PET Patient Prep Information

Appalachian Regional Healthcare System Imaging Services
Cannon Memorial Hospital
Watauga Medical Center
Table Weight Limits for each facility

<table>
<thead>
<tr>
<th></th>
<th>Cannon Memorial Hospital</th>
<th>Watauga Medical Center</th>
</tr>
</thead>
<tbody>
<tr>
<td>MRI 1 (High Field)</td>
<td>350 lbs.</td>
<td>440 lbs.</td>
</tr>
<tr>
<td>MRI 2 (Open)</td>
<td>490 lbs.</td>
<td></td>
</tr>
<tr>
<td>CT 1 (VCTXT)</td>
<td>500 lbs.</td>
<td></td>
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<tr>
<td>CT 2</td>
<td>450 lbs.</td>
<td></td>
</tr>
<tr>
<td>CT Scan Table</td>
<td>450 lbs.</td>
<td></td>
</tr>
<tr>
<td>Diagnostic x-ray room 1</td>
<td>300 lbs.</td>
<td>300 lbs.</td>
</tr>
<tr>
<td>Diagnostic x-ray room 2</td>
<td>300 lbs.</td>
<td></td>
</tr>
<tr>
<td>Diagnostic x-ray room 3</td>
<td>300 lbs.</td>
<td></td>
</tr>
<tr>
<td>Diagnostic ER x-ray</td>
<td>460 lbs.</td>
<td></td>
</tr>
<tr>
<td>Nuclear Medicine</td>
<td>400 lbs.</td>
<td>440 lbs.</td>
</tr>
<tr>
<td>Ultrasound</td>
<td></td>
<td>500 lbs.</td>
</tr>
<tr>
<td>Ultrasound Stretcher</td>
<td>500 lbs.</td>
<td></td>
</tr>
<tr>
<td>Outpatient/Lab Center X-ray</td>
<td></td>
<td>460 lbs.</td>
</tr>
<tr>
<td>Dexa scan</td>
<td></td>
<td>350 lbs.</td>
</tr>
<tr>
<td>Dexa table</td>
<td></td>
<td>300 lbs.</td>
</tr>
</tbody>
</table>

**Scheduling / General information**

- All Imaging exams must be scheduled with the scheduling department with exception to some diagnostic radiology exams.

- To schedule an appointment please contact our scheduling department at 828-268-9037 between the hours of 8:00am-5:00pm. If you reach the voicemail please leave a detailed message and someone will answer your call as soon as possible.

- On the day of your exam please arrive 15 minutes prior to your exam time to register at outpatient registration.

- To have an imaging exam done there must be a physicians order.

- According to the patient preps for certain exams, lab results should be available prior to the exam.
If you have any questions about your exam please call the Imaging Department

Watauga Medical Center:  (828) 262-4153
Watauga Medical Outpatient Imaging/Lab Center:
   (828) 266-2498
Cannon Memorial Hospital:  (828) 737-7620

General description of each Imaging department

• **Radiography (“X-Ray”)** – Uses x-rays to create images.
  X-rays created in an x-ray tube pass through a patient to reach the ‘image receptor’ (‘cassette’). The cassette is then inserted into a computed radiography ‘reader’ that converts the energy absorbed by that cassette into a visible image seen on a computer. Radiography best visualizes bones, lungs, and contrast-filled organs (i.e. GI tract, kidneys). Radiography can be used in conjunction with or to enhance another modality, i.e. injecting a joint with contrast before an MRI is obtained or injecting contrast into the spinal canal before a CT is obtained. The contrast media used is usually barium, iodine, or air, depending on the study being performed.

• **Computed Tomography (“CT”)** – Uses x-rays to create images.
  Multiple x-rays of ‘slices’ or planes of the body are obtained and reconstructed by a computer to form an image. CT is frequently performed for patients with trauma, kidney stones, cardiac issues, suspected stroke or pulmonary embolism, or abdominal pain. Biopsies are also frequently performed using CT to guide the radiologist. The contrast media used can be orally-ingested barium, IV iodine, or rectally-induced air, depending on the area to be imaged. CT can be used to visualize bone or soft tissue.

