



British Society of GI and Abdominal Radiology

Ultrasound of the Renal Tract

Patient Information Leaflet

Introduction

This leaflet tells you about Ultrasound of the Renal Tract, a test to look at the kidneys and bladder. It explains how the test is done, what to expect, and the risks involved. It is not meant to replace informed discussion between you and your doctor, but can act as a starting point for such a discussion.

What is Ultrasound of the Renal Tract?

Ultrasound is a non-invasive way of way of looking inside your body to help diagnose medical conditions and guide treatment. An ultrasound scanner uses high-frequency sound waves and computers to produce pictures of the organs and other structures inside the body, which can be viewed on a computer monitor. Renal Tract ultrasound is particularly useful to evaluate the kidneys and bladder for causes for blood in the urine, altered kidney function, urinary tract infections or to identify kidney stones.

The ultrasound examination is performed by a Radiologist, who is a doctor specially trained to carry out imaging examinations and to interpret the images. Some ultrasound examinations may be performed by a Sonographer, who is a health professional highly trained to carry out these examinations. The Radiologist or Sonographer uses a hand-held device called a transducer, which is moved across the body surface and transmits the sound waves into your body. These sound waves are reflected back to the transducer from the different structures and tissues inside the body. The returning sound waves are converted by a computer into a moving image of the internal structures of the body, and the images are displayed on a computer screen.

Ultrasound scanning does not use ionizing radiation (x-rays) and is considered a very safe test. For this reason it is often the preferred imaging test in pregnant women and children.

What do I have to do before my Ultrasound?

You will need to arrive with a reasonably full bladder which means drinking approximately 2 pints of water or squash before your arrival. There are no dietary restrictions prior to the examination.

You should continue to take your normal medication.

Where do I go when I arrive at the hospital?

Please report to the reception desk in the Radiology department with your appointment letter 10 minutes before your appointment time. You will be asked to sit in the waiting area until called by a member of staff. A member of the team will explain the test and answer any questions.

You should wear clothing that allows easy access to the area that is being examined. If you have to undress for the procedure, you will be shown to a private cubicle and asked to change into a clean gown. You will be asked to remove all jewellery and metal from the area to be scanned. Your clothes and valuables will be secured in a locker until after the procedure.

Can I bring a relative/friend?

You may bring a relative or friend with you to the appointment and, if you wish, they will usually be able to accompany you in the examination room.

If you need an interpreter please tell us when you receive your appointment so that we can arrange this.

What happens during the Ultrasound scan?

You will be taken into the Ultrasound Scanning Room and asked to lie down on the examination couch. The area to be examined is exposed while the rest of the body is covered. The lighting in the room is usually dimmed in order to see the pictures more clearly.

The Radiologist / sonographer will apply clear gel to your skin before placing the "transducer" (a smooth hand held device) onto this area using gentle pressure. The transducer is moved across the area with a sliding and rotating action and the real-time images are displayed on the computer screen. The Radiologist / sonographer records still pictures from the moving images on the screen.

During the examination you may be asked to perform some simple movements to improve the quality of the imaging. These may include holding your breath or turning into a different position. Occasionally it may be necessary for the Radiologist / sonographer to apply greater pressure with the transducer in order to see or assess deeper structures in the abdomen. However, if any of these manoeuvres cause you concern or discomfort, you should inform the Radiologist / sonographer immediately.

The examination takes approximately 10-15 minutes to perform.

You may empty your bladder as soon as the examination is finished.

In some cases you may be asked to return to the scanning room after emptying your bladder to allow the sonographer to check it has emptied fully. If this is so you will need to lie on the couch again and gel will be reapplied to the bladder area for a final check for any residual urine.

Alternatively your doctor might want a “urine flow rate” done. This means that instead of passing water into the lavatory, you will pass it as normal into a special measuring device. This machine enables the doctor to see the amount passed, the time it takes and the pressure applied. You will then be scanned again after doing so to check for any residual urine.

What happens after the test?

When the examination is finished the gel is wiped off and you will be able to dress and leave immediately.

Are there any risks?

Ultrasound is considered a very safe examination. It is non-invasive and does not use ionizing radiation (X-rays).

Tenderness in the area that has been examined is uncommon and usually resolves within a few hours of the examination.

How do I get my results?

The Radiologist / sonographer who performed the examination will review the images and send a report to your doctor. Your GP or hospital Consultant who referred you for the test will see you to discuss the results.

Any further questions?

We will do our best to make your visit as comfortable and stress free as possible. If you have any further questions, or suggestions for us, please let us know. If you would prefer information and advice in another language, please contact the Radiology department.

Further Information

For general information about Radiology departments, visit The Royal College of Radiologists' website: www.goingfora.com

For health advice or information you can call NHS Direct on 0845 4647 or visit the website: www.nhsdirect.nhs.uk

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