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Introduction

The Spartanburg Regional Healthcare System Imaging Services Handbook was developed as a resource for providers, schedulers and other health care professionals. It contains a list of imaging services and procedures, patient preparation instructions and helpful information on scheduling and ordering procedures.

Spartanburg Regional Healthcare System provides imaging services to diagnose and treat patients at many stages of care. The system’s services cover a wide range of diagnostic exams and image-guided treatments as part of a patient’s multidisciplinary care.

Patients can receive MRIs, CT scans, ultrasounds, stress tests, general x-rays and more at Spartanburg Regional’s five convenient locations that offer imaging services. These locations include the Regional Outpatient Center at Spartanburg Medical Center, Pelham Medical Center, Pelham Medical Center Medical Office Building, North Grove Medical Park and the Bearden-Josey Breast Center.

Walk-ins are welcome for some services such as general x-rays. For other services, convenient appointment times are offered.

Spartanburg Regional Healthcare System’s staff is committed to patient safety and comfort, and a highly skilled team of board-certified physicians, technologists, and registered nurses deliver compassionate, quality health care, personalized to fit each patient’s needs.
Imaging

LOCATIONS

Spartanburg Medical Center
101 East Wood Street
Spartanburg, SC 29303

North Grove Medical Park
1330 Boiling Springs Road
Spartanburg, SC 29303

Pelham Medical Center
250 Westmoreland Road
Greer, SC 29651

Pelham Medical Center Medical Office Building
2755 South Hwy 14
Greer, SC 29650

Bearden-Josey Breast Center
101 East Wood Street
Spartanburg, SC 29303

SCHEDULING

864-560-7777 or 864-849-9399
All services except interventional radiology
(including CT, MRI, diagnostic radiology, nuclear medicine, vascular and ultrasound)

864-560-6811
Interventional radiology
SERVICES BY LOCATION:

Bearden-Josey Center for Breast Health
• MRI

North Grove Medical Park
• CT scan
• General x-ray
• MRI (MR Caring Suite available)
• Nuclear medicine
• Ultrasound and non-invasive vascular

Pelham Medical Center
• X-ray
• CT scan
• Ultrasound
• Mammography
• Nuclear medicine
• Non-invasive vascular
• Echo

Pelham Medical Center Imaging Center
• X-ray
• Bone density
• CT scan
• MRI
• Ultrasound
• Nuclear medicine
• Non-invasive vascular

Spartanburg Medical Center
• X-ray
• CT scan
• MRI
• Ultrasound
• Nuclear medicine
• Non-invasive vascular
• PET/CT
• Interventional radiology
• EEG
CT Scan

LOCATIONS
Spartanburg Medical Center
North Grove Medical Park
Pelham Medical Center

HOURS OF OPERATION
Spartanburg Medical Center: 24/7
North Grove Medical Park: Monday – Friday, 8 a.m. – 8 p.m.
Pelham Medical Center: Outpatient Hours
Monday – Friday, 7:30 a.m. – 4:30 p.m.,
extended hours till 8 p.m. by appointment

CT DEPARTMENT PHONE NUMBERS
Spartanburg Medical Center: 864-560-6571
North Grove Medical Park: 864-560-9013
Pelham Medical Center: 864-530-4664

AFTER HOURS PHONE NUMBERS
Spartanburg Medical Center: 864-560-5422
Pelham Medical Center: 864-530-4664

TABLE WEIGHT LIMITS
Spartanburg Medical Center – 500 lbs.
Pelham Medical Center – 450 lbs.
North Grove Medical Park – 500 lbs.
PROCEDURES AND DIAGNOSTIC SERVICES PROVIDED

Abdomen for Stones
• No prep needed.

Abdomen and/or Pelvis
• Nothing by mouth (NPO) for 4 hours prior to scan.
• Patient can have all regular medications.
• Oral contrast needs to be consumed starting 1 hour before appointment.
• If area of interest is in the pelvis, a longer delay may be needed (diverticular abscess or appendicitis).
• See contrast policy in notes section below.

Biopsy or Abscess Drainage/Catheter Placement
• Nothing by mouth (NPO) after midnight.
• Patient will receive conscious sedation or anesthesia during procedure.
• When procedure is scheduled, also schedule a pre-op visit. A PT and PTT will be drawn at that time. Patient must bring any imaging studies that were not performed at Spartanburg Regional Healthcare System to pre-op visit so the radiologist can review them the day before the procedure.

Brain/Head
• No prep needed.

Brain/Head with Contrast
• See contrast policy in notes section below.

CTA Abdomen
• Nothing by mouth (NPO) for 4 hours prior to scan
• Patient may have all regular medications.
• See contrast policy in notes section below.
• Do not give oral contrast.

**Chest (routine)**
• See contrast policy in notes section below.

**Chest High Resolution**
• No prep needed.

**Chest for Pulmonary Embolism**
• See contrast policy in notes section below.

**Extremities**
• No prep needed for visualization of bones.
• For visualization of soft tissue contrast may be needed; see contrast policy in notes section below.