• **Magnetic Resonance Imaging (“MRI”)** – Uses a strong magnetic field and radio waves to create images. The patient lies on a table within a strong magnetic field with a ‘coil’ placed over the body part of interest. The body emits ‘signals’ in response to changes in the magnetic fields, which are transmitted by the coil to a computer. The computer converts these signals to images of planes (‘slices’) of the body. Gadolinium is the most frequently used contrast agent used. MRI is best for visualization of soft tissues.
• **Ultrasound ("Sonography")** – Uses sound waves to create images. High-frequency sound waves are sent through the patient’s body and the ‘echoes’ are converted by a computer into images. The patient may be asked to be NPO or have a full bladder so that these ‘echoes’ may be enhanced. Ultrasound is often used to guide biopsies of soft tissue organs. Ultrasound is used to visualize soft tissue structures.

• **Nuclear Medicine** – Uses ingested or injected radioactive materials to create images. The patient is given either an orally or intravenously administered radioisotope that targets a specific part of the body. The patient is then (after a specified period of time) placed under a ‘camera’ which detects the radiation emitted by the patient’s body. A computer then converts those detections to an image. Nuclear medicine is used to assess a specific system function and is not used to image anatomy.

• **Mammography** – Uses x-rays to create images of the breast. X-rays are produced in an x-ray tube, which pass through a patient’s breast to a detector. The detector absorbs the x-rays and converts them to an electrical signal which is then converted by a computer into an image. It is used as a screening exam for detection of breast cancer and also for diagnosis of breast lumps, microcalcifications, etc. It may also be used to guide placement of localization devices such as wires or needles in a breast prior to surgery, as well as to image breast tissue removed during surgery. Watauga Medical Center only offers mammography at Outpatient Imaging/Lab Center. Cannon Memorial does mammography at the hospital.

• **Bone Densitometry ("Dexa")** – Uses x-rays to measure bone density. A ‘pencil-beam’ (tightly restricted x-ray beam) is used to scan the lower back and the hip. The beam passes through the body and a detector absorbs the energy of the x-ray beam. That energy is then converted to a non-diagnostic image and a numerical value, providing a calculation of bone density. That calculation is also compared to other age groups and to previous scans a patient may have had. This modality is only used to diagnose osteoporosis or osteopenia. There is not a preparation prior to this exam. Watauga Medical Center only offers Dexa scans at the Outpatient Imaging/Lab Center. Cannon Memorial offers Dexa scans at the hospital.
Imaging Department

PET PATIENT PREPS
(Done at Watauga Medical Center only)

Non-Diabetic Patients
- NPO for 6 hours, aside from water, which should be encouraged.
- No sugar in any form for 8 hours prior to injection time (candy, gum, breath mints, soda, etc.)
- No strenuous exercise for 12 hours prior to injection time.
- Medications may be taken as long as they may be tolerated with water only.
- Low carbohydrate meal recommended the evening prior to the exam.

Diabetic Patients
- Patients should take their medications up to 4 hours prior to their examination, as normally prescribed by their physician, including with food, if so prescribed. If they are to take their medication with a meal, it should be high protein and low carbohydrate. (The patient must remain without food for 4 hours prior to scanning – very important).
- Water should be encouraged in order to insure hydration.
- No sugar in any form 8 hours prior to injection.
- No strenuous exercise for 12 hours prior to injection.
- Low carbohydrate meal recommended the evening prior to examination.

Please note: the technologist will check the patient’s blood glucose level prior to injection of FDG, the recommended range is 200 mg/dl.
IMPORTANT NOTICE

PET Scans will take up to 3 hours. The patient will be injected with the drug and will have a wait of approximately 60 minutes BEFORE the scan starts. The scan will take approximately one more hour after the delay. Inform patients to allow 2-3 hours for their exam.

Wait Times Following Therapy
- For patients undergoing Chemotherapy, a waiting period of two weeks is recommended before performing a PET study. A PET study may be safely scheduled between courses of chemotherapy (normally between courses 3 and 4) as long as two weeks have elapsed since completion of the previous course.
- For patients undergoing Radiation Therapy, a waiting period of 6-8 weeks is recommended prior to a PET study. If the study is performed between courses of radiation, two weeks must have elapsed since completion of the previous course.

Scheduling PET and Diagnostic CT on Same Day
- All above preparation rules apply to these patients.
- The PET scan must be completed in its’ entirety prior to the patient receiving oral contrast preparation. The patient should not be given oral contrast to take home from the physician’s office – we will provide it to them at WMC after their PET scan is finished.
- It is important to tell the patient they will be at WMC for an extended period of time, depending on the type of diagnostic CT that will follow the PET scan. If for an abdomen/pelvis CT with contrast, the time to drink the contrast will be approximately 1 ½ to 2 hours in addition to the CT scan time.