

What is a voiding cystourethrogram (VCUG) and a renal sonogram?

The VCUG is an x-ray procedure that visualizes a full bladder and how it empties. A renal sonogram is an ultrasound procedure that visualizes the kidneys. These individual studies are often, but not necessarily, ordered to be done at the same time.

Common reasons for a VCUG or sonogram:

The most common reason for a VCUG is to evaluate the lower part of the urinary system. The renal sonogram looks at the kidneys, but also studies urine flow into the bladder. When combined, both of these exams may diagnose abnormalities such as reflux, kidney stones, hydronephrosis (urine backup in the kidney) or a mass like structure.

Patient Preparation:

Your doctor's office will need to schedule your exam. Some doctors wish to sedate certain children for the VCUG. This is NOT the best choice for ALL children. We need the child to make a conscious effort to void (urinate). Sedation can interfere with that, possibly causing an inaccurate result, and your Pediatrician will decide what is best for your child. If sedation is

ordered with the VCUG, and a renal sonogram is also ordered, the two exams must be done on separate days.

For renal sonograms, the kidneys need to be hydrated and the bladder full (within reason due to age).

Infants to 1 year: fast 2-4 hours prior to the exam, then drink 2 oz. of water ½ hour before the exam.

1 to 6 years: fast 4-6 hours prior to the exam, then drink 4-8 oz. water ½ hour before the exam.

7 years to teen: fast 8 hours prior to the exam, then drink 16 oz. of water 1 hour before the exam

Teen to adult: fast 8 hours prior to the exam, then drink 32 oz. of water 1 hour before the exam.

What to expect:

VCUG without sedation:

If a renal ultrasound is ordered, the first stop will be radiology. The ultrasound uses a gel lubricant and a wand to look inside the body with sound waves. It is not painful, but may be uncomfortable if the bladder is full. If a VCUG is ordered as well, the next stop will be Pediatrics. A catheter will need to be

placed into the bladder. This may be uncomfortable, but it is a necessary part of the exam. The patient then returns to radiology. Contrast will be placed in the catheter to fill the bladder. X-rays will be taken at different intervals, including a full bladder while the patient is urinating and after emptying the bladder.

VCUG with sedation: (generally pediatric)

If a renal ultrasound is ordered, it will be done without sedation, on a separate day than the VCUG. If a VCUG is ordered for a pediatric patient, the first stop will be our pediatric department. Many things occur there including a patient assessment and catheter insertion. Once the catheter is inserted, the next stop is radiology for the exam.

Risks:

There are few risks with a VCUG. The biggest risk is infection. With the VCUG, there is always a chance of having an allergic reaction to the contrast material. As with other medications, reactions may be in the form of a rash, hives, or rarely, death. There are no risks with the renal ultrasound.

Report/Results:

A Radiologist, a physician experienced in radiology exams, will interpret the images. A report will be available to physicians within 24 hours on routine exams. A signed report with the interpretation will also be sent to the healthcare provider that ordered the test. You may check with your ordering physician for the report.



Radiology Department
740-264-8287
www.trinityhealth.com

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