



Kidney and Bladder Tests

Finding and preventing problems with your urinary organs

These tests will help us identify problems you may have with your urinary organs. They look at the size and shape of your organs with ultrasound and X-rays. They also show us the inside of those organs, and tell us about how well they are working for you.

Intravenous Pyelogram (IVP) - Also Called Excretory Urogram (EU)

What is it?

An IVP or EU is a special X-ray of the entire urinary system. This includes the kidneys, ureters (tubes which carry urine from the kidneys to the bladder), and the bladder (or urinary organs).

Why is it done?

This test looks for changes in the insides of your urinary organs. It can check for stones in the urinary organs, and it can help to assess how well your kidneys are working.

How is it done?

1. You will receive a shot of X-ray dye through a vein in your arm. The contrast will travel through the blood to the kidneys. The kidneys then pass the dye on through the ureters to the bladder. Some patients feel slightly "flushed" when the contrast is first injected, but this feeling passes quickly.
2. Next, a series of X-rays will be taken over a 30-minute period. Sometimes a pressure bag will be placed on your stomach to help your kidneys fill up better. The dye in your kidneys, ureters and bladder will make the inside of those organs visible on the X-rays.
3. At the end of the study, you will be asked to empty your bladder (either by urinating or catheterization) to the best of your ability. After you empty your bladder, one more X-ray will be taken.

Your primary care doctor may order “baseline” tests. These are pictures of your organs while they are working fine.

This will give you “normal” pictures to compare with later if you are having a problem.

Preparation

You may eat a **very light** breakfast in the morning of your IVP. After breakfast you may drink clear liquids, but do not eat any more food until after the X-ray. Stool in your colon will make it harder to get a good picture of your urinary organs. You may take a very mild laxative (such as Milk of Magnesia) the day before the test if you tend to be constipated.

Possible Risks

A few people are **allergic to iodine**, which is in the X-ray dye. If you have ever had an allergic reaction to iodine or **shellfish**, you need to tell your health care provider before having the test.

If you get **autonomic dysreflexia** easily, let the technician know if you begin to feel symptoms (such as a sudden headache or sweating).

There is a small amount of radiation with any X-ray. Please tell the people doing the test if you **think you might be or are pregnant**.

Renal and Bladder Ultrasound and KUB (X-Ray of the Kidneys, Ureters and Bladder)

What are they?

A renal ultrasound is a study of the renal system (kidneys, bladder and ureters) using sound waves to create a picture. A KUB is one x-ray of your pelvis and stomach areas. It's done in combination with the ultrasound to give a better picture of all the urinary organs.

Why is it done?

Both the ultrasound and X-ray look for changes in the size and shape of the bladder or kidneys. They can also look for stones in the kidneys, ureters or bladder.

How is it done?

A special ultrasound gel is applied to your stomach and sides. The jelly is a little cold, but that should be your only discomfort. Then an ultrasound probe is moved over the areas. The machine will send sound waves into your body through the probe, and then take pictures of the sound waves bouncing back from your kidneys, ureters and bladder.

Preparation

You must have a **full bladder** for the test. Avoid carbonated drinks such as sodas and seltzer. Do not urinate or catheterize yourself until after the ultrasound test. If you get autonomic dysreflexia easily, take care not to let your bladder fill up too much. Do not go longer than you usually would between emptying your bladder.

Possible Risks

There are no known risks from ultrasound tests. Be sure to tell your health care provider if you think you might be pregnant.

Cysto-Urethrogram (CUG)

What is it?

This test is done to find out if there are any blockages in the bladder or urethra (the tube from the bladder to the outside). It also can help us see if there is any "back-pressure" to the kidneys from the bladder. This is called "reflux."

Why is it done?

Narrowing of the urethra or the bladder openings can cause reflux. If this "back-pressure" is too high, it can damage your kidneys. This test can help us see if the pressure in your bladder is too high.

Questions?

Your questions are important. Call your doctor or health care provider if you have questions or concerns. The UWMC Clinic staff is also available to help at any time.

Rehab Medicine Clinic:
206-598-4295

X-Ray Clinic:
206-598-6200

How is it done?

A catheter is passed into the bladder and the bladder is filled with dye that can be seen by X-ray. When your bladder is fairly full, X-rays are taken from different angles. If you are able, you will be asked to void and an X-ray will be taken as you void.

Preparation

You should have a urine culture one week before the test to make sure that you do not have a bladder infection.

Possible Risks

1. Increased risk of urinary tract infection due to the pressure and the catheterization. Make sure you don't have a bladder infection before you go for this test.
2. Some exposure to X-rays. Be sure to inform your health care provider if you are or think you are pregnant.

Important Reminders

Renal and Bladder Ultrasound: You must have a **full bladder** for the test. Empty your bladder far enough ahead so that you will be full again before the test.

Intravenous Pyelogram: Eat **very lightly** that morning, and make sure you have a bowel movement before the test. If you have had **an allergic reaction to iodine or shellfish**, you need to tell your health care provider before having the test.

Cysto-Urethrogram: You should have a urine culture **1 week before the test**. Make sure you don't have a bladder infection before you go for this test.

X-rays: There is a small amount of radiation with any X-ray. Please tell the people doing the test if you **think you might be or are pregnant**.

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