



Exam Preparations

Barium Enema

Description:

A special x-ray of the colon that visualizes the entire large bowel. A liquid barium is given by enema to coat the large intestine and make it visible by x-ray. In some cases air is mixed with the barium as well.

Preparation:

Over the counter bowel prep kit the night before the exam and possibly a few hours before the exam. A laxative may be recommended in a pill or liquid form. Nothing to eat or drink (NPO) after midnight.

Exam Time:

30-45
minutes

Patients should arrive 15 minutes early to process paperwork

Post Instructions:

It is recommended that fluids be increased for the remainder of the day following the

barium enema to help the body completely evacuate the residual barium.

Bone Densitometry

Description:

Bone Densitometry is a non-invasive procedure in which a patient's bone mineral density is measured. A very low energy x-ray beam is used to produce a scan of the lumbar spine and hip or forearm. Doctors use the information gathered from this study to assess bone condition, risk of fracture, and to assist in diagnosis for treatment.

Preparation:

Bone densitometry may not be performed within one week of any Nuclear Medicine studies or any studies using contrast, such as Upper GI or Barium Enema. If the patient is taking calcium supplements, they need to **stop** taking them 24 hours prior to exam. Comfortable clothing should be worn such as two-piece sweat suits or soft cotton clothing. Metal objects such as belt buckles, snaps, zippers, and buttons will

interfere with the scan and must be removed. The scan occurs with the patient fully clothed, lying on a table, while the camera is imaging the area(s) of interest.

Exam Time:

The scan is usually completed within 30-45 minutes

Patients should arrive 15 minutes early to process paperwork

Post Instructions:

None

CT (Computed Tomography)

Description:

CT, Computed Tomography, is an x-ray examination using a scanner to produce a series of cross-sectional images of selected parts of the body. The CT scanner contains a large donut-shaped ring that the body slowly passes through on a moveable table. An x-ray beam then rotates around the patient producing images of specific parts of the body. The examination is painless and will produce detailed pictures of selected body parts.

Preparation:

In order to make pictures of certain parts of the body clear, some CT scans require the use of contrast materials to highlight internal structures. This contrast may be given by mouth and/or injected into a vein.

If contrast material by injection is needed, an IV will be started before the scan. A small blood sample may be drawn at that time to check kidney function since this contrast is eliminated through the kidneys.

Oral contrast may be given before the scan. The process of the contrast traveling throughout the stomach and intestines may take as long as two hours, especially for scans that include the pelvis. In some cases, contrast is given to drink the evening before the exam.

Exam Time:

The total amount of time the patient spends in the scanner is usually 15 minutes or less, however more time should be allowed for the entire visit.

Patients should arrive 15 minutes early to process paperwork

Post Instructions:

If contrast material is injected into the vein, it will be eliminated through the urine and should cause no discoloration. It is recommended that fluid intake be increased after the scan to help eliminate the contrast from the body.

The patient should be able to resume normal diet and activities immediately.

Results:

The patient's exam will be interpreted by a radiologist specializing in CT interpretation and then phoned, faxed, or mailed to the referring physician promptly.

Duplex Doppler Ultrasound

Description:

Diagnostic ultrasound, sometimes called sonography, is a procedure that uses sound waves higher than the human ear can detect to examine structures and tissues within the body. A small device called a transducer is used to send sound waves into the body, which are then reflected off of internal structures. The returning sound waves (echoes) are then sent back to the same transducer and the attached equipment electronically changes the echoes into a picture of your internal structures.

A warmed gel will be applied to the skin surface to provide better contact between the transducer and the skin. The gel is easily removed, but the patient should wear easily washable clothing. Ultrasound provides a noninvasive, safe and painless means of observing soft tissue anatomy.

Ultrasound cannot be used to examine bones because bone weakens sound waves. In addition, ultrasound cannot obtain images through bowel gas. There are no known harmful effects associated with the medical use of sonography.

Duplex or duplex Doppler ultrasound is a special form of ultrasound commonly used to evaluate blood flow. It combines standard ultrasound imaging information with Doppler flow information. Doppler measures the speed and the direction of the flow of blood. It can also be useful to estimate the diameter of a blood vessel as well as the amount and location of obstruction, if any, in the blood vessel. An audible sound may be used or the flow may be shown as a graph or color display.

Preparation:

Abdominal duplex Doppler ultrasound requires nothing to eat or drink after midnight due to bowel gas in that area of the body. No preparation is necessary for Doppler ultrasound of the neck, arm, and leg blood vessels.

Exam Time:

The length of time for the examination varies with the complexity of the exam and the specific reasons for which it was requested. Generally, actual scanning times can range from 30-60 minutes. For all exams, patients should allow more time for the entire visit. In many cases, follow-up exams are necessary to evaluate the progression of obstruction.

Patients should arrive 15 minutes early to process paperwork

Post Instructions:

After the exam, patients can safely drive home and eat and drink normally.

Hysterosalpingiograms (HSG)

Description:

Images of the uterus and fallopian tubes are taken by injecting contrast via catheter inserted into the uterus.

