

What about an ultrasound?

Many children also have an ultrasound scheduled prior to a VCUG. An ultrasound is performed with a small camera that the technician holds in his or her hand. Clear "jelly" will be placed on your child's belly, so the ultrasound camera can slide easily and view the kidneys and bladder more clearly. A catheter is not used.



For more information, please contact (585) 275-5268.

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This brochure is a collaborative effort of the Departments of Imaging Sciences, Pediatric Urology and Child Life at Golisano Children's Hospital. We hope it provides you with information to share with your child, or to modify as you wish, with words and terms you feel your child can best understand.

Information for Children Having a Voiding Cystourethrogram (VCUG)

Department of Imaging Sciences



What is a voiding cystourethrogram?

A VCUG is an examination of the bladder and lower urinary tract using a special type of X-ray called fluoroscopy and a contrast agent. The X-ray is virtually non-invasive, and fluoroscopy makes it possible to see internal organs in motion. When your child's bladder is filled and then emptied of a water-soluble contrast material, our radiologists at Golisano Children's Hospital at the University of Rochester Medical Center are able to view and assess the anatomy of the bladder and lower urinary tract.

As a parent, you can help your child prepare for this test and alleviate his or her anxieties.



IF YOU HAVE ANY QUESTIONS after reading this brochure, please consult with your child's physician or call

(585) 275-5268 and ask to speak to one of our radiology nurses.

When might a VCUG be recommended?

This examination is often recommended after a urinary tract infection to check for a condition known as vesicoureteral (VU) reflux. In some children, an abnormality in the ureters, the tubes that carry urine from each kidney to the bladder, allows urine to flow backwards. In mild cases, urine backs up to the lower ureter – in severe cases, it can back up into a swollen kidney. Usually children who have VU reflux are born with this condition.

How to prepare your child.

No special preparation is required for a VCUG, but the following are a few tips to practice at home with your child before coming in for the X-ray:

- Breathing exercises will help make placement of the soft tube (catheter) into the bladder easier. Have your child lie on his or her back and, with knees bent, take a deep breath and let it out slowly. Girls can also practice relaxing their muscles by lying with their heels together and knees out.
- You may also want your child to practice letting out the contrast. While lying down in the bathtub, have your child urinate. (Then clean the tub and continue with bathing.) Practicing ahead may make it easier for your child to empty his or her bladder when asked to do so during the X-ray.



What to expect during the exam.

When you come to the Imaging Sciences Department, your child will be asked to change into a hospital gown. One of our radiologists and/or technicians will then position your child on an X-ray table so that a special camera can take pictures of his or her bladder. The radiologist and/or technician taking the pictures will be able to see him/her on a television-like monitor.

- After taking several X-rays of the bladder, the genital area will be cleaned and a catheter will be inserted through the urethra into the bladder. Once the catheter is in place, water-soluble "contrast" material will be used to fill your child's bladder, and the catheter will be withdrawn. This may make your child feel like he or she needs to urinate.
- The radiologist and/or technician will watch the monitor while the bladder is filling to see if any of the liquid goes backward into one or both ureters. When the bladder is full enough, your child will be asked to empty it while lying on the X-ray table. Several images will be taken during this process – and a final image will be taken when your child has voided completely.

A VCUG typically takes 30 minutes to complete and is relatively painless, although young children may be anxious. Some children may also experience mild discomfort when the catheter is inserted. A parent may be allowed to stay in the room to comfort the child, but will be required to wear a lead apron to prevent radiation exposure. Your child may also bring a small toy or blanket from home to hold during the procedure.