

Diagnostic Tests, Scans and Procedures

Your healthcare team will always explain the exact procedure to you and answer any questions you may have prior to any test. Parents are able to comfort their child during some tests. Some procedures require sedation, general anesthesia or an operation.

Audiogram

A hearing test given before and after certain treatments.

Biopsy

A collected sample of tissue which is later examined for abnormal cells. There are three types of biopsies used to collect tissue samples:

Needle Biopsy

A method used to diagnose whether abnormal cells are present by inserting a needle through the skin. Your child may feel pressure or discomfort when the needle is inserted. We usually use sedation or general anesthesia to help relax your child and use a local anesthetic to numb the needle insertion site.

Minimally Invasive Surgery

A method of collecting a sample of the tissue through a small incision. It usually requires sedation or general anesthesia to make your child more comfortable.

Surgical Biopsy

A method of collecting tissue performed in the operating room. General anesthesia will be used during the procedure.

Bone Marrow Aspiration and Biopsy

A method to collect a sample of bone marrow, the substance in the center of bones that produces white blood cells, red blood cells, and platelets. Bone marrow is usually taken from your child's hip bone. The sample is then examined for abnormalities or to monitor your child's response to treatment. This procedure is usually performed in the clinic, treatment room of the hospital, or the operating room. Your child will receive sedation or general anesthesia.

- For an aspiration, a needle is placed in the hip and a syringe is used to withdraw a sample of the bone marrow.
- If a biopsy is done, a small sliver of bone is taken from the same insertion site.

Bone Scan

A nuclear medicine test to look at the bones for disease, fractures or infection. Your child will receive a small amount of radioactive dye through an intravenous (IV) line before the scan. The bones are then examined by a special camera. Your child may need sedation or general anesthesia.

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Computerized Axial Tomography

A CAT or CT scan is a radiology test that takes pictures to identify and measure the presence of abnormal cells throughout the body. Sedation or general anesthesia may be used if needed to help your child remain still. In many cases, children will have to swallow and/or receive a contrast by IV to help visualize certain body areas.

Creatinine Clearance

A test to measure how well the kidneys are working by collecting all of your child's urine in a container for 24 hours.

Echocardiogram

An "echo" records movements of your child's heart. It uses ultrasound waves without risk to your child. Sometimes, sedation is needed for children who have a difficult time remaining still.

Electrocardiogram

An EKG or ECG is a test that records the heart rhythm. Sticky pads will be placed on your child's arms, legs, and chest. These are connected to wires leading to a machine that will record your child's heart rhythm.

Gallium Scan

Your child will receive a radioactive isotope injected by IV that is only absorbed by certain tissue types. After 72 hours, pictures will show where these cells are present within the body. There is no risk to your child from the radioactive isotope. Often, more pictures are needed 2-4 days later.

Glomerular Filtration Rate

Glomerular filtration rate (GFR), is a test which measures kidney function. It is done before and after some chemotherapy treatments. Your child will receive a radioactive dye by IV and then have a series of timed blood collections to measure how much radioactive dye remains in the blood. Because the kidneys remove waste from the blood, the test helps understand how well the kidneys are working by measuring how quickly the radioactive dye is removed from the blood.

Lumbar Puncture

A procedure that collects a sample of cerebrospinal fluid, also called CSF, which surrounds the brain and spinal cord to determine the presence of cancer cells or progress of treatment. A needle will be inserted between the bones of your child's lower back. If your child needs chemotherapy into the spinal fluid, it will be injected slowly through the needle that is already in place. The procedure is usually done in the clinic, the treatment room of the hospital, or operating room, and your child will receive procedural sedation or general anesthesia.

Magnetic Resonance Imaging

An MRI, is a test that provides detailed images of the inside of the body. It is used to identify and measure the presence of abnormal cells throughout the body. Your child will be placed inside a tunnel like machine. The machine is very noisy. Often, children will have to receive a contrast dye by IV to help visualize certain body areas. Your child may be given a sedative or general anesthesia to help them keep still.

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MIBG scan

Your child will receive an injection of a radioactive isotope that is only absorbed by certain cells, particularly those that are found in neuroblastoma and pheochromocytoma. After 24 hours, pictures will be taken to identify where activity is occurring within the body.

Positron Emission Tomography (PET Scan)

An imaging technique that produces three dimensional images of the body. This test provides information about how the body functions. Your child may need sedation or general anesthesia if they need help to remain still.

Pulmonary Function Tests

Pulmonary Function Tests (PFT's) evaluate how well the lungs work by measuring how much air the lungs can hold and how well your child can blow the air out. Young children may have a difficult time completing this test.

Ultrasound

A test that uses ultrasound waves to provide images of the inside your child's body. Ultrasound does not use radiation.

X-rays

An X-ray takes a picture of your child's bones and organs. It can be used for many reasons.

For more information about diagnostic tests, scans and procedures, please visit:

<http://www.childrenshospital.org/conditions-and-treatments>

Contact Us

For patient care assistance, please call the following phone numbers:

- Jimmy Fund Clinic (617) 632-3270
Business Hours 8 a.m. to 5 p.m., Monday through Friday
- Page Operator (617) 632-3352
Off hours: weekdays after 5 p.m., holidays, and weekends
Page pediatric hematology/oncology fellow on call
- Life Threatening Emergencies dial 911