

***DEXA***  
***Patient Prep***  
***Information***



Cannon Memorial Hospital  
Watauga Medical Center

<b>Table Weight Limits for each facility</b>			
	<b>Blowing Rock Hospital</b>	<b>Cannon Memorial Hospital</b>	<b>Watauga Medical Center</b>
MRI 1 (High Field)		350 lbs.	440 lbs.
MRI 2 (Open)			490 lbs.
CT 1 (VCTXT)			500 lbs.
CT 2			450 lbs.
CT Scan Table		450 lbs.	
Diagnostic x-ray room 1	300 lbs.	300 lbs.	300 lbs.
Diagnostic x-ray room 2			300 lbs.
Diagnostic x-ray room 3			300 lbs.
Diagnostic ER x-ray			460 lbs.
Nuclear Medicine		400 lbs.	440 lbs.
Ultrasound			500 lbs.
Ultrasound Stretcher		500 lbs.	
Outpatient/Lab Center X-ray			460 lbs.
Dexa scan			350 lbs.
Dexa table		300 lbs.	

## **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

**Blowing Rock Hospital:** (828)295-3136 ext. 518

## **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. Gado-

linium 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.

## **DXA (Bone density test)**

A DXA scan, also known as bone densitometry, 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.

### What to Expect:

- At Watauga Medical Center DXA scan services are offered at the Outpatient Imaging/Lab Center. At Cannon Memorial DXA scan services are offered at the hospital.
- There is not a preparation for this exam.
- You will be asked to lie on your back on a padded table.  
NOTE: It is best if you have no metal on your clothing below the waistline, i.e. zipper, snaps, etc.
- The "arm" of the scanner will move over your back and hip while you lie still.
- The scans are painless and only take 7-10 minutes.
- Your results are sent to your physician within 24 to 48 hours.