

Flexible Cystoscopy

Patient Information

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INTRODUCTION

The urinary bladder is the organ in which urine is stored before clearance. Urine enters the bladder via the ureters (the tubes that connect the kidneys to the bladder), and leaves the bladder via the urethra – the tube that carries urine out of the body^[1].

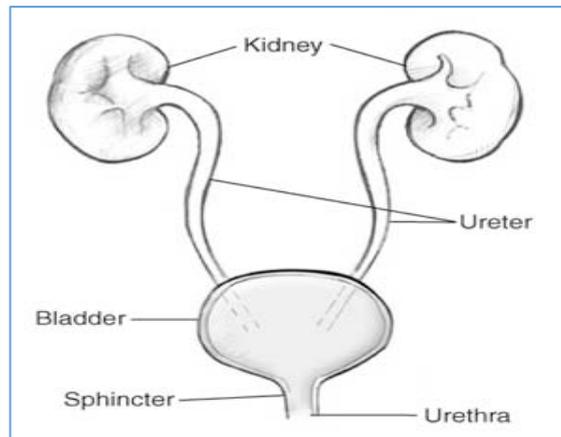


Figure 1. Urine is produced in the kidneys and passes into the bladder through the ureters. The urethra then carries urine out from the bladder (image from NIDDK, 2012).

Flexible cystoscopy is a medical procedure that is used to visually examine the inner lining of the bladder and the urethra^[3]. During the procedure a thin, flexible fibre-optic tube with a light and telescope (flexible cystoscope) is gently placed into the urethra and passed into the bladder^[4].

The surgeon performing the procedure will then carefully investigate the bladder walls, the ureteric orifices (where the ureters enter the bladder) and the bladder neck (the area that drains into the urethra). As the flexible cystoscope is withdrawn, the urethra is examined^[5].

Why do I need a flexible cystoscopy? Flexible cystoscopy is used to investigate the urinary system if you have symptoms that suggest a problem with your bladder. By inspecting the bladder lining,

SYMPTOMS INVESTIGATED	CONDITIONS INVESTIGATED/MONITORED
Blood in the urine (haematuria)	Recurrent bladder infections (cystitis)
Inability to pass urine (retention)	Follow-up of bladder tumours
Involuntary urination (incontinence)	Abnormal growths
Pain or difficulty passing urine	Narrowing/blockage of urethra (urethral stricture)

the surgeon may be able to detect and monitor conditions that affect the bladder, urethra and prostate^[5, 6, 7].

Table 1. Symptoms and conditions investigated using flexible cystoscopy^[5,8,9].

The flexible cystoscope can also be used during medical procedures to guide the insertion of urethral catheters and the removal of JJ ureteric stents^[5].

What happens before the procedure?

As the flexible cystoscopy is performed under local anaesthetic, you can eat or drink normally before your appointment.

At the hospital, a nurse will go over the procedure with you and address any questions or concerns you may have. The nurse will then need to know about any allergies you have, any medication you are on (including over the counter and herbal medicines) and give you an identification wristband.

It is important to mention at this stage if you are taking aspirin, warfarin or ibuprofen as they increase the risk of excessive bleeding during flexible cystoscopy^[10].

Your nose and throat may be swabbed to check if you are carrying MRSA^[11]. Please tell the nurse if you are currently being treated for a urinary tract infection (UTI), as it is a potential risk factor in developing post-procedure septicaemia (actively multiplying bacteria in the blood) if not addressed properly^[5].

You will be asked to empty your bladder by passing urine and a surgery gown will be provided to change into^[10,11]. It is advised that you bring a dressing gown to wear over the surgical gown as you wait for the procedure.

Do I need antibiotics before the procedure?

There are no guidelines that suggest antibiotics are necessary before the procedure^[5]. If you are at an increased risk of developing a urinary tract infection (UTI) after the procedure, you may be given an antibiotic tablet beforehand to reduce that risk^[11]. Be sure to mention any allergies to reduce the risk of having an adverse reaction.

What are the benefits of the procedure?

Flexible cystoscopy is very reliable in diagnosing conditions that affect the urinary system. As the tube is flexible, it is more comfortable than

rigid cystoscopes and can be used under local anaesthetic. Using local anaesthetic reduces your recovery time, often allowing you to go home after the procedure^[5,8].

What are the limitations of the procedure?

Flexible cystoscopy uses a thinner tube than rigid cystoscopy – as such, the image quality is not as good. The tube can only hold small forceps making it less useful in obtaining tissue samples for biopsies^[8].

How is a flexible cystoscopy performed?

