PROCEDURE

Cystoscopy

Cystoscopy uses a thin viewing instrument to examine the urethra and bladder

PURPOSE
Examine or treat problems inside the urethra and bladder

PROCEDURE TYPE
Diagnostic and therapeutic, minimally invasive endoscopic procedure

WHERE IT IS DONE
Outpatient clinic, endoscopy suite, or operating theatre

ANAESTHESIA
Local for flexible; general often for rigid or treatment

HOW LONG IT TAKES
Usually 5-30 minutes; treatment may take longer

PREPARATION
Usually no fasting; fasting and escort if sedation planned

RECOVERY
Same day; no driving after sedation or general anaesthesia

MAIN RISKS
Urinary infection, bleeding, retention, urethral or bladder injury

RESULTS
Visual findings immediately; biopsy results in days to weeks

Overview

Cystoscopy examines the inside of the urethra and bladder. The urethra is the tube that carries urine out of the body.

A clinician passes a thin instrument called a cystoscope through the urethra into the bladder. A light and camera allow the bladder lining to be examined, while sterile fluid gently expands the bladder.

A flexible cystoscope is often used for examination under local anaesthetic. A rigid cystoscope allows larger instruments to pass through it and is commonly used for biopsies or treatment under general or regional anaesthesia.

Cystoscopy does not use radiation. The clinician may examine the bladder, treat a problem, or do both during the same procedure.

Why the procedure is performed

Cystoscopy may be recommended to investigate:

It is also used to monitor people previously treated for bladder tumours.

During cystoscopy, the clinician can take a biopsy for laboratory testing. Depending on the procedure, they may also remove a stone or ureteric stent, treat a small growth, stretch a narrowed area, or control bleeding.

- Blood in the urine
- Repeated urinary infections
- Painful urination or persistent urinary symptoms
- Difficulty passing urine or emptying the bladder
- Abnormal urine test or imaging results
- Suspected urethral narrowing
- Bladder stones, growths, or inflammation

Who should and should not have it

Cystoscopy may be suitable when directly viewing the bladder could answer an important question or guide treatment. Your team should explain why it is recommended and whether treatment may be performed.

The procedure may need to be delayed if you have an active urinary infection, especially if you have a fever or feel unwell.

Tell the team if you:

Blood thinners like warfarin or apixaban do not always need to be stopped for flexible cystoscopy, but biopsy or treatment can increase bleeding risk. Do not stop any medicine unless your treating team specifically instructs you to.

Severe urethral narrowing or a condition that makes anaesthesia unsafe may change the timing, technique, or choice of test.

- Take anticoagulant or antiplatelet medicines
- Have a bleeding disorder
- Have allergies to medicines, antiseptics, latex, or anaesthetics

- Could be pregnant
- Have previously had problems with anaesthesia
- Have an artificial heart valve or implanted medical device

How to prepare

Follow your facility's instructions because preparation depends on the type of cystoscopy and anaesthesia planned.

For flexible cystoscopy under local anaesthetic, you can usually eat and drink normally. You may need to provide a urine sample to check for infection.

If you are having sedation or general anaesthesia, follow the fasting instructions carefully. Arrange for a responsible adult to take you home and, if requested, stay with you afterward.

Bring an up-to-date medicine list. Ask for specific instructions about diabetes medicines and blood thinners rather than changing them yourself. You may be asked to empty your bladder before the procedure.

What happens during the procedure

You will lie on an examination table, and the area around the urethral opening will be cleaned.

For flexible cystoscopy, anaesthetic gel is placed in the urethra to numb and lubricate it. You are usually awake and may feel brief stinging or pressure.

For rigid cystoscopy, you may receive general anaesthesia, which makes you unconscious, or regional anaesthesia, which numbs your lower body. Your breathing, heart rate, and blood pressure are monitored.

The cystoscope is guided into the bladder. Sterile fluid expands the bladder so the lining can be inspected, which may cause pressure or an urge to urinate. Small instruments can be passed through the cystoscope for biopsy or treatment.

The cystoscope is then removed. A urinary catheter may be left temporarily if there is swelling, bleeding, or concern about passing urine.

Recovery and what to expect afterward

Pain: Mild burning during urination, bladder discomfort, and a small amount of pink urine can

occur, particularly after biopsy. Use pain relief as directed.