**Low Dose CT Lung Screening** (appropriate for patients without symptoms of lung cancer)

Patients must meet the following criteria:
• Age 55-74 years
  AND
  >/=30 pack history of smoking
• Smoking cessation < 15 years
  OR
• Age >50 years AND
  >/=20 pack year history of smoking
  AND
• 1 additional risk factor.
• Documented high radon exposure.
• History of lymphomas, head and neck cancer, lung cancer, or other smoking related cancers.
• COPD or pulmonary fibrosis.
• Occupational exposure
  • Silica
  • Cadmium
  • Asbestos
  • Arsenic
  • Beryllium
  • Chromium
  • Diesel fumes
  • Nickel

**Orbits/Facial Bones**
• No prep needed for visualization of bones.
• For visualization of soft tissue, contrast may be needed; see contrast policy in notes section below.

**Pelvis**
• No prep needed for visualization of bone.
• For other indications, follow the instructions given for abdomen.

**Sinuses**
• No prep needed.

**Soft Tissue Neck**
• See contrast policy in notes section below.

**Spine**
• No prep needed.
NOTES/MISCELLANEOUS INFORMATION

• Patients requiring IV contrast that are age 55 or older with no history of renal problems require a BUN and creatinine to be performed within the last 12 months. Patients with diabetes or a history of renal failure must have BUN and creatinine within the last 3 months.

• The oral contrast most often used is barium sulfate (Redi-Cat). An iodine-based contrast (gastroview) is given in place of barium sulfate when the patient is unable to tolerate the barium. The patient can pick up the oral contrast at the registration desk in the Regional Outpatient Center or at North Grove Medical Park prior to their appointment date. Please instruct the patient to begin drinking the contrast 1 or 2 hours before scheduled appointment time (depending on the ordering diagnosis).

• If the physician is looking for something specific, please include that information on the order. Instructions should include, for example, kidney or liver lesion, with or without contrast. The order needs to be as specific as possible.

• Diabetic patients taking Metformin® should be consulted about alternate glucose control. This is due to possible counteractions of the 2 medicines. The Metformin should be stopped for 48 hours after contrast injection.
General X-Ray

LOCATIONS
Spartanburg Medical Center
North Grove Medical Park
Pelham Medical Center

HOURS OF OPERATION
Spartanburg Medical Center: 8 a.m. – 5 p.m.
North Grove Medical Park: Monday – Friday, 8 a.m. – 8 p.m.
Pelham Medical Center: 24/7

GENERAL X-RAY DEPARTMENT PHONE NUMBERS
Spartanburg Medical Center: 864-560-1344
North Grove Medical Park: 864-560-9016
Pelham Medical Center: 864-849-9270

AFTER HOURS PHONE NUMBERS
Spartanburg Medical Center: 864-560-5420
Pelham Medical Center: 864-530-4664

PROCEDURES AND DIAGNOSTIC SERVICES PROVIDED
Barium Enema
• 1 day prior to exam:
  • Start clear liquid diet the day before exam.
  • Take 4 Dulcolax® laxative tablets with water at 7 p.m.
  • Do not eat or drink anything after midnight.
• Day of exam:
  • On morning of exam, perform cleansing enemas.
  • Repeat enemas until results are clear.

Barium Enema with Air Contrast
• 2 days prior to exam:
  • Begin clear liquid diet 48 hours prior to exam (this includes breakfast, lunch, and dinner).
  • Take 4 Dulcolax® laxative tablets with water at 7 p.m.
• 1 Day Prior to Exam:
  • Continue clear liquid diet.
  • Take 4 Dulcolax® tablets with water at 7 p.m.
  • Nothing to eat or drink after midnight.
• Day of exam:
  • At 6 a.m., begin taking cleansing enemas.
  • Repeat enemas until results are clear.

Barium Swallow
• No prep needed.
• If physician is concerned with stomach as well as esophagus, then UGI should be ordered as well. This will require patient to have nothing by mouth (NPO) after midnight.

Modified Barium Swallow
• No prep needed.
• Must be scheduled with speech pathologist.

Cystogram
• No prep needed.
General Radiography
• No prep needed.

Hysterosalpingogram
• No prep needed.

Intravenous Pyelogram (IVP)
• Evening prior to exam, take 4 Dulcolax® laxative tablets at 7 p.m. with water.
• Begin clear liquid diet until exam is performed.
• This exam includes an injection of contrast material that contains iodine. Patients must inform the technologist, radiology nurse and/or physician of any allergies before exam.
• Diabetic patients taking Metformin® should be consulted about alternate glucose control. This is due to possible counteractions of the 2 medicines. The Metformin should be stopped for 48 hours post contrast injection.

Small Bowel Series
• Nothing to eat or drink after midnight.

Upper GI Series
• Nothing to eat or drink after midnight.
Interventional Radiology

LOCATION
Spartanburg Medical Center Outpatient Center

HOURS OF OPERATION
Monday-Friday, 7 a.m. – 5:30 p.m. (on call for emergencies)

SCHEDULING PHONE NUMBER:
864-560-6811

AFTER HOURS PHONE NUMBER
864-560-1211

PROCEDURES AND DIAGNOSTIC SERVICES PROVIDED
Ablations – renal cyst, celiac plexus block
• Pre-admission testing visit.

Angiography – lower extremities, upper extremities, mesenteric, cerebral, abdominal aorta, and thoracic aorta
• Pre-admission testing visit.

Arterial Intervention – angioplasty, stenting, aortic aneurysm repair, thrombolysis, embolizations (UFE’s, etc), and chemoembolizations
• Office consultation with interventional radiologist.
• Pre-admission testing visit.

