

Voiding Cystourethrogram (VCUG)



What is a VCUG?

A voiding cystourethrogram (VCUG) is an X-ray of the bladder and the urethra. The X-ray images taken during a VCUG will show how much urine (pee) your child's bladder can hold, their ability to hold and empty urine, and whether the urine moves backward toward the kidneys when peeing (reflux).

Why does my child need a VCUG?

VCUGs are usually done after a bladder or kidney infection, but a doctor can order one for other reasons. Your child's doctor may also request that your child give a pee sample so it can be sent to the lab for testing.

How do we check in for the appointment?

Arrive 30 minutes before your scheduled appointment. Being late can affect other appointments and can delay your appointment.

- Seattle Children's Main Campus, 4800 Sand Point Way NE, Seattle, WA 98105. Use Ocean Parking. Check in at Ocean 6 registration desk.
- Bellevue Clinic and Surgery Center, 1500 116 Ave. NE, Bellevue, WA 98004. Park in the underground parking garage. Check in at 2nd floor registration.
- Upon arrival, females 12 years and older will be asked to provide a urine sample for pregnancy screening.
- If you will be late or have questions about testing, please call Radiology at 206-987-2089.

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To Learn More

- Radiology
206-987-2089
- Ask your child's healthcare provider
- seattlechildrens.org

Free Interpreter Services

- In the hospital, ask your nurse.
- From outside the hospital, call the toll-free Family Interpreting Line, 1-866-583-1527. Tell the interpreter the name or extension you need.

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How is the VCUG done?

We need to place a small, soft, flexible tube (catheter) in your child's bladder to do a VCUG. This is not very pleasant, but we try to provide great care and privacy. It may help your child to have a parent or caregiver there to hold on to. Your child will lie down on the X-ray table. A technologist will clean the opening of your child's urethra (where the pee comes out) with a cleansing solution.

A numbing lidocaine lubricant may be applied, and a small catheter is inserted into the urethra and advanced into the bladder. All urine is drained out. The catheter is then connected to an IV bottle that contains X-ray contrast material. Gravity causes your child's bladder to fill up with the contrast. With the catheter still in place, your child will be asked to pee, which will show how the urine goes through the urinary tract. The technologist will need to position your child on their side for some of the X-rays. A doctor will watch this process with a special device called a fluoroscope while the images are shown on a TV monitor. When the test is over, the catheter is removed.

How long does the test take?

The test takes about 45 minutes. Your child will need to stay still for the exam so that the images come out clearly. This can be hard for children. We use distractions such as toys, books and music, to help your child stay still. The age of your child helps us plan what tools to use. For children under the age of 1, we often use cloth safety straps or small sand bags to keep them from moving. Parents or caregivers who are willing and able may be asked to help hold their child as well.

Radiology offers Child Life services. Child Life Specialists are members of the healthcare team who work directly with your child and family to help reduce anxiety and adjust to the hospital experience. When you call to schedule the exam, tell the scheduler if you are interested in having a Child Life Specialist.

Does the VCUG use radiation?

Yes, your child will be exposed to a small amount of radiation. We understand that radiation dose is a special concern for children. To minimize how much radiation your child is exposed to, we customize the x-rays based on your child's age, weight and area to be examined.

If you have questions about the exam and whether it is needed, please contact the doctor who ordered the VCUG for your child.

Will my child have any pain?

There may be some discomfort when the catheter is put in. We will do all we can to help your child relax and feel more comfortable. The lidocaine lubricant will help reduce the discomfort.

Radiology does not normally give sedation (medicine to calm your child down) for this exam. This is because the medicine can make it hard for your child to pee. Your child needs to pee during the test so that the doctor can see how your child's bladder works. In special cases, we can use sedation if requested by the referring doctor. The sedation we use relaxes your child and may help them not to remember the procedure, but it does not put them to sleep. Because this sedation requires special preparation and a longer recovery time, it is mostly used with kids who have a lot of fear or anxiety about past procedures. If you feel your child needs this sedation, please talk to your primary care (referring) doctor.

What do I do before this procedure?

Breakfast: No special diet is required before the VCUG test. Give your child breakfast as usual, unless another exam (like an IVP) is also being done that requires a special diet.

How do I prepare my child for this test?

1. Talk to your child

- Talk about the steps of the test in simple, honest language. Here are some examples of what you can say:
 - “First, you’ll be lying down on the X-ray table. Above you will be the X-ray machine. The machine is above you but does not touch you...”
 - “They will put a small tube into the place where you pee, and they will take the tube out when the test is over.”
 - “The doctors and nurses will put some clear liquid into the tube so that they can see how your body is working on the TV monitor.”
 - “When you feel like you have to go to the bathroom, you can pee.”
 - Talk to your child about the important job of holding still for the test.
 - Reassure your child that you will be with them during the test.
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2. Practice relaxing

After talking about the steps of the test, practice things your child can do if they feel worried or afraid. Talk about these feelings with your child. Some ideas are: taking deep breaths, imagining a favorite place or making up a story. Some children bring a security item, such as a blanket or stuffed animal, with them.

3. Make a written plan together

Write down the plan with your child. This will help your child feel a sense of control. An example of the plan might be:

Tyler’s plan

- *I want my parent or caregiver right next to me.*
 - *I am going to bring my stuffed bear to hold.*
 - *I would like the person doing the test to tell me what the steps are.*
 - *My job is to hold myself still like a statue.*
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What happens after the test?

We will clean your child with washcloths and towels, and then they can get re-dressed. Your child may return to normal daily activities.

After having a urinary catheter, your child’s urine may look pink the first time they urinate. This is caused by a small amount of blood in the urine. This is normal, but if it lasts longer than 24 hours, or if your child has a hard time peeing, call your child’s primary care doctor.

Give your child extra liquids to drink so that they go to the bathroom more often. This will help with any irritation or burning sensations that can happen after having a catheter.

Other important information

- Please tell the technologist if your child has any allergies or sensitivities to latex products or X-ray contrast material.
 - Although we encourage parents or caregivers to be with their child during the test, siblings are not allowed in the exam room. Please keep this in mind when you plan your visit.
 - Pregnant people cannot be in the exam room. If you are pregnant and want to be with your child, discuss an alternative plan with the technologist ahead of time.
 - The images from your child's radiology procedure are typically reviewed by a radiologist within 24 hours and a report will be sent to the doctor who ordered the test. If you have a clinic or doctor appointment scheduled, the doctor will review the results with you then. If you do not have a visit scheduled, you should call your child's doctor for the results.
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