Eating and drinking: You can usually eat normally once fully awake. Drinking water may help unless you have been told to restrict fluids.

Activity: Gentle activity is usually possible the same day after flexible cystoscopy. Avoid strenuous exercise, heavy lifting, and sexual activity for as long as your team advises, especially after biopsy or treatment.

Driving: Do not drive after sedation or general anaesthesia until the facility's restriction has passed. After local anaesthetic, drive only if you feel comfortable and can control the vehicle safely.

Work: Many people return to work the next day after flexible cystoscopy. Recovery may take longer after anaesthesia, biopsy, or treatment.

Risks and possible complications

Temporary burning, urgency, and light bleeding can occur. Other possible complications include:

Risk depends on the type of cystoscopy, whether tissue is removed, and your general health. Your clinician should discuss the risks relevant to your procedure.

- Urinary tract infection
- Heavier or prolonged bleeding
- Difficulty passing urine
- Injury or scarring of the urethra
- Bladder injury
- A reaction to anaesthesia or another medicine

Results and follow up

The clinician can often explain the visual findings soon afterward. If you had sedation or general anaesthesia, having someone present may help because these medicines can temporarily affect memory.

Biopsy results usually take several days to a few weeks. Ask when and how you will receive them and whom to contact if they do not arrive.

Follow-up may include a clinic visit, urine or imaging tests, treatment, or repeat cystoscopy. A

normal cystoscopy means no visible problem was found in the examined areas, but it does not exclude every cause of urinary symptoms.

Alternatives

There is no exact substitute when the bladder lining must be viewed directly or a biopsy is needed. Alternatives depend on why cystoscopy was recommended.

Ultrasound can show the kidneys, bladder, retained urine, and some stones or growths, but it may miss small or flat abnormalities and cannot take a biopsy.

CT or MRI can show stones, masses, or problems elsewhere in the urinary tract but cannot directly inspect the lining or collect tissue. CT uses radiation.

Urine cytology checks urine for abnormal cells but may miss some cancers and cannot locate an abnormality. Urine-flow and urodynamic tests assess bladder function but do not replace direct inspection.

Monitoring symptoms may sometimes be reasonable, but it can delay diagnosis or treatment. Ask what could be gained or missed by waiting.

When to call your healthcare team

Contact your healthcare team promptly if you develop:

Seek urgent medical help if you cannot pass urine, have severe or rapidly worsening pain, or have heavy bleeding. Call emergency services for trouble breathing, fainting, chest pain, or signs of a severe allergic reaction after anaesthesia or medication.

Mild burning and lightly blood-stained urine for a short time may be expected. Follow your discharge instructions about how long these effects should last.

- Fever, chills, or feel generally unwell
- Urinary symptoms that worsen instead of improving
- Increasing lower abdominal or back pain
- Bleeding that continues, becomes heavier, or includes clots
- Difficulty passing urine

Common questions

Will I be asleep?

Usually not for flexible cystoscopy, which commonly uses local anaesthetic gel. Rigid cystoscopy, biopsy, or treatment is more likely to require general or regional anaesthesia.

Can I drive home?

Do not drive after sedation or general anaesthesia. After local anaesthetic alone, follow the facility's advice and drive only if you can do so safely.

How painful is cystoscopy?

You may feel stinging, pressure, or an urge to urinate. Flexible cystoscopy is usually brief, while treatment procedures generally use stronger anaesthesia.

When will I know the results?

Visual findings are usually available shortly afterward. Biopsy results take several days to a few weeks.

Can I urinate normally afterward?

Most people can, although temporary burning or urgency is common. Contact your team if you struggle to urinate; seek urgent help if you cannot pass urine.

Can cystoscopy find bladder cancer?

It can identify abnormal-looking areas, but a biopsy is usually needed for a definite diagnosis.

Sources

- National Institute of Diabetes and Digestive and Kidney Diseases. Cystoscopy and Ureteroscopy
- NHS. Cystoscopy
- British Association of Urological Surgeons. Flexible cystoscopy patient information
- British Association of Urological Surgeons. Rigid cystoscopy patient information
- Mayo Clinic. Cystoscopy