT Head without contrast (if candidate for thrombolysis) Subsequent studies: MRI Brain with/without contrast, MRA Brain and MRA Neck with and without contrast as indicated
Hydrocephalus	If concern for shunt malfunction CT Head without contrast. Alternative for more acute processes: MRI Brain with and without contrast
Seizure	First (New Onset) seizures: MRI Brain with and without contrast (CT Head if patient unstable/concern for ICH)
Temporal lobe epilepsy	MRI Brain with and without contrast, ObliqueT2 coronal images through the temporal lobes
Dementia/Memory loss	MRI Brain with and without contrast. PET can also be considered for Alzheimer's diagnosis
Normal pressure hydrocephalus, aqueductal stenosis, Chiari I malformation	Consider Sagittal CSF flow study: at cerebral aqueduct for NPH, at foramen magnum for Chiari 1
Mass	MRI Brain with and without contrast. MRI contraindicated: CT Head with and without contrast
Aneurysm or AVM	"Screening" MRA Head (non-contrast). CTA head with contrast for definition of small aneurysms, patients who can't get MRA.
Infection	MRI Brain with and without contrast. MRI contraindicated: CT Head with and without contrast
CSF leak	CT Cisternogram (requires intrathecal contrast injection (i.e. identical to Myelogram)). Nuclear medicine CSF leak study, CT Maxillofacial without contrast
Cranial neuropathy	MRI Brain with and without contrast (Cranial nerve protocol)
Pituitary dysfunction	MRI Brain with and without contrast (Pituitary protocol)



# FACE

Indication	Preferred Study
Trauma	CT Maxillofacial without contrast
Sinus disease	CT Sinus without contrast. If suspected orbital/intracranial involvement: MRI Brain and Orbits with and without contrast
Infection	CT Maxillofacial with contrast. Suspected Orbit or Brain extension: MRI Brain and Orbits with and without contrast
Hearing loss, vertigo	Developmental: CT Temporal bones without contrast. Sensorineural: MRI IAC with and without contrast
TMJ pain	MRI Temporomandibular joints without contrast
Possible metal in orbits and patient needs an MRI	Orbits x-ray

# **NECK/SOFT TISSUE**

Indication	Preferred Study
Carotid or vertebral artery stenosis	CTA Neck with contrast. MRA Neck with and without contrast. Carotid Doppler ultrasound
Mass	CT Neck with contrast. 'Thyroid nodule: Thyroid ultrasound. Thyroid cancer: MRI Soft Tissue Neck with and without contrast
Infection	CT Neck with contrast
Neurologic deficit in brachial plexus	MRI Branchial Plexus with and without contrast
Carotid or vertebral artery Dissection	MRA Neck with and without contrast (Dissection protocol). CTA Neck with contrast, include with MRA Neck (non-contrast T1 axial with and without fat saturation)

#### THORACIC SPINE

Indication	Preferred Study
Trauma	CT Thoracic Spine without contrast. Acute neurologic deficit and CT negative: MRI without contrast
Pain, degenerative changes, radiculopathy	MRI Thoracic Spine without contrast. If concern for scaring or early post surgery MRI with and without contrast. MRI contraindicated: CT without contrast or CT Myelogram. For pain localization in setting of prior surgery or multiple degenerative findings: SPECT fusion with CT or MRI
Mass	MRI with and without contrast
Infection	MRI with and without contrast. MRI contraindicated: CT with contrast

# **LUMBAR SPINE**

Indication	Preferred Study
Trauma	CT Lumbar spine without contrast. Acute neurologic deficit and CT negative: MRI without contrast
Pain, degenerative changes, radiculopathy, sciatica	MRI Lumbar spine without contrast. MRI with and without contrast. MRI contraindicated: CT without contrast or CT myelogram. For pain localization in setting of prior surgery or multiple degenerative findings: SPECT fusion with MRI or CT
Pars stress injury	MRI Lumbar Spine pars protocol. Adolescent MRI without contrast. Adult CT without contrast
Mass	MRI with and without contrast
Infection	MRI with and without contrast. MRI contraindicated: CT with contrast
Lumbosacral plexus abnormality	MRI Lumbosacral plexus (Pelvis) without contrast



