INDICATIONS FOR USE OF:

CHEST CT:
1. Evaluation of abnormalities discovered on chest radiographs.
2. Evaluation of clinically suspected occult thoracic pathology.
3. Staging and follow-up of lung and other primary or secondary thoracic malignancies.
4. Evaluation for thoracic manifestations of known extrathoracic diseases.
5. Evaluation of known or suspected thoracic vascular abnormalities (congenital or acquired).
6. Evaluation of known or suspected congenital thoracic anomalies.
7. Evaluation and follow-up of pulmonary parenchymal and airway disease.

LUNGS HRCT:
1. Evaluation of diffuse pulmonary disease discovered on chest radiographs, conventional CT of the chest, or other CT examinations that include portions of the chest, including selections of the appropriate site for biopsy of diffuse lung disease.
2. Evaluation of the lungs in patients with clinically suspected pulmonary disorders with normal or equivocal chest radiographs.
3. Evaluation of suspected small airway disease.
4. Evaluation of suspected bronchiectasis.

ABDOMINAL OR PELVIC CT:
1. Evaluation of abdominal, flank, or pelvic pain.
2. Evaluation of known or suspected abdominal or pelvic masses or fluid collections.
3. Evaluation of primary or metastatic malignancies.
4. Evaluation of abdominal or pelvic inflammatory processes.
5. Assessment of abnormalities of abdominal or pelvic vascular structures.
6. Evaluation of abdominal or pelvic trauma.
7. Clarification of findings from other imaging studies or laboratory abnormalities.
8. Evaluation of known or suspected congenital abnormalities of abdominal or pelvic organs.
9. Guidance for interventional or therapeutic procedures within the abdomen or pelvis.
10. Treatment planning for radiation therapy.

**BRAIN CT:**

**Primary**
1. Acute head trauma.
2. Suspected acute intracranial hemorrhage.
3. Detection or evaluation of calcification.
4. Immediate postoperative evaluation for surgical treatment of tumor.
5. Surgical treatment of hemorrhage or hemorrhagic lesions.
6. Treated/untreated vascular lesions.
7. Shunted hydrocephalus.
8. Shunt revision.
9. Mental status change.
10. Increased intracranial pressure.
11. Headache
13. Suspected intracranial infection.
14. Suspected hydrocephalus.
17. Brain hernia ion.
18. Suspected mass or tumor.

**BRAIN CT:**

**Secondary**
1. MR imaging unavailable/ supervising physician deems CT appropriate.
2. Diplopia
3. Cranial nerve dysfunction.
4. Seizures
5. Apnea
6. Syncope
7. Ataxia
8. Suspicion of neurodegenerative disease.
10. Neuroendocrine dysfunction.
11. Encephalitis
12. Vascular occlusive disease or vasculitis (including CT angiography and/or venography).
13. Aneurysm
15. Cortical dysphasia.
16. Migration anomalies or other morphologic brain abnormalities.
SOFT NECK TISSUE CT:
2. Benign and malignant neoplasm.
3. Infections and inflammatory processes.
4. Trauma
5. Vascular malformations.
7. Radiation therapy treatment planning.
8. Follow-up after surgery, chemotherapy, or radiation therapy.
10. Thyroid conditions.

PARANASAL SINUSES CT:
2. Fibro-osseous disease.
3. Sinonasal neoplasm, including benign or malignant lesions and soft tissue or bone involvement.
4. Facial trauma.
5. Acute and chronic inflammation.
6. Follow-up after surgery, chemotherapy, or radiation therapy.
7. Radiation therapy treatment planning.

ORBITS CT:
2. Proptosis
3. Fibro-osseous disease.
4. Orbital and ocular neoplasms.
5. Trauma
6. Infections and inflammation.
7. Thyroid orbitopathy.
8. Follow-up after surgery, chemotherapy, or radiation therapy.
9. Radiation therapy treatment planning.
10. Foreign body.
11. Diplopia
12. Loss of vision.
13. Complications of sinusitis and sinus surgeries.

TEMPORAL BONE CT:
1. Conductive or sensorineural hearing loss.
2. Neoplasms
3. Trauma
4. Acute or chronic otomastoid inflammatory disease.
5. Preoperative evaluation prior to mastoidectomy.
6. Preoperative evaluation for cochlear implant.
7. Suspected inner ear disease.
8. Radiation therapy treatment planning.
9. Follow-up after surgery, chemotherapy, or radiation therapy.

**CONTRAST INJECTION**
Creatinine over 2.0 not routinely injected.

Myeloma – not injected with contrast.

Allergy – not routinely injected and if injected must be premedicated.

**Labs**
Serum creatinine level within the last six months required for the following patients:
- All patients 60 or older.
- All patients under 60 with the following conditions:
  1. Known renal disease.
  2. Prior renal disease.
  3. Diabetic
  4. History of rising creatinine.

**Brain without Contrast**
1. Trauma, bleed, subdural hematoma.
2. Atrophy, Alzheimer NPH, Parkinson’s.
3. Hydrocephalus, shunt evaluation, ventricle size.
4. Recent infarct
5. Recent change in mental status.
6. Dementia
7. Initial ER

**With/Without Contrast**
1. Headache
2. Psychiatric
3. Vertigo
4. r/o tumor
5. r/o mets
6. Multiple sclerosis
7. Seizure disorder
8. HIV positive
9. Infection, abscess, meningitis
10. AVM
11. Metastatic Melanoma
12. Meningioma
13. Routine

**Sinuses and Facial Bones**
Without contrast.

<table>
<thead>
<tr>
<th>Orbits</th>
<th>Without Contrast</th>
<th>With Contrast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trauma</td>
<td></td>
<td>Mass</td>
</tr>
<tr>
<td>Foreign Body</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thyroid Ophthalmopathy</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fracture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Lacrimal duct</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cystic Nerve compression</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Temporal Bones</th>
<th>Without Contrast</th>
<th>Without/With Contrast</th>
</tr>
</thead>
<tbody>
<tr>
<td>In inner Ear abn/hearing loss</td>
<td></td>
<td>Mass</td>
</tr>
<tr>
<td>Cochlear Otosclerosis</td>
<td></td>
<td>Facial nerve pathology</td>
</tr>
<tr>
<td>Fracture</td>
<td></td>
<td>Vascular inner ear anomaly</td>
</tr>
<tr>
<td>Hearing loss w/o atresia</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Neck</th>
<th>Routine with contrast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parotid w/wo r/o stone</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chest</th>
<th>Without Contrast</th>
<th>With Contrast</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interstitial disease</td>
<td></td>
<td>Routinely</td>
</tr>
<tr>
<td>Nodules? calcification</td>
<td></td>
<td>Mass</td>
</tr>
<tr>
<td>Abnormal CXR</td>
<td></td>
<td>Pulmonary Embolism</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Abdomen</th>
<th>Without</th>
<th>With</th>
</tr>
</thead>
<tbody>
<tr>
<td>pancreas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Liver-hemangioma, hematom, ?cyst renal mass cysts?</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Abdomen and Pelvis</th>
<th>Without</th>
<th>With</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kidney stone</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Flank pain</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

| Spine, Leg Length and Extremities | Without |

Reference: ACR (American College of Radiology)