Arthrograms – hip, shoulders, knees, ankles and wrists
• Bring medication list.
• Blood thinners must be stopped for appropriate time frame as approved by the physician.
• Order for procedure to scheduler.
• History and physical to scheduler.

Biliary Catheters Placements
• NPO

Biopsies – liver, lung, kidney, bone marrow, thyroid, transjugular, vertebral disc, other
• Bring medication list.
• Pre-admission testing visit for all except thyroid.
• Blood thinners must be stopped for appropriate time frame as approved by the physician.
• Order for scheduler prior to pre-admission testing visit.
• History and physical prior to pre-admission testing visit.
• Patient will need a driver.

Drainages – abcess, wound fistulas, chest tube placement, thoracentesis, paracentesis, pleurx drain placement, cholecystostomy drain placement
• NPO

Feeding Tubes – gastrostomy tube placement/change, jejunostomy tube changes, gastrojejunostomy tube placement/change
• Pre-admission testing visit.

Foreign Body Removal – venous or arterial
• Pre-admission testing visit.
Kyphoplasty
• Pre-admission testing visit.

Lumbar Punctures – blood patch, LP
• Bring medication list.
• Blood thinners must be stopped for appropriate time frame as approved by the physician.
• Order for procedure to scheduler prior to appointment date.
• Patient to stay after the procedure for 6 hours, will be lying flat.
• Have the patient drink extra water or liquids the day before the procedure so well hydrated.
• Patient will need a driver.

Myelograms – lumbar, cervical, thoracic
• Bring medication list.
• Blood thinners must be stopped for appropriate time frame as approved by the physician.
• Order for procedure to scheduler prior to appointment date.
• Patient to stay after the procedure for 6 hours, will be lying flat.
• Have the patient drink extra water or liquids the day before the procedure so he or she is well hydrated.
• Patient will need a driver.

Sialograms
• No prep needed.
Sphenopalatine Ganglion Block (SPG) – treatment for migraine headaches
• No prep needed.

Steroid Injections – epidurals, hips, SI joints, intercostal, and facet
• Bring medication list.
• Stop any blood thinner 5 days before the procedure if cleared with prescribing physician.
• Must have a driver.

Transjugular Intrahepatic Portosystemic Shunt (TIPS)
• Pre-admission testing visit.

Tumor Ablations – radiofrequency, microwave, and cryoablation
• Pre-admission testing visit.

Vena Cava Filter Placements/Removals
• Pre-Admission testing visit.

Venous Procedures – upper and lower extremity venography, DVT thrombolysis, stenting, angioplasty, central line placement, portacath placement
• Pre-admission testing visit.

Urology (including nephrostograms, nephrostomies with catheter placement/exchange)
• Pre-admission testing visit.
• Bring medication list.
• History and physical to scheduler prior to pre-admission testing visit.
• Order for procedure/study to scheduler prior to pre-admission visit.
MRI Services

LOCATIONS
Spartanburg Medical Center
North Grove Medical Park
Pelham Medical Center
Bearden Josey Breast Center

HOURS OF OPERATION
Spartanburg Medical Center: 8 a.m. – 8:30 p.m. (on call for emergencies)
North Grove Medical Park: Monday – Friday, 8 a.m. – 8 p.m.
Pelham Medical Center: Monday – Friday 7 a.m. – 6 p.m.

MRI DEPARTMENT PHONE NUMBERS
Spartanburg Medical Center: 864-560-7805
North Grove Medical Park: 864-560-9014
Pelham Medical Center: 864-849-9270

AFTER HOURS PHONE NUMBERS
Spartanburg Medical Center: 864-560-5420
Pelham Medical Center: 864-530-4664

PROCEDURES AND DIAGNOSTIC SERVICES PROVIDED
Abdomen
• No food by mouth (NPO) 3 hours prior to exam.

Brain
• No prep needed.
Contrast studies
• Creatinine levels are needed for ANY of the following conditions:
  • Less than 55 years old (ACR Guidelines)
  • History of diabetes
  • History of cancer
  • History of renal disease

Extremities
• No prep needed.

MR Angiography
• No prep needed.

Pelvis
• No prep needed.

Prostate
• No prep needed.

Rectum
• Drink bottle of magnesium citrate night before exam.
• Fleet enema 1 to 2 hours prior to scan.

Spine
• No prep needed.
MISCELLANEOUS INFORMATION

• Imaging is available on both 1.5 Tesla and 3 Tesla scanners.
• Bariatric imaging is also available.
• Nurse-administered mild sedation is available at designated locations. Ask upon scheduling.
• Anesthesia must be requested upon scheduling. All anesthesia cases must be performed at SMC.
• Orbit x-rays must be performed prior to all MRIs if the patient has had metal removed from the eyes, unless Spartanburg Regional Healthcare System has performed an orbit x-ray in the past and there is no new metal in the eyes.
• All patients are pre-screened by our pre-access department 1 to 2 days before their MRI to ensure the safety of any implant a patient may have in their body (performed to rule out any MRI contraindications that could potentially harm the patient well enough in advance, so that another test may be ordered).
Nuclear Medicine and PET/CT

LOCATIONS
Spartanburg Medical Center (Regional Outpatient Center)
North Grove Medical Park
Pelham Medical Center
Gibbs Cancer Center (PET/CT Department)

HOURS OF OPERATION
Monday-Friday
Spartanburg Medical Center: 7:30 a.m. – 11 p.m.
North Grove Medical Park: 7:30 a.m. – 4:30 p.m.
Pelham Medical Center: 7:30 a.m. – 4:30 p.m.
Gibbs Cancer Center: 7:30 a.m. – 5 p.m.