# **MUSCULOSKELETAL ORDERING GUIDELINES**

## SHOULDER

Indication	Preferred Study
Trauma, surgical hardware	X-ray first. CT for pre-operative planning of fractures. CT for occult fracture in younger patients. MRI without contrast for occult fracture in older patients. CT arthrography with and without contrast for arthroplasty complications
Masses	X-ray first for bony lesions. Ultrasound for suspected lipoma. Otherwise MRI with and without contrast
Infection	MRI Shoulder with and without contrast
General pain	MRI Shoulder without contrast. US for patients who cannot have an MRI
Suspected rotator cuff tear	MRI without contrast; some shoulder surgeons prefer MRI Shoulder Arthrogram. CT Arthrogram for patients who cannot have an MRI
Proximal biceps injury	MRI Shoulder without contrast. US for patients who cannot have an MRI
Suspected labral tear	MRI Shoulder Arthrogram

#### **HUMERUS**

Indication	Preferred Study
Trauma, surgical hardware	X-ray first. CT for pre-operative planning of fractures. CT for occult fracture in younger patients. MRI for occult fracture in older patients
Masses	X-ray first for bony lesions. Ultrasound for suspected lipoma. Otherwise MRI humerus with and without contrast
Infection	MRI Humerus with and without contrast
General pain, muscle injury	MRI Humerus without contrast
Post-traumatic radial nerve injury	MRI Humerus without contrast

#### **ELBOW**

Indication	Preferred Study
Trauma, surgical hardware	X-ray first. CT for pre-operative planning of fractures. CT for occult fracture in younger patients. CT for arthroplasty complications. MRI for occult fracture in older patients
Masses	X-ray first for bony lesions. Ultrasound for suspected lipoma. Otherwise MRI with and without contrast
Infection	MRI with and without contrast
General pain, epicondylitis	MRI without contrast
Distal biceps injury	MRI Elbow without contrast
Ligament injury, especially in throwing athletes	MRI Elbow Arthrogram
Osteochondral lesion	MRI Elbow without contrast
Nerve injury. entrapment syndrome	MRI Elbow without contrast



## **FOREARM**

Indication	Preferred Study
Trauma, surgical hardware	X-ray first. CT for pre-operative planning of fractures. CT for occult fracture in younger patients. MRI without contrast for occult fracture in older patients
Masses	X-ray first for bony lesions. Ultrasound for suspected lipoma. Otherwise MRI with and without contrast
Infection	MRI with and without contrast
General pain, muscle injury	MRI without contrast
Nerve injury/entrapment	MRI without contrast

## WRIST

Indication	Preferred Study
Trauma, surgical hardware	X-ray first. CT for pre-operative planning of fractures. MRI without contrast for occult fracture (such as scaphoid and distal radius)
Masses	X-ray first for bony lesions. Otherwise MRI with and without contrast
Infection	MRI with and without contrast
General pain, tendinopathy	MRI without contrast
Ligament injury	MRI Wrist Arthrogram
TFCC injury	MRI Wrist Arthrogram

# HAND

Indication	Preferred Study
Trauma, surgical hardware	X-ray first. CT for pre-operative planning of fractures. MRI without contrast for occult fracture
Masses	X-ray first for bony lesions. Otherwise MRI with and without contrast
Infection	MRI with and without contrast
General pain, muscle injury, rheumatologic diseases	MRI without contrast

# FINGER (AREA FROM MCP JOINT TO DISTAL TIP)

Indication	Preferred Study
Trauma, surgical hardware	X-ray first, CT for pre-operative planning of fractures, MRI without contrast for occult fracture
Masses	X-ray first for bony lesions. Otherwise MRI with and without contrast.
Infection	MRI with and without contrast
General pain, ligament injury	MRI without contrast
Tendon injury	MRI without contrast first. US for dynamic abnormality



# SACRUM

Indication	Preferred Study
Trauma, surgical hardware	X-ray first. CT for pre-operative planning of fractures. MRI without contrast for occult fracture
Masses	X-ray first for bony lesions. Otherwise MRI with and without contrast
Infection, decubitus ulcer	MRI Pelvis with and without contrast
General pain, sacroiliitis	MRI Pelvis without contrast
Suspected sacral plexus nerve impingement	MRI Pelvis without contrast
Piriformis syndrome	MRI Pelvis without contrast

