

COMMON DIAGNOSTIC TESTS

BIOSPY

A biopsy may be done during surgery to check for cancer or other problems. Any part of the body, such as the skin, an organ or a lump can be tested. A small piece of tissue is removed and sent to a lab for testing. The doctor will review the biopsy results and discuss with you whether treatment is necessary.

Before the procedure:

You will need to stop taking any blood thinners (e.g. aspirin or Coumadin) because these medications can cause bleeding. X-ray, CT scan or ultrasound may be used to locate the biopsy site.

During the procedure:

The area will be cleaned with alcohol and a local anesthetic will be given by injection. The doctor will inject a needle or cut a small opening into the numbed area to take out a small piece of tissue.

COLONOSCOPY

Colonoscopy is a test used to check the large intestine (colon). A colonoscopy is commonly used to assess gastrointestinal symptoms, such as rectal and intestinal bleeding, abdominal pain, or changes in bowel habits.

Before the procedure:

The doctor will prescribe a medicine for you to take the day before the procedure to clean out the colon. After drinking the medicine and emptying your bowels, you should not eat anything before the procedure.

During the procedure:

You will lie on a table and be given an anesthesia drug through the vein. A thin tube with a camera is gently placed into the rectum and guided into the colon. This allows the doctor to see the inside of

the colon. If a polyp is found, the doctor will remove the polyp and send it to a lab for biopsy.

CT SCAN (COMPUTED TOMOGRAPHY)

The CT machine produces three-dimensional, cross-sectional images of internal organs, bones, soft tissues, and blood vessels. A very small amount of radiation is used to produce these images. CT scans are useful in identifying tumors and abnormal structures in the body. The procedure is painless and takes only a few minutes.

Before the procedure:

Remove jewelry and any other metal objects from the body. It is very important that you tell the doctor or technician if you are pregnant so as not to expose your unborn baby to radiation.

During the procedure:

You will lie on a table that slides into the CT scanner and will need to remain very still. A contrast dye containing iodine may be given by mouth or injected into the veins to produce clearer images. Before receiving the dye, your doctor will order blood test to check your kidney function and will also make sure that you are not allergic to the dye.

MRI (MAGNETIC RESONANCE IMAGING)

MRI uses a strong magnetic field and radio waves to look at the inside of your body. MRI is very useful for examining the brain and spinal cord. MRI does not give out any radiation. The procedure is painless and takes about half an hour.

Before the procedure:

Remove all jewelry and metal objects from the body. Notify the doctor if you have:

- metal or electronic implant in your body (e.g. pacemaker or artificial joint)
- tattoos or medication patches on the body (can cause skin irritation)

During the procedure:

A contrast solution may be given through the veins to produce a better picture. You will lie on a table that slides into a tunnel-shaped machine. You must stay very still during the scanning process. The machine makes a lot of noise so you will need to wear ear plugs.

NUCLEAR SCANS

Nuclear scans use a small amount of radioactive material that are inhaled, swallowed or injected into the vein. A special camera is then used to detect the structure, function and activity of the organs inside your body. Nuclear scans help to diagnose diseases and conditions such as cancers, injuries, infections in their early stage. The procedure usually takes between 20 to 45 minutes.

Before the procedure:

Remove jewelry and any other metal objects from the body. It is very important that you tell the doctor or technician if you are pregnant so as not to expose your unborn baby to radiation, or are breastfeeding (radioactive material may appear in breast milk). If you are to receive anesthesia, you will be given specific instructions regarding food and drink.

During the procedure:

You will lie on a table while the camera creates images.

ULTRASOUND

Ultrasound uses high-frequency sound waves to view the organs and structures in the body- heart, blood vessels, kidneys, and other organs. Ultrasound is commonly used during pregnancy

to view the fetus. Ultrasound is a quick and safe procedure with no radiation exposure.

Before the procedure:

Depending on the area to be examined, you may be instructed to drink a lot of water before the test and not urinate until after the test.

During the procedure:

You will need to lie on a table and a technician or doctor will apply a thin layer of gel on the skin over the part of the body where images are to be obtained. A transducer or probe will be placed on the skin to send sound waves into the body in order to produce an image.

X-RAY

X-ray uses a small amount of radiation to produce images of the internal parts of the body. The procedure is quick and painless and is commonly used to look at broken bones, breasts, and lungs.

Before the procedure:

Remove jewelry and any other metal objects from the body. It is very important that you tell the doctor or technician if you are pregnant so as not to expose your unborn baby to radiation.

During the procedure:

You will stand or lie on a table, hold your breath for a short time and remain still while the X-ray is being taken.

For more information about diagnostic tests:

National Library of Medicine

<https://www.nlm.nih.gov/medlineplus/diagnostictests.html> (English)

<https://www.nlm.nih.gov/medlineplus/languages/chinesetraditional.html> (Chinese)