DEPARTMENT PHONE NUMBERS
Spartanburg Medical Center: 864-560-6166
North Grove Medical Park: 864-560-9009
Pelham Medical Center: 864-530-4664
Gibbs Cancer Center (PET/CT): 864-560-6414

AFTER HOURS PHONE NUMBERS
Spartanburg Medical Center: 864-560-6166
Pelham Medical Center: 864-530-4664

PROCEDURES AND DIAGNOSTIC SERVICES PROVIDED
Bone scan – total body, limited bone, 3-phase bone, SPECT/CT bone scan
• No prep needed
Cisternogram
- Only performed at Regional Outpatient Center.
- No Plavix® for 2 days; hold morning blood thinners.
- If patient is on Coumadin®, have labs drawn and discuss with radiologist prior to lumbar puncture.
- No blood thinners or aspirin for 2 days prior to exam.

DaTscan
- Patient should be well hydrated before scan.

GI Bleed Scan
- No prep needed.
- Not performed as an outpatient.

Gallium Scan
- No prep needed.

Gastric Empty
- 4 hour outpatient exam.
- NPO 4 to 6 hours before exam.
- No anti-nausea or pain medication 4 hours before exam.
- Medications affecting gastric motility stopped 2 days prior to exam.
- Diabetic patients need to bring glucose meter to appointment.

HIDA Scan
- No food by mouth (NPO) 4 hours and no pain medications 4 hours prior to exam.

I-123 MIBG
- Contact nuclear medicine for patient preparation.
In$^{111}$/TC$^{99}$ WBC (Leukocyte scan)
• No prep needed.

Liver RBC
• No prep needed.

Lung Scan (VQ scan)
• No prep needed.
• Chest x-ray within 24 hours of exam start.

Lymphoscintigraphy (only performed at SMC and PMC)
• No prep needed.

MUGA Scan
• No prep needed.

Meckle’s Scan
• No food by mouth (NPO) 4 hours prior to exam.
• No barium, laxatives or aspirin 5 days prior to exam.

Myocardial Perfusion (nuclear stress test)
• No food by mouth (NPO) 4 hours prior to exam.
• No caffeine or nicotine 24 hours prior to exam.
• No heart or blood pressure medications the day of exam.
• Bring a list of all medications to appointment.

Octreoscan
• Mild laxative (citrate of magnesium) day before exam.

PET/CT Bone Scan
• No prep needed.
PET/CT Brain Scan
- If exam is for seizure, no anticonvulsants the day of or any seizures at least 4 hours prior.

PET/CT Scan – Oncology
- Only performed at Regional Outpatient Center.
- No food by mouth (NPO) 4 to 6 hours prior to exam (water is fine).
- Patient well hydrated.
- No diabetic meds.
- No strenuous exercise 24 hours prior to exam.

Parathyroid Scan
- No prep needed.

Prostacints
- No prep needed.

Renal DMSA
- Patient well hydrated.

Renal ERPF (Triple renal scan)
- Patient well hydrated.

Renal Scan with Captopril
- Patient well hydrated.
- No ACE inhibitors or Lasix® 48 hours prior to exam.

Renal Scan with Lasix®
- Patient well hydrated.
- Patient off Lasix® for 48 hours prior to exam.
Thyroid Therapy – Hyperthyroid/Cancer
• Only performed at Regional Outpatient Center.
• Contact nuclear medicine for patient preparation.

Thyroid Uptake and Scan
• Only performed at Regional Outpatient Center.
• NPO after midnight.
• No fish oil 2 weeks prior to exam.
• Off thyroid medications as follows:
  • Methimazole/PTU 5-7 days prior;
  • Cytomel 10 to 14 days prior to exam;
  • Synthroid® 4 weeks prior to exam;
  • No iodinated contrast 4 weeks prior to exam.

Xofigo-Ra223 Therapy
• Need labs.
• Patient’s current weight.

Y-90 Sirshperes
• Current billirubin – work up with IR Radiologist.

Zevalin Therapy
• Need labs.
• Patient’s current weight.
• Pregnancy test – if applicable.
• Bone marrow biopsy results.
Ultrasound/Non-invasive Vascular/Echocardiogram

LOCATIONS
Spartanburg Medical Center: Ultrasound, Non-invasive Vascular
North Grove Medical Park: Ultrasound, Non-invasive Vascular
Pelham Medical Center: Ultrasound, Non-invasive Vascular, Echo

HOURS OF OPERATION
Spartanburg Medical Center Outpatient Center: 24/7
North Grove Medical Park: Monday – Friday, 8 a.m. – 8 p.m.
Pelham Medical Center: Medical Office Building: Monday-Friday, 8 a.m. – 5 p.m.
Genera, Non-invasive Vascular services 8:30 a.m. – 11 p.m.
Adult echocardiograms 7:30 a.m. – 4 p.m.