## **BONY PELVIS**

Indication	Preferred Study
Trauma, surgical hardware	X-ray first. CT for pre-operative planning of fractures. CT for occult fracture in younger patients. MRI without contrast for occult fracture in older patients
Masses	X-ray first for bony lesions. US for suspected lipoma. Otherwise MRI with and without contrast
Infection, decubitus ulcer	MRI Pelvis with and without contrast
General pain, muscle injury	MRI Pelvis without contrast
"Groin pull," sports hernia	MRI Pelvis without contrast

## HIP

Indication	Preferred Study
Trauma, surgical hardware	X-ray first, CT for pre-operative planning of fractures. CT for arthroplasty complications. MRI without contrast for occult fracture
Masses	X-ray first bony lesions. US for suspected lipoma. Otherwise MRI with and without contrast
Infection, decubitus ulcer	MRI Hip with and without contrast
General pain, muscle injury	MRI Hip without contrast
Arthritis	MRI Hip without contrast
Osteonecrosis	MRI Hip without contrast
Stress injury	MRI Hip without contrast
Labral tear, suspected femoral-acetabular impingement syndrome	MRI Hip Arthrogram
Assess iliopsoas tendon in snapping hip syndrome	Ultrasound

# THIGH/FEMUR

Indication	Preferred Study
Trauma, surgical hardware	X-ray first. CT for pre-operative planning of fractures. CT for hardware complications. MRI without contrast for occult fracture
Masses	X-ray first for bony lesions. US for suspected lipoma. Otherwise MRI with and without contrast
Infection	MRI Femur with and without contrast
General pain, muscle injury, hamstring injury	MRI Femur without contrast
Nerve injury	MRI Femur without contrast



# **KNEE**

Indication	Preferred Study
Trauma, surgical hardware	X-ray first. CT for pre-operative planning of fractures. CT far arthroplasty complications. MRI for occult fracture
Masses	X-ray first for bony lesions. US for suspected lipoma or Baker's cyst. Otherwise MRI with and without contrast
Infection	MRI Knee with and without contrast
General pain, internal derangement (i.e. ligament or meniscus tear)	MRI Knee without contrast. CT Arthrogram in patients who cannot have an MRI
Meniscus tear in setting of prior partial meniscectomy	MRI Knee Arthrogram
Arthritis	MRI Knee without contrast
Osteonecrosis	MRI Knee without contrast
Cartilage and Osteochondral Lesions	MRI Knee without contrast and with T2 mapping

#### CALF/TIBIA

Indication	Preferred Study
Trauma, surgical hardware	X-ray first. CT for pre-operative planning of fractures. MRI without contrast for occult fracture
Masses	X-ray first for bony lesions. US for suspected lipoma. Otherwise MRI with and without contrast
Infection	MRI Tib Fib with and without contrast
General pain, muscle injury	MRI Tib Fib without contrast
Stress injury, "shin splints"	MRI Tib Fib without contrast

## ANKLE/HINDFOOT

Indication	Preferred Study
Trauma, surgical hardware	X-ray first. CT for pre-operative planning of fractures. CT for arthroplasty complications. MRI without contrast for occult fracture
Masses	X-ray first for bony lesions. Otherwise MRI with and without contrast
Infection, osteomyelitis, ulcer	MRI Ankle with and without contrast
General pain, ligamentous injury	MRI Ankle without contrast
Tendinopathy, Achilles injury	MRI Ankle without contrast. US in patients who cannot have an MRI
Plantar fasciitis	MRI Ankle without contrast. US in patients who cannot have an MRI
Tarsal coalition	CT or MRI Ankle without contrast
Os Naviculare syndrome	MRI Ankle without contrast
Cartilage and Osteochondral Lesions	MRI Ankle without contrast and with T2 mapping
Tarsal tunnel syndrome	MRI Ankle without contrast
Chronic instability, lateral impingement syndrome, adhesive capsulitis	MRI Ankle Arthrogram



