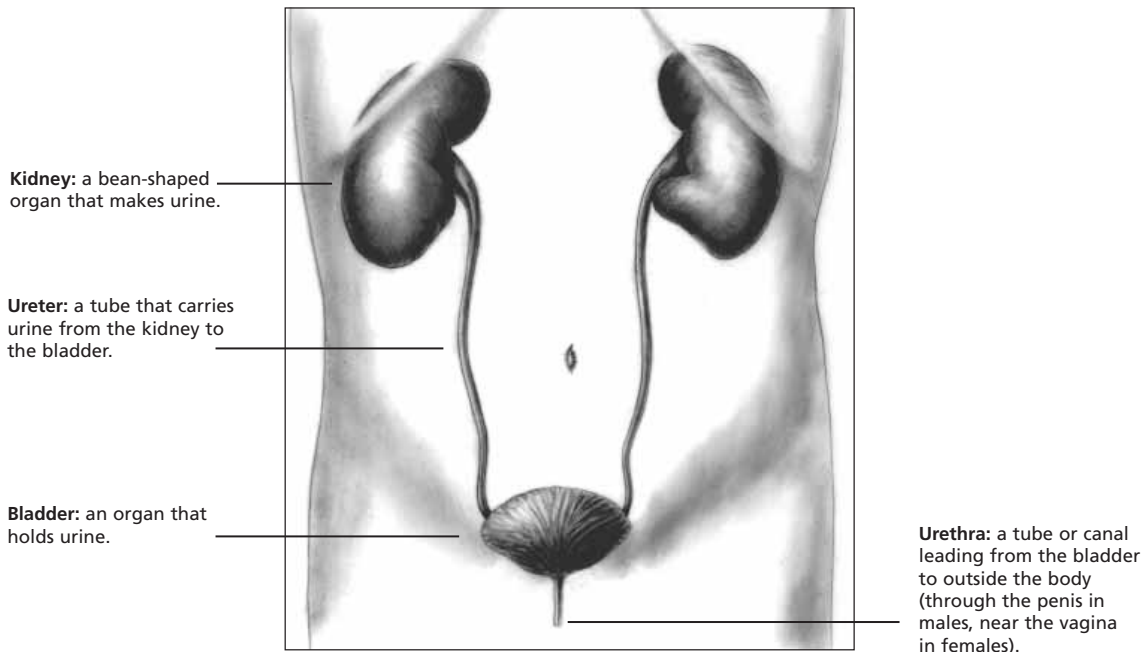


Let's Talk About...

VCUG Examination

Urinary System



Kidney: a bean-shaped organ that makes urine.

Ureter: a tube that carries urine from the kidney to the bladder.

Bladder: an organ that holds urine.

Urethra: a tube or canal leading from the bladder to outside the body (through the penis in males, near the vagina in females).

The VCUG examination is short for a voiding cystourethrogram (Sis-toe-you-reeth-row-gram). VCUG is a test using x-rays to look at the urinary tract.

A VCUG will look at several organs: (see illustration)

Kidneys. The kidneys make urine. They take things out of our blood that we don't need, like toxins and other chemicals. They also regulate how much fluid we have in our bodies. If we need more fluids in our bodies, the kidneys put more fluids back into the bloodstream. If we have too much, the kidneys put more fluid in urine so we can get rid of it.

Ureters. The tubes that drain urine from the kidneys to the bladder.

Bladder. The organ that stores urine.

Urethra. The tube that goes from the bladder to the outside of the body.

Why is it needed?

If your child has a urinary tract infection, your doctor may want to see how bad it is (see *Let's Talk About...Urinary tract infection.*) The child may also have reflux, which is when urine in the bladder backs up the ureters and into the kidneys.

How is a VCUG done?

A small thin tube, called a catheter, is slipped through the urethra and into the bladder. The tube is connected to a bottle of clear liquid that is hanging from a pole. The liquid is a kind of dye called a contrast. A clamp on the tube is released and the contrast moves through the tube and into the bladder. The contrast can be seen by an x-ray. Pictures are taken of the urinary tract.

What happens during the test?

During the first part of the test, your child will change into a hospital gown and go to an x-ray room. An x-ray will be taken of the

stomach to see what the urinary tract looks like without contrast.

After that x-ray is taken, you and your child will go to an x-ray room that is much more private. Your child will lie on the x-ray table stomach up. Girls will place their legs in a frog-leg position, knees bent up and out at the sides so the bottom of the feet are touching each other. Boys will keep their legs straight.

- Sterile napkins will be placed over your child's genital area and legs.
- The genital area will be washed with a brown antibacterial (an-tie-back-TEE-ree-al) soap. Some children say the soap is cold or tickles.
- The catheter is guided up the urethra and into the bladder. A lubricating jelly is used to help the catheter slide in easily. Some children say this feels like a pinch. Your child may feel discomfort at this time. She may feel like she has to go to the bathroom. Counting out loud, pretending to blow out candles or blowing bubbles seems to help ease the sensation.
- A tiny balloon at the end of the catheter is inflated to hold the catheter in place. The other end of the catheter is connected to a bottle of contrast. The bladder is filled with the clear solution. Some children have described the feeling of having a full tummy.
- When the bladder is completely full, three to six pictures are taken with the x-ray machine. The pictures can be seen on a TV monitor.
- A towel or bedpan will be placed underneath to catch urine. The balloon is deflated. The

child is asked to urinate into the towel or bedpan while pictures are being taken.

- The catheter will slide out as your child urinates.
- One more picture is taken after your child finishes urinating. It is called a "post-void" (after urinating) and shows any remaining contrast left in the urinary system. This helps the doctor to see how well your child is emptying her bladder when she goes to the bathroom.

The x-ray room has a private bathroom. Your child can clean up in the bathroom and change into her own clothes.

Are there complications or side effects?

It may sting when your child urinates following the test. This should only last one day. The catheter may irritate the urethra and there may be a little blood in the urine. This is normal following this procedure. This should only last a few days and not get worse. If it does, call your doctor.

There are no side effects from the contrast. During a VCUG, the contrast goes directly into the bladder and comes out during urination. It is not absorbed and does not enter other parts of the body. If the contrast refluxes (goes back up) to the kidney, it will eventually drain back down into the bladder and is urinated out.

What if I have more questions?

Be sure to keep your follow-up appointment. Call your doctor's office at any time if you have questions.



All of the information contained in the *Let's Talk About...series* is for educational purposes only. This educational information is not a substitute for medical advice or for care from a physician or other health care professional. If you have questions about your child's health, contact your health care provider.

Pediatric Education Services
801.662.3500 Rev. 11/03
© Primary Children's Medical Center 2003