DEPARTMENT PHONE NUMBERS
Spartanburg Medical Center Outpatient Center: Ultrasound 864-560-6807, Non-invasive Vascular 864-560-8131
North Grove Medical Park: Ultrasound 864-560-9006, Non-invasive Vascular 864-560-9033
Pelham Medical Center: Ultrasound 864-849-9270, Non-invasive Vascular 864-530-4664

AFTER HOURS PHONE NUMBERS
Spartanburg Medical Center: 864-560-5420
Pelham Medical Center: 864-560-4666 or 864-530-4664
PROCEDURES AND DIAGNOSTIC SERVICES PROVIDED

Abdominal
• Nothing to eat or drink for 8 hours prior to exam.

Abdominal Wall
• No prep needed.

Adult Echocardiograms
• No prep needed.

Aorta/Renal
• NPO

Arterial Duplex
• No prep needed.

Carotid Duplex
• No prep needed.

Chest
• No prep needed.

First Trimester Obstetrical
• Drink 32 oz of water 1 hour prior to exam and hold bladder (do not urinate).
• Must have HCG quant level.

Gallbladder
• Nothing to eat or drink for 8 hours prior to exam.

Hysterosonogram
• Drink 32 oz. of water 1 hour prior to exam and hold bladder.

Infant (hips, spine, renal)
• No prep needed.
Infant (limited abdominal ultrasound)
• Nothing to eat or drink for 4 hours prior to exam.

Limited Pelvic
• Drink 32 oz. of water 1 hour prior to exam and hold bladder.

Liver and Renal Biopsy
• Discontinue all blood thinners for at least 5 days prior to procedure.
• Patient must be NPO for 8 hours prior to procedure.
• Patient scheduled for pre-procedure visit for lab work, work-up, etc.

Mesentary Artery Duplex
• NPO

Paracentesis/Thoracentesis
• Blood thinners must be stopped for appropriate time frame as approved by physician.
• Bring home medication list.
• Must have a driver.

Pelvis/Endovaginal Ultrasound
• Drink 32 oz of water 1 hour prior to exam and hold bladder (do not urinate).

Renal Artery Duplex
• NPO

Renal
• No prep needed.

Small Parts – thyroid, scrotum, etc.
• No prep needed.
Thyroid Biopsy
• Blood thinners must be stopped for appropriate time frame as approved by physician.

Venous Duplex for DVT
• No prep needed.

Venous Insufficiency
• No prep needed.
CT Quick Reference Ordering Guide

Below is a list of exams and how they should be ordered and scheduled. If you have any questions about the list, please contact the CT department at 864-560-6571 or Pelham Medical Center CT at 864-849-9270. To schedule a procedure, call Regional Scheduling 864-560-7777.

### CT BRAIN

<table>
<thead>
<tr>
<th>With &amp; without contrast CPT 70470</th>
<th>Without contrast CPT 70450</th>
<th>With contrast CPT 70460</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Headaches, tumor, abscess</strong></td>
<td><strong>CVA, TIA, head injury, bleed, hydrocephalus, NPH, bone disease or fracture, abnormal head size in babies. CT Scans for other diagnoses that cannot have contrast due to abnormal labs or allergy. Please call CT department to be sure study can be done w/o prior to scheduling.</strong></td>
<td><strong>Bone metastases</strong></td>
</tr>
</tbody>
</table>

CT BRAIN
### CT FACIAL BONES/ SINUSES

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Without contrast</th>
<th>With contrast</th>
</tr>
</thead>
<tbody>
<tr>
<td>With &amp; without contrast CPT-70488</td>
<td>CPT 70486</td>
<td>CPT 70487</td>
</tr>
<tr>
<td>Not routinely done</td>
<td>Bone disease, sinusitis or injury</td>
<td>Mass, tumor, abscess, cellulitis</td>
</tr>
</tbody>
</table>

### CT ORBITS

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Without contrast</th>
<th>With contrast</th>
</tr>
</thead>
<tbody>
<tr>
<td>With &amp; without contrast CPT-70482</td>
<td>CPT-70480</td>
<td>CPT-70481</td>
</tr>
<tr>
<td>Not routinely done</td>
<td>Bone disease or injury</td>
<td>Mass, tumor, abscess, cellulitis</td>
</tr>
</tbody>
</table>

### CT NECK (SOFT TISSUE)

<table>
<thead>
<tr>
<th>Procedure</th>
<th>Without contrast</th>
<th>With contrast</th>
</tr>
</thead>
<tbody>
<tr>
<td>With &amp; without contrast CPT-70492</td>
<td>CPT-70490</td>
<td>CPT-70491</td>
</tr>
<tr>
<td>Salivary gland stone, calcifications</td>
<td>Not routinely done. If looking at bone, order CT cervical spine instead of neck.</td>
<td>Mass, swelling, abscess, lymphoma, enlarged lymph nodes</td>
</tr>
</tbody>
</table>
### CT CHEST OR LUNG

<table>
<thead>
<tr>
<th>With &amp; without contrast CPT-71270</th>
<th>Without contrast CPT-71250</th>
<th>With contrast CPT-71260</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not routinely done. Occasionally requested by the cardiologist or surgeons as pre-op.</td>
<td>Follow-up nodule, asbestosis, pulmonary fibrosis, navigational bronch. If unable to have contrast due to abnormal labs or contrast allergies, call CT to be sure study can be done without.</td>
<td>Chest pain, aortic dissection, Pulmonary embolism, Aneurysm, mass, tumor, pneumonia, pneumothorax. If not specified CT, chest/ lung are done with contrast.</td>
</tr>
</tbody>
</table>