# MIDFOOT (Indicate Midfoot)

Indication	Preferred Study
Trauma, surgical hardware	X-ray first. CT for pre-operative planning of fractures. MRI without contrast for occult fracture
Masses	X-ray first for bony lesions. Otherwise MRI with and without contrast
Infection, osteomyelitis, ulcer	MRI Foot with and without contrast
General pain	MRI Foot without contrast. SPECT bone scan fusion study with either CT or MRI if injection or joint surgery planned.
Metatarsal stress fracture	MRI Foot without contrast
Lisfranc ligament injury	MRI Foot without contrast

#### FOREFOOT/TOES (REGION FROM MTP JOINT TO DISTAL TIP) (Indicate Forefoot)

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Indication	Preferred Study
Trauma, surgical hardware	X-ray first. CT for pre-operative planning of fractures
Masses	X-ray first for bony lesions. Otherwise MRI with and without contrast
Infection, osteomyelitis, ulcer	MRI Foot with and without contrast
General pain	MRI Foot without contrast
Plantar plate injury, turf toe	MRI Foot without contrast
Morton's neuroma	MRI Foot with and without contrast

## OTHER

/ THER	
Indication	Preferred Study
Non-acute traumatic pain in scapula, clavicle, sternoclavicular joints, sternum, ribs, abdominal muscles, and back muscles	MRI Chest without contrast (**In notes indicate which body part of interest)
Skeletal metastases	Bone scan for overview. MR with and without contrast for specific lesions
DVT	Ultrasound
Foreign body localization	Ultrasound
Superficial abscess detection and drainage	Ultrasound
Pain injection or aspiration	Depending on site, these are performed under x-ray or Ultrasound



# **THORACIC IMAGING GUIDELINES**

Indication	Preferred Study
Chronic Dyspnea	High Resolution Chest CT (HRCT) without contrast
Hemoptysis	CT Chest with contrast. If contrast contraindicated then CT Chest without contrast may be ordered.
Lung cancer-Non-invasive staging	CT Chest with or without contrast if renal failure or PET/CT
Screening for pulmonary metastases	CT chest without or with for initial evaluation or surveillance. Chest X-ray if performed as a baseline
Pulmonary nodule > 1 cm	Per Fleischner Criteria
Pulmonary nodule < 1 cm	Per Fleischner Criteria
Blunt chest trauma, suspect aortic injury	CTA Chest with and without
Acute chest pain suspect aortic dissection	Chest x-ray most appropriate first imaging test only if readily available and does not delay CT or MRA. Cannot definitively exclude dissection. CTA Chest and Abdomen with and without contrast, is the definitive test to rule out aortic dissection. Alternative: MRA Chest and Abdomen if CT contrast is contraindicated.
Suspected Pulmonary Embolism	CTA Chest with contrast is current standard of care to exclude pulmonary embolism. Alternative: When CT contrast contraindicated, consider ventilation/perfusion scan and lower extremity venous Doppler ultrasound to rule out deep venous thrombosis.
Acute respiratory illness immunocompetent patient	Chest X-ray. CT Chest without contrast when x-ray findings inconclusive.



