

Voiding Cystourethrogram (VCUG)

WARWIKI

Patient Information · What to expect before your bladder and urethra X-ray

A voiding cystourethrogram — or “VCUG” — is an X-ray test that takes pictures of your bladder and urethra while your bladder is filled with a special dye and while you urinate. It shows how your bladder fills and empties and helps your care team find problems such as urine flowing backward toward the kidneys, a narrowing, or a leak.

About This Test

Your bladder stores urine, and the urethra is the tube that carries it out of your body. A VCUG fills the bladder with a dye that shows up white on X-ray, then records pictures while you urinate. Because it captures the bladder and urethra *in action*, it can show things a still picture cannot.

Your care team may order a VCUG to:

- See how your bladder fills and empties
- Check whether urine flows backward toward the kidneys (reflux)
- Look at the bladder neck and the urethra during urination
- Find a narrowing, a leak, or a small pouch (diverticulum)
- Check healing after bladder, prostate, or urethral surgery

The test looks at your lower urinary tract — the bladder and urethra. It is a picture that guides your care, not a treatment.

Is It Safe?

Yes. A VCUG is a common, low-risk test. The amount of X-ray used is small, and the dye leaves your body in your urine. The most common issue is a mild urinary tract infection from the catheter — this is why a clean technique is used and an antibiotic is sometimes given. Brief discomfort, mild burning, or a little blood when you urinate afterward are usually minor and pass quickly.

LEARN THE TERMS

Bladder

The organ that stores urine until you are ready to empty it.

Urethra

The tube that carries urine from the bladder out of the body.

Catheter

A thin, soft tube that drains or fills the bladder. The dye can go in through one you already have, or one placed through the urethra for the test.

Suprapubic tube (SPT)

A catheter that drains the bladder through a small opening in the lower belly instead of the urethra. If you have one, it can be used to fill the bladder for the test.

Contrast dye

A liquid that shows up white on X-ray so the bladder and urethra can be seen.

Voiding

Urinating — emptying your bladder. The key pictures are taken while you void.

Reflux

When urine flows backward from the bladder toward the kidneys. A VCUG can show this.

Fluoroscopy

A type of X-ray that shows live, moving pictures as the dye flows.

Post-void image

A picture taken after you urinate, to see how well your bladder emptied.

WILL IT HURT? If you already have a catheter or suprapubic tube, the dye goes through it — nothing new is placed. Otherwise a thin catheter is placed first (brief pressure or stinging). Being asked to urinate during the test is normal. The test takes about 30 minutes.

How to Get Ready (Before Your Test)

There is very little to do to prepare. In most cases:

- If you already have a **urinary catheter or a suprapubic tube**, leave it in place — it will usually be used to fill your bladder, so no new tube is needed.
- You can **eat and drink normally** and take your **usual medicines**, unless your team tells you otherwise.
- You can usually **drive yourself home**, because no sedation is needed for most adults.

Tell your team **ahead of time** if you:

- Have ever had a reaction to X-ray contrast dye or iodine
- Take a blood thinner
- **Could be pregnant** — X-rays are usually avoided during pregnancy
- Have signs of a urine infection (burning, fever, or cloudy, strong-smelling urine) — an active infection may mean the test is rescheduled

You may be asked to give a **urine sample** to check for infection, and you may be given an **antibiotic** to lower the small risk of infection.

What Happens During the Test

- 1 You lie on an X-ray table.
- 2 **The dye is placed into your bladder.** If you already have a **suprapubic tube** or **urethral catheter**, it goes through that — **nothing new is placed**. If not, a thin catheter is passed through the urethra.
- 3 Your bladder is slowly filled with dye through the tube. You will feel growing fullness, like needing to urinate. Pictures are taken as it fills.
- 4 When your bladder is full, you will be asked to **urinate while the X-ray records** — the most important part of the test. A catheter is usually removed first; a suprapubic tube may be briefly capped.
- 5 A final picture may be taken after you empty, to see how well your bladder emptied.

After the Test

- You can usually go home and return to **normal activities right away**.
- You may have **mild burning** when you urinate, or a little **blood or pink tinge**, for a day or so — drinking extra water helps.
- If you have a **catheter or suprapubic tube**, your team will tell you how to care for it. The dye clears in your urine over a few hours.

Call your care team or seek care if you have:

- A fever or chills
- Trouble urinating, or you cannot urinate at all
- Heavy bleeding, or bleeding that will not stop
- Pain that gets worse instead of better

THREE THINGS TO REMEMBER

1. A VCUG is a safe X-ray that fills your bladder with dye and films it while you urinate — it shows how your bladder and urethra work and finds problems like backflow toward the kidneys.
2. Little to prepare: eat, drink, and take your usual medicines — but tell your team about any dye allergy, blood thinners, a chance of pregnancy, or signs of a urine infection.
3. The dye goes in through a tube you already have (catheter or suprapubic tube) or a thin one placed for the test; then you urinate while it is filmed. Mild burning or a little blood for a day is normal — drink extra water, and call for fever, heavy bleeding, or trouble urinating.