### CT ABDOMEN

<table>
<thead>
<tr>
<th>With &amp; without Contrast CPT-74170</th>
<th>Without contrast CPT-74150</th>
<th>With contrast CPT-74160</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renal protocol, adrenal protocol</td>
<td>Follow-up pancreatitis, follow-up adrenal adenoma</td>
<td>Aneurysm, liver, spleen, pancreas mass or tumor, pancreatitis</td>
</tr>
</tbody>
</table>

### CT PELVIS

<table>
<thead>
<tr>
<th>With &amp; without contrast CPT-72194</th>
<th>Without contrast CPT-72192</th>
<th>With contrast CPT-72193</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not routinely done</td>
<td>Bone disease or injury</td>
<td>Abscess, bladder injury or disease, fluid collection, mass, tumor</td>
</tr>
</tbody>
</table>
### CT ABDOMEN & PELVIS

<table>
<thead>
<tr>
<th>With &amp; without contrast</th>
<th>Without contrast</th>
<th>With contrast</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT-74178</td>
<td>CPT-74176</td>
<td>CPT-74177</td>
</tr>
</tbody>
</table>

#### Renal protocol
- Renal stone protocol, pre-op for the surgeons that are specifically ordered without.

- Appendicitis, diverticulitis, abscess (follow up abscess can be limited to abd. or pelvis depending on where it is seen on the initial scan), bowel obstruction, tumor, mass, generalized abdomen pain or swelling. If not specified abdomen/ pelvis are routinely done with IV and oral contrast.

### CT CERVICAL SPINE

<table>
<thead>
<tr>
<th>With &amp; without Contrast</th>
<th>Without contrast</th>
<th>With contrast</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT-72127</td>
<td>CPT-72125</td>
<td>CPT-72126</td>
</tr>
</tbody>
</table>

#### Not routinely done
- Bone disease or injury, post discogram

- Post-op changes, abscess, mass, tumor, post myelogram

*MRI preferred test if interested in nerves or disc.*
### CT THORACIC SPINE

<table>
<thead>
<tr>
<th>With &amp; without contrast CPT-72130</th>
<th>Without contrast CPT-72128</th>
<th>With contrast CPT-72129</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not routinely done</td>
<td>Bone disease or injury, post discogram</td>
<td>Post-op changes, abscess, mass, tumor, post myelogram</td>
</tr>
</tbody>
</table>

*MRI preferred test if interested in nerves or disc.

### CT LUMBAR SPINE

<table>
<thead>
<tr>
<th>With &amp; without contrast CPT-72133</th>
<th>Without contrast CPT-72131</th>
<th>With contrast CPT-72132</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not routinely done</td>
<td>Bone disease or injury, post discogram</td>
<td>Post op changes, abscess, mass, tumor, post myelogram</td>
</tr>
</tbody>
</table>

*MRI preferred test if interested in nerves or disc.

### CT MASTOIDS / TEMPORAL BONES / INNER EAR

<table>
<thead>
<tr>
<th>With &amp; without contrast CPT-70482</th>
<th>Without contrast CPT-70480</th>
<th>With contrast CPT-70481</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not routinely done</td>
<td>Bone disease or injury, mastoiditis</td>
<td>Not routinely done. Tumors of the inner ear will require contrast but MRI is better test if possible.</td>
</tr>
</tbody>
</table>

*MRI preferred test if interested in nerves or disc.*
# CT UPPER EXTREMITY

<table>
<thead>
<tr>
<th>With &amp; without Contrast CPT-73202</th>
<th>Without contrast CPT-73200</th>
<th>With contrast CPT-73201</th>
</tr>
</thead>
<tbody>
<tr>
<td>Not routinely done</td>
<td>Bone disease or injury</td>
<td>Mass, tumor, abscess, cellulitis</td>
</tr>
</tbody>
</table>

# CT LOWER EXTREMITY

<table>
<thead>
<tr>
<th>With &amp; without contrast CPT-73702</th>
<th>Without contrast CPT-73700</th>
<th>With contrast CPT-73701</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>Bone disease or injury</td>
<td>Mass, tumor, abscess, cellulitis</td>
</tr>
</tbody>
</table>

# CT COLONOSCOPY

<table>
<thead>
<tr>
<th>With &amp; without contrast CPT</th>
<th>Without contrast CPT-74161</th>
<th>With contrast CPT</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>Done for incomplete colonoscopy or unable to have colon in endo due to medications. Requires a H&amp;P.</td>
<td>NA</td>
</tr>
</tbody>
</table>

# CTA CHEST

<table>
<thead>
<tr>
<th>With and/or without contrast CPT-71275</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vascular anatomy in the chest. Aorta.<em>If evaluating for a PE-do not order CTA-order a CT chest with PE protocol</em></td>
</tr>
</tbody>
</table>
**CTA ABDOMEN**

With and/or without contrast
CPT-74175


**CTA ABDOMEN & PELVIS**

With and/or without contrast
CPT-74174

Patient with stents in place.
Vascular anatomy in the abdomen and pelvis.