# **GASTROINTESTINAL IMAGING GUIDELINES**

Indication	Preferred Study
Acute abdominal pain, fever, R/O Abscess	CT Abdomen and Pelvis with contrast. Alternative: MRI offers imaging without non-ionizing radiation and can provide additional clinically useful information regarding ovarian pathology, PID, ectopic pregnancy and ovarian torsion.
Pregnant patient with acute abdominal pain	Ultrasound, if indeterminate then MRI Abdomen and Pelvis without contrast. After 1 <sup>st</sup> trimester Appy protocol
Pancreatitis	Ultrasound to exclude gallstones. CT Multiphase Abdomen with and without contrast
Blunt trauma stable patient	CT Chest/Abdomen/Pelvis with contrast
Blunt trauma unstable patient	CT Abdomen and pelvis with contrast
Colorectal cancer screening	CT colonography every 5 years after negative screen
Crohn's disease - adult	CT Enterography. Alternative: MRI Enterography has shown similar sensitivity and specificity to CT and avoids radiation risks.
Crohn's disease - child	MRI or CT Enterography initial presentation. MRI Enterography for known disease to avoid repetitive CT radiation exposure
Jaundice- painless	CT Pancreas protocol contrast
Jaundice with pain/fever	Ultrasound Abdomen
Left lower quadrant pain	CT Abdomen and Pelvis with contrast
Liver lesion initially identified on US or CT	MRI Liver with and without contrast
Palpable abdominal mass	CT Abdomen and Pelvis with contrast most definitive. Alternative: MRI with and without contrast or ultrasound to avoid radiation
Right lower quadrant pain suspected appendicitis	CT Abdomen and Pelvis with contrast
Right lower quadrant pain-pregnant	Ultrasound, obtain MRI without contrast if inconclusive
Right lower quadrant pain-children	Ultrasound, obtain MRI without contrast if inconclusive
Dysphagia- oropharyngeal with attributable cause	Modified barium swallow
Dysphagia- unexplained or retrosternal	Pharyngoesophagram
Right upper quadrant pain	Ultrasound limited. If only gallstones present and no fever or elevated WBC then hepatobiliary scan.
Suspected liver metastases	MRI with and without contrast (Eovist). MRI should be first line study when indeterminate liver lesions found on ultrasound or CT.
Suspected small bowel obstruction	CT with IV contrast only if high grade or complete obstruction. Alternative: If partial or low-grade obstruction suspected MRI Enterography may be considered.
Liver Chronic disease/cirrhosis	MRI Abdomen with and without contrast (Multihance)
Perianal/Perirectal Fistula evaluation	MRI Fistulogram (Pelvis) with and without contrast



# **UROLOGIC IMAGING GUIDELINES**

Indication	Preferred Study
Flank pain- suspected stone disease	CT Abdomen and Pelvis without contrast (CTKUB). If recurrent symptoms of stone disease, then CTKUB stone protocol or ultrasound.
Scrotal pain, mass, trauma	Scrotal Ultrasound
Hematospermia	MRI prostate (Pelvis) with and without contrast
Acute pyelonephritis	CT Abdomen and Pelvis with and without contrast. Alternative: Renal ultrasound less sensitive and specific than CT
Hematuria	CT Abdomen and Pelvis with and without contrast. Order as CT- Urogram which includes high resolution excretory phase imaging of the renal collecting systems and ureters
Bladder cancer follow-up	CT Abdomen and Pelvis with and without contrast CT Urogram
Renal cell cancer follow-up	CT Abdomen and Pelvis with contrast. Alternative: MRI Abdomen with and without contrast
Incidental renal mass	Either CT or MRI Abdomen with and without contrast is appropriate
Incidental adrenal mass	CT without contrast. If indeterminate then CT with and without contrast. Alternative: MRI Abdomen without contrast if CT inconclusive also no radiation risks
Prostate cancer post treatment, rising PSA levels	Bone scan, CT or MRI Pelvis with and without contrast for soft tissue disease
Prostate cancer pre-treatment staging	MRI Pelvis with and without contrast and endorectal coil. Bone scan
Recurrent urinary tract infections in women	CT Abdomen and Pelvis with and without contrast for balder and kidneys evaluation. MRI pelvis with and without contrast to exclude urethral diverticulum or pelvic prolapse
Renal failure, rule out obstruction	Ultrasound
Renal trauma	CT Abdomen and Pelvis with contrast
Renovascular hypertension	MRA or CTA Renal Artery with contrast. Alternative: Renal Doppler ultrasound when contrast is contraindicated
Suspect lower urinary tract trauma	X-ray retrograde cystography or CT cystogram



