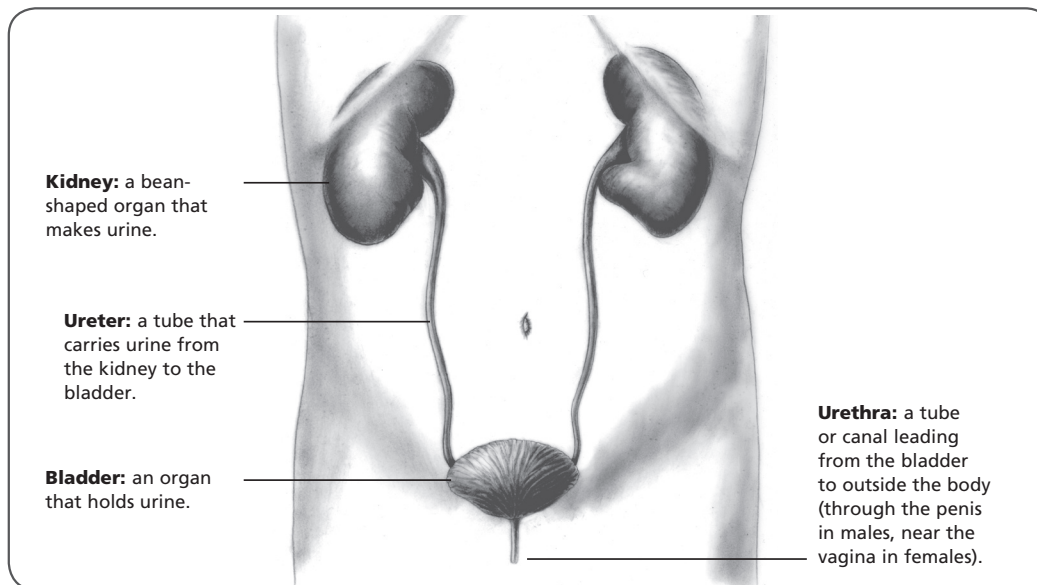


Let's Talk About...

VCUG Examination



Urinary System

VCUG is short for a voiding cystourethrogram (VOY-ding sis-toe-you-REE-throw-gram). A VCUG examination uses X-rays and a special fluid the doctor can see on an X-ray to look at the urinary system. A VCUG will look at several organs: (see illustration)

- **Kidneys.** The kidneys make urine. They take things out of the blood that are not needed, like toxins and other chemicals. They also regulate how much fluid is in the body. If the body needs more fluid, the kidneys put more fluid back into the bloodstream. If the body has too much fluid, the kidneys get rid of the fluid by putting it into the urine.
- **Ureters.** These tubes drain urine from the kidneys to the bladder.
- **Bladder.** This organ stores urine.
- **Urethra.** This tube drains urine from the bladder to the outside of the body.

Why does my child need a VCUG exam?

If your child has a urinary tract infection, your doctor may want to see what is causing it. Your child may also have reflux. This is when urine in the bladder backs up into the ureters and sometimes into the kidneys.

How is a VCUG done?

The Radiology Technologist places a small thin tube, called a catheter, through the urethra and into the bladder. This tube is secured to the leg or penis with a small piece of tape. The tube is connected to a bottle of clear liquid called “contrast” that is hung from a pole. The technologist opens a clamp on the tube and the contrast moves through the tube into the bladder. The technologist takes pictures called X-rays. The contrast can be seen on the X-rays and lets the radiologist doctor see the urinary system.

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. Your child will lie on his back on the X-ray table. When the catheter is placed, girls lie in a frog-leg position, knees bent up and out at the sides so the bottom of the feet are touching each other. Boys keep their legs straight.

- Sterile napkins are placed over your child’s genital area and legs.
- The genital area is washed with a brown antibacterial (an-tee-back-TEER-ee-ahl) soap. Some children say the soap is cold or tickles.

- A catheter is put into the urethra and then into the bladder. A lubricating jelly is used to help the catheter slide in easily.
- The catheter is taped to the inside of your child's leg to hold it in place. The catheter drains urine out of the bladder. Often a syringe is used to gently pull the urine out from the tube. Some children say they feel pulling or a small pinch inside.
- The technologist attaches the end of the catheter to a bottle of clear "contrast" and fills the bladder with the fluid. Some children say it feels like they have a full tummy or need to go to the bathroom.
- When the bladder is completely full, the technologist takes three to six pictures with the X-ray machine. The pictures can be seen on a TV monitor. Your child will lie on her back and turn onto her side at a 45-degree angle for these pictures.
- The technologist will place a towel or bedpan underneath your child's bottom. The tape will be removed which may pull the skin like removing a Band-Aid. Your child will be asked to pee into the towel or bedpan while more X-rays are taken.
- Depending on your child's medical issues, your child may need to have her bladder filled and emptied twice.
- The catheter will slide out as your child pees. Most children say that they do not feel the catheter come out.
- The technologist will take one more picture after your child finishes peeing. This picture shows any contrast left in the urinary system. This helps the doctor to see how well your child empties her bladder when going to the bathroom.
- There is a private bathroom in the X-ray room where your child can clean up 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 your child's urine. This is normal and should only last a few days and not get worse. If it lasts more than a few days or gets worse, call your doctor. There are no side effects from the contrast. During a VCUG, the contrast goes directly into the bladder and comes out with the urine. 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 peed out.

How should I prepare my child?

- To help your child understand what is going to happen, it may help to talk with her at home before the test and tell her what is going to happen.
- Tell your child about the catheter. Some children say the catheter feels like a pinch. Some say it is uncomfortable. Others say it makes them feel like they need to pee. Once the catheter is in, the feeling of needing to pee may continue. Ways to help these feelings go away are: count out loud, pretend to blow out candles or blow bubbles.
- You can help your child stay calm during the procedure by telling her about ways to cope before the VCUG. To help relieve discomfort of feeling like she has to pee during the test, your child may deep breathe, divert her attention to something else, or squeeze someone's hand.

If you would like information on children's emotional response to illness and healthcare, or more information about preparing your child for this exam, please call the Medical Imaging Child Life Specialists at Primary Children's Hospital.

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.