**CTA ABDOMEN & PELVIS WITH RUN-OFF**

With and/or without contrast
CPT-75635

Vascular anatomy in the abdomen, pelvis and legs. Scan goes to the toes.

**CTA NECK**

With and/or without contrast
CPT-70498

Vascular anatomy in the neck. Usually carotid or vertebral arteries, CTA neck needs to be ordered for subclavian steal syndrome.
CTA HEAD

With and/or without contrast
CPT-70496

Vascular anatomy in the head

CTA UPPER EXTREMITY

With and/or without contrast
CPT-73206

Vascular anatomy in the upper extremity – arms, shoulder to finger tips.

CTA LOWER EXTREMITY

With and/or without contrast
CPT-73706

Vascular anatomy in the legs. Iliac arteries to toes.

CTA CARDIAC/CORONARY ARTERIES

With and/or without contrast
CPT-75574

Done to evaluate the cardiac arteries and heart.
MRI Quick Reference Ordering Guide

Below is a list of exams and how they should be ordered and scheduled. If you have any questions about the list, please contact the MRI department at 864-560-7805 or Pelham Medical Center MRI 864-849-9278. To schedule a procedure, call Regional Scheduling 864-560-7777.

### MRI HEAD/BRAIN

<table>
<thead>
<tr>
<th>With and without contrast CPT 70553</th>
<th>Without contrast CPT 70551</th>
<th>*With contrast CPT 70552</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orbits, pituitary, IAC, MS, facial nerves, cancer, stroke, CVA, TIA, headaches</td>
<td>Pregnant patients, dialysis patients, patients with history of MR contrast allergies, patients with GFR less than 30</td>
<td>ONLY performed in a brain lab protocol where prior MRI head was performed at SRHS or a nearby imaging facility or if a patient were to return for additional scans where W/O was already performed</td>
</tr>
</tbody>
</table>
## MRI CERVICAL SPINE

<table>
<thead>
<tr>
<th>With and without contrast</th>
<th>Without contrast CPT 72141</th>
<th>*With contrast CPT 72142</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT 72156</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS, cancer, syrinx, or infection</td>
<td>Pain, HNP, bulging disc, compression FX, pregnant patients, dialysis patients, patients with history of MR contrast allergies, patients with GFR less than 30</td>
<td>ONLY performed if a patient were to return for additional scans where a W/O was already performed</td>
</tr>
</tbody>
</table>

## MRI THORACIC SPINE

<table>
<thead>
<tr>
<th>With and without contrast</th>
<th>Without contrast CPT 72146</th>
<th>*With contrast CPT 72147</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT 72157</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MS, cancer, syrinx, or infection</td>
<td>Pain, HNP, bulging disc, compression FX, pregnant patients, dialysis patients, patients with history of MR contrast allergies, patients with GFR less than 30</td>
<td>ONLY performed if a patient were to return for additional scans where a W/O was already performed</td>
</tr>
</tbody>
</table>
## MRI LUMBAR SPINE

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>With and without contrast</td>
<td>CPT 72158</td>
<td>*With contrast CPT 72149</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ONLY performed if a patient were to return for additional scans where a W/O was already performed</td>
</tr>
<tr>
<td>Cancer, infection or back surgery</td>
<td></td>
<td>With and without Contrast CPT 71552</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ONLY performed if a patient were to return for additional scans where a W/O was already performed</td>
</tr>
</tbody>
</table>

## MRI CHEST

<table>
<thead>
<tr>
<th>Description</th>
<th>Code</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>With and without Contrast</td>
<td>CPT 71552</td>
<td>*With contrast CPT 71551</td>
</tr>
<tr>
<td></td>
<td></td>
<td>ONLY performed if a patient were to return for additional scans where a W/O was already performed</td>
</tr>
<tr>
<td>Mass or infection</td>
<td></td>
<td>Pain, pregnant patients, dialysis patients, patients with history of MR contrast allergies, patients with GFR less than 30</td>
</tr>
</tbody>
</table>
**MRI CARDIAC**

<table>
<thead>
<tr>
<th>With and without contrast CPT 75561</th>
<th>Without contrast CPT 75557</th>
</tr>
</thead>
<tbody>
<tr>
<td>Function and viability (most cardiac exams are preformed w &amp; w/o contrast)</td>
<td>Function, pregnant patient, dialysis patients, patients with history of MR contrast allergies, patients with GFR less than 30</td>
</tr>
</tbody>
</table>

**MRI ABDOMEN (MRCP, LIVER, KIDNEYS, PANCREAS, ADRENALS)**

<table>
<thead>
<tr>
<th>With and without contrast CPT 74183</th>
<th>Without contrast CPT 74181</th>
<th>*With contrast CPT 74182</th>
</tr>
</thead>
<tbody>
<tr>
<td>All abdomens</td>
<td>Pregnant patients, dialysis patients, patients with history of MR contrast allergies, patients with GFR less than 30</td>
<td>ONLY performed if a patient were to return for additional scans where a W/O was already performed</td>
</tr>
</tbody>
</table>
### MRI PELVIS

<table>
<thead>
<tr>
<th>With and without contrast CPT 72197</th>
<th>Without contrast CPT 72195</th>
<th>*With contrast CPT 72196</th>
</tr>
</thead>
<tbody>
<tr>
<td>Female, prostate, rectum, ulcers, open wounds, mass, osteomyelitis, infection</td>
<td>Boney structures, pain, pregnant patients, dialysis patients, patients with history of MR contrast allergies, patients with GFR less than 30</td>
<td>ONLY performed if a patient were to return for additional scans where a W/O was already performed</td>
</tr>
</tbody>
</table>

### MRI UPPER EXTREMITY JOINT (SHOULDER, ELBOW, WRIST)

Ninety percent of all orthopedic work is performed without contrast. Arthograms are always performed with contrast. Order does not have to specify contrast, just arthrogram.