Once in the surgical theatre, you will be given the opportunity to ask the surgeon about any further concerns or questions you may have. You will then have to sign a consent form to show you understand the procedure, the need for it and that you want to proceed^[11].

As the procedure involves examination of a sensitive area of the body, the staff will do their utmost to make you feel relaxed and comfortable. For easy access to the urethra, females will be asked to bend their knees and open their thighs and males will be asked to lie flat on their back^[8].

The genitalia will be cleaned thoroughly and the area will be covered to prevent introduction of an infection. As it is a fairly short procedure, you will be awake the whole time^[7]. A local anaesthetic gel is inserted into your urethra to numb it and lubricate it to make the procedure more comfortable^[10,11]. The anaesthetic gel may sting initially at first, but this will subside.

The flexible cystoscope will be gently inserted into your bladder through the urethra. The surgeon will fill your bladder with sterile water through the flexible cystoscope to expand the bladder walls (normally collapsed when empty) and this will make you feel the urge to urinate^[11].

The surgeon will use the live images of your bladder to carefully inspect the walls, ureteric orifices and bladder neck for anything abnormal^[5]. A tissue sample of the bladder lining (biopsy) may be taken for laboratory examination^[6].

As the flexible cystoscope is gently withdrawn, the surgeon will inspect the prostate for enlargement and the lining of the urethra for narrowing, growths and other abnormalities^[5].

The procedure should take no more than 10 minutes and there will be a nurse with you at all times^[10,11].

Will it be painful?

In flexible cystoscopy, the urethra is numbed by local anaesthetic gel. It is unlikely you will feel severe pain but you may feel discomfort as the flexible cystoscope is passed along the urethra^[4].

In patients under 30 years of age, there may be more discomfort as the urethra is more sensitive. There is also increased discomfort in men as the urethra is longer and shaped as an 'S'.

Why can't I have general/spinal anaesthetic?

General/spinal anaesthetic is reserved for rigid cystoscopy as it is more painful and lasts longer. Using local anaesthetic ensures that once the procedure is completed you are able to go home after a short rest. General/spinal anaesthetic may make you more comfortable, but lasts too long and increases your hospital stay.

Can I watch the procedure on the screen?

Yes you can. The screen will be set up to allow the surgeon to get the best view but you are more than welcome to observe if you wish. It has been found that on average, patients who view their own procedure on the screen feel less pain^[12].

When will I get my results?

After the flexible cystoscopy, the surgeon will present any findings and advise you if a further appointment is needed. If a biopsy was taken, the results of the investigation will not be available for a few weeks^[10,11].

What should I expect after the procedure?

You will be allowed to go to the toilet and pass the sterile water that was used to expand your bladder^[6]. You will then be taken back to the changing room where you can dress yourself.

What are the complications and side effects?

Flexible cystoscopy is relatively safe and complications are unlikely^[5,7]. The likely side effects after the procedure are:

- Pain and/or burning when passing urine (dysuria)
- Light bleeding when passing urine (haematuria)

These side effects often recover spontaneously soon after and you are encouraged to increase your fluid intake after the procedure to help reduce the symptoms^[5,13].

The surgeon will always use sterile equipment, but there is a rare chance of developing a bladder infection (cystitis) or a UTI^[5]. This would be noticed as fever, pain in your lower back, prolonged stinging while passing urine, foul smelling urine and the urine appearing cloudy^[7,14].

If the symptoms last longer than a few days or if you develop fever or chills, consult your GP immediately or call the hospital staff for advice^[5,13].

If you find you are unable to pass urine following the procedure, it is likely that you have a swollen urethra^[14]. This may require the temporary insertion of a catheter (hollow tube) into your bladder, through your urethra, to drain urine^[11,14].

What are my alternatives?

The flexible cystoscopy will allow the surgeon to have a close look at the lining of the urethra and bladder. The lining is not normally seen on x-rays and an ultrasound scan is less sensitive than flexible cystoscopy^[7]. You may require a rigid cystoscopy (less flexible and larger tube) in some circumstances – but this will always be under general anaesthetic^[11].

Will I be allowed to drive after the procedure?

It is recommended that you take sensible precautions and minimise any strenuous activity until 24 hours after your appointment. If you are not comfortable, avoid driving and operating heavy machinery^[13].

Key points to remember:

1. Informed consent must be provided.
2. Identification wristband must be worn at all times in the hospital.
3. Further information is available from the nurse and surgeon.
4. The staff will do their best to comfort you and ensure you there is nothing to be embarrassed about in the procedure.
5. Rest for 24 hours after the procedure. Contact your GP if side-effects persist for longer than a few days.

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