

Renal Ultrasound

What It Is

In addition to eliminating wastes, the kidneys and urinary tract also regulate many important body functions. The kidneys monitor and maintain the body's balance of water, ensuring that our tissues receive enough water to function properly and be healthy. Every minute, more than one quart of blood goes to the kidneys, and about one-fifth of the blood pumped from the heart goes to the kidneys at any one time.

When a problem develops with the kidneys that other tests have failed to find, a renal ultrasound may be performed. A renal ultrasound is an imaging procedure to examine how blood moves through the kidneys. A technician will spread a clear, water-based conducting gel across the area to be examined and then move a wand, called a transducer, over the area. The wand will send high frequency sound waves. A computer measures how the sound waves bounce and reflect back from the body and send those waves to a computer. The computer changes those sound waves into pictures to be read.

Why It's Done

There are many reasons for performing a renal ultrasound. The test is a less invasive procedure that can show

- how blood flows through the kidney
- how wide the blood vessels are in the kidney
- if there are any blockages or tumors
- if stones are present in the kidney

If your child is experiencing abdominal pain, the test may also show the cause or reveal an enlargement of the kidney.

Preparation

Usually there is no preparation for the renal ultrasound. Your child's doctor may ask that your child not eat or drink anything after midnight the day before the test. Tell the technician about any medications your child may be taking before the test begins.

Procedure

The renal ultrasound will be done in the ultrasound or radiology department. Your child will be asked to change into a cloth gown and lie down on the ultrasound table. The technician will spread a clear, water-based conducting gel across your child's abdomen over the kidney area. This gel helps with the transmission of the sound waves. The technician will move a wand, called a transducer, over the area being tested. The wand will send back sound waves to the computer. The computer changes those sound waves into pictures to be read. The procedure usually takes less than 30 minutes.

What to Expect

The renal ultrasound test is painless. Your child may feel a slight pressure on the abdomen as the wand is moved over the body. The gel may also feel slightly cold and wet. You will need to

instruct your child to lie still during the procedure so that the wand and sound waves can read the area accurately. The technician may ask your child to lie in different positions or hold his or her breath for short periods of time.

Getting the Results

A radiologist will usually read and interpret the ultrasound results and then pass those findings onto your doctor. You and your doctor will meet to go over the results. An abnormal result will depend on the specific area being examined and the test results. If the test results come back abnormal, your doctor will likely order further tests for your child to determine what's causing the problem and how to treat it.

Risks

There are no risks associated with a renal ultrasound. Unlike x-rays, there is no ionizing radiation exposure with this test.

Helping Your Child

The renal ultrasound is painless. However, the machinery used can be a bit scary because of its size. Explaining how the renal ultrasound test will be conducted, and why it is being done, can help reduce some of your child's fear. Allow your child to ask the technician any questions he or she might have. Tell your child to try and relax during the procedure, as tense muscles can make it more difficult to get accurate test results.

If You Have Questions

If you have questions about the renal ultrasound test procedure, contact your doctor. You can also talk to the technician before the exam concerning any questions you may have.

Sources

http://kidshealth.org/parent/general/body_basics/kidneys_urinary.html
http://www.righthealth.com/Health/Renal_ultrasound/