<table>
<thead>
<tr>
<th>With and without contrast CPT 73223</th>
<th>Without contrast CPT 73221</th>
<th>*With contrast CPT 73222</th>
</tr>
</thead>
<tbody>
<tr>
<td>Osteomyelitis, mass, ulcer, or infection</td>
<td>Pregnant patients, dialysis patients, patients with history of MR contrast allergies, patients with GFR less than 30</td>
<td>ONLY performed if a patient were to have an arthrogram of the joint or were to return for additional scans where a W/O was already performed</td>
</tr>
</tbody>
</table>
### MRI UPPER EXTREMITY NON-JOINT (HUMERUS, FOREARM, HAND)

Ninety percent of all orthopedic work is performed without contrast.

<table>
<thead>
<tr>
<th>With and without contrast</th>
<th>Without contrast</th>
<th>*With contrast</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT 73220</td>
<td>CPT 73218</td>
<td>CPT 73219</td>
</tr>
</tbody>
</table>

Osteomyelitis, mass, ulcer, or infection
- Pregnant patients,
- dialysis patients,
- patients with history of MR contrast allergies, patients with GFR less than 30

*With contrast
- ONLY performed if a patient were to return for additional scans where a W/O was already performed

### MRI LOWER EXTREMITY JOINT (HIP, KNEE, ANKLE)

Ninety percent of all orthopedic work is performed without contrast.

Arthograms are always performed with contrast. Order does not have to specify contrast, just arthrogram.

<table>
<thead>
<tr>
<th>With and without contrast</th>
<th>Without contrast</th>
<th>*With contrast</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPT 73723</td>
<td>CPT 73721</td>
<td>CPT 73722</td>
</tr>
</tbody>
</table>

Osteomyelitis, mass, ulcer, or infection
- Signature knee,
- pregnant patients,
- dialysis patients,
- patients with history of MR contrast allergies, patients with GFR less than 30

*With contrast
- ONLY performed if a patient were to return for additional scans where a W/O was already performed
**MRI LOWER EXTREMITY NON-JOINT**  
(FEMUR, LOWER LEG, FOOT)

Ninety percent of all orthopedic work is performed without contrast.

<table>
<thead>
<tr>
<th>Condition</th>
<th>With and without contrast CPT 73720</th>
<th>Without contrast CPT 73718</th>
<th>*With contrast CPT 73719</th>
</tr>
</thead>
<tbody>
<tr>
<td>Osteomyelitis, mass, ulcer or infection</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Breast implant screening/rupture with no history of breast cancer, mentor study patients, pregnant patients, dialysis patients, patients with history of MR contrast allergies, and with GFR less than 30</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**MRI BREAST**

Unilateral CPT 77058-(mastectomy patients only)  
Bilateral CPT 77059  
Breast Biopsy CPT 19085

<table>
<thead>
<tr>
<th>Condition</th>
<th>With and without contrast CPT Unilateral 77058 CPT Bilateral 77059</th>
<th>Without contrast CPT Unilateral 77058 CPT Bilateral 77059</th>
<th>*With contrast CPT Unilateral 77058 CPT Bilateral 77059</th>
</tr>
</thead>
<tbody>
<tr>
<td>Almost all breasts are performed with and without contrast.</td>
<td>Breast implant screening/rupture with no history of breast cancer, mentor study patients, pregnant patients, dialysis patients, patients with history of MR contrast allergies, and with GFR less than 30</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ONLY performed if a patient were to return for additional scans where a W/O was already performed</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### MRA/MRV

<table>
<thead>
<tr>
<th>With and without contrast</th>
<th>Without contrast</th>
<th>With contrast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Upper Extremity-CPT 73225</td>
<td>Head-CPT 70544</td>
<td>Carotids-CPT 70548</td>
</tr>
<tr>
<td>Lower Extremity-CPT 73725</td>
<td>COW-CPT 70544</td>
<td></td>
</tr>
<tr>
<td>Chest- CPT 71555</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pelvis-CPT 72198</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abdomen- CPT 74185</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Abdomen with runoff- CPT</td>
<td></td>
<td></td>
</tr>
<tr>
<td>74185,73725 x 2</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* With Contrast- Ordering an exam “with contrast” means that the MRI will be performed “with and without contrast” the order will need to state with and without contrast. MRIs have to be performed without contrast first before a contrast injection is administered.

* With Contrast will ONLY be performed in the following situations:
  - MRA Carotids
  - MRI Arthrograms
  - When a patient is to return for additional images with contrast requested by the radiologist after an MRI without contrast procedure was performed (usually 2 weeks)

** If patient has a history of cancer then the MRI needs to be ordered with and without contrast. (Exceptions would be when ordering orthopedic imaging; MRI upper and lower extremity, MRI upper and lower extremity joint, these will be done without contrast the majority of the time unless you are looking for an indication listed on the guided chart).