Preparation:

None

Exam Time:

30 minutes

Patients should arrive 15 minutes early to process paperwork

Post Instructions:

None

MRI

Description:

MRI is a medical imaging procedure that uses a strong magnet, radiowaves, and a computer to produce high quality cross-sectional images of the inside of the body.

Our traditional high-field MRI system is a 1.5 tesla Siemens Magnetom Avanto . This state-of-the-art imaging system uses a powerful magnetic field with technology that provides excellent image quality with high-resolution of small parts of the body. The high-field examination times are faster due to the more powerful magnet. The majority of patients who need MRI exams are comfortable with the amount of space provided.

Preparation:

There is no specific preparation for most types of MRI. Abdominal MRI exams may require that the patient have nothing oral four to six hours prior to the exam. If contrast material by injection is needed, an IV will be started before the scan. A small blood sample may be drawn at that time to check kidney function since this contrast is eliminated through the kidneys. All metal items on the patient's clothing, including metal belt buckles, snaps, or hairpins must be removed prior to the examination. Patients with pacemakers, aneurysm clips, or other metallic, mechanical, electrical and electrically conductive devices cannot be scanned. The patient may leave immediately following the test because there are no side effects from MRI.

Exam Time:

Examination times are generally 30-45 minutes.

Post Instructions:

None

Shoulder Arthrogram

Description:

Images of the shoulder joint, surrounding soft tissue, and synovial fluid surrounding the joint. This is done by using live x-ray to inject contrast media into the shoulder joint. A CT or MRI sometimes will follow the injection.

Preparation:

Patient should bring outside films of the affected shoulder if any are available.

Exam Time:

30 minutes.

Patients should arrive 30 minutes before exam time

Post Instructions:

None

Small Bowel

Description:

An x-ray examination of the small intestines, which may be done by itself, or immediately following an Upper GI series. The patient will be asked to drink a barium preparation to make the small intestines visible on x-ray.

Preparation:

Nothing to eat or drink after midnight (NPO). This includes any medication. If you are uncomfortable postponing any medication for 2-3 hours consult your physician.

Exam Time:

Because of the small intestines length (approximately 26 feet) and varied motility, this process can take as little as **30 minutes or as much as several hours**. The entire length of the small bowel must be visualized before the exam is complete. The speed at which the barium travels within the small bowel depends entirely upon each individual patient's body.

Patients should arrive 15 minutes early to process paperwork

Post Instructions:

It is recommended that fluids be increased for the remainder of the day following the Small bowel series to help the body completely evacuate the residual barium.

Ultrasound

Description:

Diagnostic ultrasound, sometimes called sonography, is a procedure that uses sound waves higher than the human ear can detect to examine structures and tissues within the body. A small device called a transducer is used to send sound waves into the body, which are reflected off of internal structures. The returning sound waves (echoes) are then sent back to the same transducer and the attached equipment electronically changes the echoes into a picture of your internal structures.

A warmed gel will be applied to the skin surface to provide better contact between the transducer and the skin. The gel is easily removed, but the patient should wear easily washable clothing. Ultrasound provides a noninvasive, safe and painless means of observing soft tissue anatomy.

Ultrasound cannot be used to examine bones because bone weakens sound waves. In addition, ultrasound cannot obtain images through bowel gas. There are no known harmful effects associated with the medical use of sonography.

Upper GI

Description:

An x-ray of the upper portion of the digestive system, which includes the esophagus and stomach. The patient will be asked to drink a barium preparation to make the GI tract visible by x-ray. The patient may also be asked to swallow some "fizzy" type crystals to help with visualization of the stomach.

Preparation:

Nothing to eat or drink after midnight (NPO). This includes any medication. If you are uncomfortable postponing medication for 2-3 hours consult your physician.

Exam Time:

20-30
minutes

Patients should arrive 15 minutes early to process paperwork

Post Instructions:

It is recommended that fluids be increased for the remainder of the day following the Upper GI to help the body completely evacuate the residual barium.

General X-Ray

Description:

An x-ray exam (or radiograph) is a painless medical exam that uses a small dose of ionizing radiation to produce images of the inside of the body. An x-ray technologist is a specially trained health care professional that knows how to produce the images your physician has requested. These images are reviewed by a special doctor called a radiologist and then the report is provided to your physician. An x-ray of bones can detect fractures, dislocations, changes due to arthritis, and other diseases of the bone like osteoporosis and cancer. A chest x-ray can detect pneumonia, tuberculosis, cancer and many other diseases of the lung. An abdomen x-ray can detect bowel obstructions, foreign bodies and in some cases kidney or gall stones.

Preparation:

No special preparation is necessary for an x-ray exam. You may be asked to remove any jewelry and clothing that has metal fasteners. You may be asked to lie on an exam table, maintain specific positions and hold your breath while the images are produced.

Exam Time:

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General x-ray exams are quick, usually less than 10 minutes. This may vary depending on the images your physician has requested.

Post Instructions:

There are no special instructions following an x-ray exam.

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