



**UroHealth  
Education Cell**

A cell dedicated to disseminating  
scientifically validated knowledge  
to patients and medical colleagues  
for improving standards of  
UroHealth Care

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# ULTRASOUND

# Ultrasound KUB

(USG - KUB)

All that you need to know



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## What is this test and why do it?

When ultrasound rays are projected onto a human body, some ray pass through while some are reflected back towards the probe. Our different organs and tissues reflect the ultrasound rays in different patterns that are picked up by the transducer probe and a live image is generated. These ultrasound rays are completely harmless, even very safe for a young embryo or foetus inside the uterus!

This technique, popularly called sonography, is very useful for diagnosis of fluid accumulations, tumors, stones and structural anomalies of urinary tract.

## What is done in this test?

- ❑ You will be asked to report with reasonably full urinary bladder. For this, you will be requested to take a few glasses of water about half an hour before the commencement of test.
- ❑ You can appreciate the state of fullness of your urinary bladder by experiencing the increased desire to pass urine.
- ❑ As soon as you are ready, the sonologist will apply some jelly on your flanks and lower abdomen. This is a specialized type of jelly and it facilitates smooth entry of ultrasound waves in your body by eliminating any air in transmission path of rays.
- ❑ As the probe is pressed against your body, you may experience mild discomfort. Please cooperate but if you are really uncomfortable, inform your sonologist.
- ❑ The radiologist may ask you to take a deep breath and hold it for a while. This manoeuvre pushes the kidneys down and they are seen in a much better view.
- ❑ All parts of both the kidneys are sequentially scanned and their images are obtained.
- ❑ The radiologist will also scan your urinary bladder. While he/she does so, the pressure of probe may increase the desire to pass urine. Have patience and your doctor will quickly calculate the amount of urine inside the bladder (pre void capacity) and also see bladder for any structural changes.
- ❑ You will then be asked to go to toilet to pass urine. Please pass urine fully without any undue anxiety about the results of test.
- ❑ Once you have emptied your bladder, the sonologist will repeat the ultrasound scan to calculate the residual urine inside the bladder.
- ❑ Once the study is complete, all the jelly applied on your abdominal skin

will be mopped away.

- ❑ Many USG images are generated with the helps of computer software available in the machine which are subsequently provided to you as print outs.

## What precautions to take before or during the test?

- ❑ Your abdomen should not have excessive gases at the time of study. For this, you should do the following-
- ❑ It is advisable to do the USG with above preparation but in case of emergencies, it may be done even without them.
- ❑ If you have too many hairs on your abdominal skin, they may trap some air and hamper with proper imaging. The doctor may advise you to shave or trim the hair.
- ❑ Do not drink excessive quantity of liquids in a short time. Firstly, you may feel nauseated and secondly, your urinary bladder will get excessively stretched. Once that happens, you may find it difficult to urinate and the results of post void residual urine estimation may get adversely influenced. Some people even develop total inability to urinate and lend up in emergency. *Your urinary bladder need be 'reasonably full' at the time of scanning not 'overflow'.*
- ❑ If you are suffering from renal failure, please inform the doctor. You need not take excessive liquids prior to the scan as you may develop edema over the body and your respiratory difficulty may worsen.
- ❑ For an accurate reading of post void residual urine, it is essential that you are scanned immediately after passing the urine. If you are made to wait, as may happen if somebody else is undergoing the test, your kidneys will form some urine in this 'waiting period' which will be falsely judged as post void residual urine.

## When to report to the doctor?

- ❑ If you start experiencing a greater difficulty in passing urine after the USG evaluation.
- ❑ Minor variations in measurements taken during sonography are normal as they are 'approximate values'. Do not have excessive concern about a mm variation in size of your stone or cyst in kidney or a couple of ml variation in volume of your prostatic or residual urine.
- ❑ Pregnant ladies must not try to find out sex of their baby. It is absolutely illegal and doctor will never reveal it to anybody.