Medical Tests and Procedures

**YES Initial Laboratory Evaluation:**

- **CBC:** This means Complete Blood Count and evaluates the components of the blood including hemoglobin, hematocrit, white blood count (including the neutrophil count), and platelets.
- **Chemistry:** This measures kidney and liver functions and overall body functions.
- **IGF-1 and IGF-BP3:** Growth hormone evaluation tests
- **TSH (thyroid stimulating hormone) and FT4:** thyroid hormone evaluation
- **Hepatitis panel:** Evaluation for exposure to hepatitis A, B, or C
- **Hepatitis B surface antibody:** evaluates the body’s response to the hepatitis B vaccine
- **Urinalysis:** This evaluates the urine for blood, protein, and other substances that can be helpful in interpreting kidney health.

**Radiology:**

**Plain X-Rays:**
These are pictures of the body which are used in diagnosis and treatment. You/your child must take off all clothes and jewelry and put on a hospital gown. He/she can eat or drink before the test.
- If the parent wishes to be in the room (s)he must also wear a lead apron.
- The x-rays will be “read” by a radiologist who will then give the results to your doctor.
**CT (or CAT) Scan:**
- Computerized Axial Tomography. This special X-ray test uses a scanner to take clear pictures of different parts of the body, such as the brain, lungs and abdomen.
- Before this test, you will have special instructions. Please check with Radiology or the clinic nurse for what they are.
- If you/your child is very young and cannot be still, he/she may need to be sedated or put to sleep with medicine. If so you will have special instructions regarding whether you/your child can eat or drink before the test.
- A nurse may inject (with a shot) some “dye” into you/your child’s vein so that certain parts of the body will show up better. You will need to wait at least 30 minutes. You/your child may feel warm all over, have a funny mouth taste or feel a little sick.
- Then, you/your child **must** lie very still while the pictures are being taken. During the scan you may hear sounds from the scanner machine.
- The parent will usually not be allowed to stay with the child during this test.

**Bone Scan:**
- A bone scan uses an isotope and a scanner to show the make up of the bones. You/your child may eat and drink before this test.
- A nurse will inject with a shot and isotope (dye) into you/your child’s vein or central line. You must wait 2 hours while the isotope collects in the bones.
- After this, you/your child will lie on a table for pictures to be taken. The scanner may be above or below the table and will move over or under you/your child. You/your child **must** be very still while the pictures are taken. The parent may stay with the child during the scan.

**Bone densitometry:**
- This test is also called a DXA (dual x-ray absorptiometry) or DEXA scan. It is completely non-invasive and measures the density of your bones which can be affected by steroids and other chemotherapies. This is test of choice for diagnosing osteoporosis.
- Low dose x-ray of two different energies are used to distinguish between bone and soft tissue, giving a very accurate measurement of bone density at the spine and hip.
MRI:
- Magnetic Resonance Imaging. The MRI uses a large magnet, radio waves and a computer to look at the inside of the body. The MRI shows body organs in great detail and can help find small amounts of disease early. An MRI scan is used to look at tumors located in the brain, nervous system and some body organs.
- You/your child must remove any metal objects such as jewelry and hairpins.
- If you/your child is very young and cannot be still, he/she may need to be sedated (put to sleep). Then you/your child cannot eat or drink for 6 hours before this test.
- A nurse will inject (with a shot) some ‘dye’ into you/your child to make certain the body parts show up better. You/your child should lie down and get comfortable on the scanning table.
- As the scan starts, the table moves into a tunnel which is open on both ends. A giant magnet is around the tunnel you/your child can talk with the technologist using a special speaker during the scan.
- When the scan starts, you/your child must be very still and not move. If he/she moves the test might need to be done again. During the scan you/your child will not hurt but may hear some bumping noises. This test takes 30 to 90 minutes.
- Usually the parent will not be able to stay with the child during this examination.

Ultrasound:
- An ultrasound takes pictures of the inside of the body. This is done by bouncing sound waves off body parts. An ultrasound can show the size, shape and place of organs in the abdomen. It can also help to find some kinds of tumors. An ultrasound does not use X-rays.
- You/your child will not be able to drink “gas containing” liquids like soda pop before the test.
- During this test you/your child must lie still. A clear gel will be put on you/your child’s skin where the test will be done. This may feel cool. A small microphone will be moved over the skin over the place to be looked at. This microphone takes the pictures for the ultrasound. It doesn’t hurt.
- During the test, the pictures can be seen on a TV monitor. The parent may stay with the child and watch. It takes 15 to 30 minutes.
Cardiology:

EKG:
- Electrocardiogram. A test used to check the electric message to the heart.
- No special prep is needed before this test. Small, round patches will be put on you/your child’s arms, legs and chest. This will not hurt. Lines are snapped to the patches. These lines are hooked to the EKG machine.
- While this test is being done, you/your child may hear scratching noises. You/your child must hold still. The EKG takes 10 to 20 minutes. The parent may stay with the child.

ECHO:
- Echocardiogram. An ultrasound test used to see function and parts of the heart.
- No special prep is needed. A clear gel will be put on you/your child’s chest. This may feel cool to him/her.
- A small hand-held microphone is moved around on the chest. This will not hurt. You/your child needs to relax and lie still. The ECHO takes about 20 minutes. The parent may stay with the child.

Pulmonology:

Pulmonary Function Tests:
- You/your child breathe into a mouthpiece that’s connected to an instrument or spirometer. The spirometer records the amount and the rate of air that is breathed in and out over a specified period of time.
- Some of the tests are acquired by normal quiet breathing and others are acquired by forced inhalation and exhalation.
- Pulmonary function tests are generally not ordered on children less than six years of age, because young children are often unable to fully cooperate with the examination.