# **WOMAN IMAGING GUIDELINES**

Indication	Preferred Study
Abnormal vaginal bleeding	Transvaginal/Transabdominal Pelvic Ultrasound
Acute pelvic pain-reproductive age-gynecological etiology suspected	Transvaginal/Transabdominal Pelvic Ultrasound. If positive pregnancy test and ultrasound inconclusive then MRI Pelvis has been beneficial in providing additional diagnostic information.
Gravid cervix assessment	Pelvic Ultrasound
Clinically suspected adnexal mass-initial evaluation reproductive age or postmenopausal.	Transvaginal/Transabdominal Pelvic Ultrasound. Short term pelvic ultrasound follow up often required based on initial findings. May proceed to MRI Pelvis for characterization based on size and composition of any ovarian findings
Adnexal mass, reproductive age, not pregnant that is persistent or getting larger	MRI Pelvis with and without contrast
First trimester bleeding	Transvaginal/Transabdominal Pelvic Ultrasound
Second, third trimester uterine bleeding	Transabdominal Ultrasound
Growth disturbances, IUGR	OB Ultrasound
Ovarian cancer screening	Transvaginal/Transabdominal Pelvic Ultrasound. Note: Women with a familial predisposition should be counselled that there is no proven benefit to current screening methods
Cervix/Endometrial cancer pre-treatment evaluation and staging	MRI Pelvis with and without contrast. Often followed by CT Chest/Abdomen/Pelvis or PET/CT.
Pelvic floor bulging, defecatory dysfunction	MRI Pelvis with and without contrast. Often followed by CT Chest/Abdomen/Pelvis or PET/CT
Vesico-vaginal or recto-vaginal fistula evaluation	MRI Pelvis Fistulography with and without contrast
Fecal incontinence-evaluate anal sphincter	MRI Pelvis-Anal sphincter without contrast (often done in conjunction with Defecography if there is also fecal incontenance)
Abnormal Fetal ultrasound (usually for better evaluation of cranial abnormalities)	MRI Fetal exam without Contrast
Fetal or Placental abnormality	MRI Fetal with and without contrast if ultrasound inconclusive



## **VASCULAR IMAGING GUIDELINES**

Indication	Preferred Study
Pulsatile abdominal mass, suspected aortic aneurysm	Ultrasound Aorta/Abdomen initial screening. May be limited by body habitus or acoustic shadow. CTA Abdomen and Pelvis preferred for symptomatic patients when ultrasound not useful.
Known aortic abdominal aortic aneurysm, treatment planning	CTA Abdomen and Pelvis with contrast
Acute aortic abnormality suspected	CTA Chest and/or Abdomen/Pelvis with and without IV contrast
Claudication-suspected vascular etiology	Lower Extremity Arterial Doppler. Alternative: lower extremity MRA or CTA Runoff providing there is no contrast contraindication.
Cold, painful leg-sudden onset	Lower Extremity Arterialography, Alternative: CTA or MRA from distal Aorta through lower extremities if no contrast contraindications and time allows.
Deep venous thrombosis-lower or upper extremity	Ultrasound Venous with Doppler
Pelvic vein or central chest vein thrombosis	MRI or CT Venography with contrast.
Upper GI bleeding-negative endoscopy	CT Enterography Abdomen and Pelvis
Suspect Endoleak	CT 3 Phase Chest / Abdomen / Pelvis with and without contrast

## PEDIATRIC IMAGING GUIDELINES

Indication	Preferred Study
Headache, acute with or without positive neurological signs and symptoms	CT or MRI Head without contrast
Hematuria	Ultrasound Renal/Bladder. If trauma then CT Abdomen and Pelvis with contrast. If stone then CT Abdomen and Plevis without contrast
Limping in child 0-5 years old	X-ray of Pelvis and Lower extremity. 3 phase Bone Scan if limping persists and negative x-rays
Seizures non traumatic	MRI Brain with and without contrast seizure protocol
Sinusitis-chronic or with orbital or intracranial complications	CT Sinus without contrast. MRI Orbits/Head with and without contrast
Urinary tract infection	Ultrasound Renal/Bladder. Voiding Cystourethrogram to exclude reflux.
Neck mass, lymphadenopathy	Ultrasound Soft Tissue Neck. CT Neck with contrast is complementary
Right lower quadrant pain under 14 years old	Ultrasound. MRI pelvis with and without contrast if ultrasound inconclusive
Suspected spine trauma, alert child no pain	X-ray. If known Cervical fracture then CT. No ACR consensus on imaging fractures of the thoracic and lumbar spine on children.
DDH (Developmental Dysplasia of the Hip), including: abnormal finding on physical or imaging exam of the hip, monitoring of patients being treated for DDH, family history of DDH, breech presentation, oligohydramnios, neuromuscular condition	Ultrasound of the Hip
Stigmata associated with spinal dysraphism such as mass, skin discoloration, tags, hair tuft, hemangiomas, pinpoint midline dimple, paramedian deep dimples, atypical dimples	Ultrasound of the Spine