



Manchester  
Urology

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## **Ureteroscopy**

*(and treatment of kidney stones)*

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**An Information Leaflet** *(Written May 2008)*

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## What is a ureteroscopy?

Ureteroscopy is an examination using either a flexible (able to bend) or rigid endoscope (a thin viewing instrument, similar to a telescope) that is passed up through the urethra (tube you pass urine through), the bladder and then directly into the ureter (tube between the kidney and bladder) and up to the kidney, as necessary.

A catheter (temporary drainage tube inserted into the bladder via the urethra) may be required to accurately measure urine output after the operation.

The examination is usually performed under a general anaesthetic (when you are put completely to sleep) as a day case procedure (when you are able to go home the same day) or with one overnight stay.

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## What are the benefits?

- Flexible ureteroscopy allows entry into all parts of the kidney.
- The procedure is useful in the diagnosis of abnormalities/disorders of the kidney or ureter.
- It enables treatment of certain kidney disorders, for example kidney stones, by allowing delivery of special instruments or lasers to break up the stones.

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## Are there any risks involved?

- If you have had a general anaesthetic; you may feel normal soon after you wake, but you will be drowsy and your reactions sluggish for twenty four to forty eight hours. It is important that in the first day of having had a general anaesthetic you should try to avoid:
  - Being left in the house alone, or looking after young children
  - Driving (it is advisable to check with your insurance company as to how long your insurance is invalid following a general anaesthetic)

- Operating machinery; this includes cookers and other domestic appliances.
- Making any important decisions or sign any legal documents
- Drinking alcohol

- *Bleeding.* It is usual to see blood when you pass urine after the procedure. This should subside within 5 days.
- *Abdominal or back discomfort.*
- *Urine Infection.* It is normal to have some discomfort on passing urine immediately after the procedure. If this lasts for more than 1 to 2 days or if you feel feverish and/or generally unwell, you may have an infection requiring antibiotics.
- *Catheter removal.* The catheter may be removed a few hours after the operation and the nurses on the ward will want to ensure that you are able to pass urine effectively before you are allowed home. If you have any difficulty passing urine after the catheter's removal, it may be re-inserted and left in place until the day after the operation. You will usually still be allowed to go home the same day, but will be required to attend a clinic at your local Urology department for another trial without the catheter.
- *Perforation of the ureter.* Usually a JJ stent (a special tube left in the ureter between the kidney and bladder) is required for a few weeks after such an injury.
- *Damage to the ureter, resulting in a stricture (narrowing of the ureter).* This is rare and may require stretching by a balloon-type instrument and insertion of a JJ stent.
- *Detachment (avulsion) of the ureter from the kidney.* This is very rare but is sometimes unavoidable and may require open surgery to repair.

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## What happens to me when I arrive at the ward?

You will be met by the nursing staff who will be looking after you. An anaesthetist will visit you to talk to you about your anaesthetic and any risks involved.



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### On the day of the procedure

You should have nothing to eat or drink for several hours before the operation.

Before going to the operating theatre, you will be asked to change into a theatre gown.

All make-up, nail varnish, jewellery (except your wedding ring), dentures and contact lenses must be removed.

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### What happens after the procedure?

On return to the ward, you will be required to stay in bed for the first couple of hours until the effects of the anaesthetic have worn off. You may eat and drink when you feel ready to do so.

You should be able to go home, either that same evening or the day after, depending on when you are well enough and whether or not you are able to pass urine adequately.

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### Discharge Arrangements

It is necessary to arrange for a responsible adult to collect you from hospital and transport you home.

You will be told of any further follow-up or treatment required before going home and any necessary appointments will be sent to you via a letter to your home address.

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### Day to day living

You should be able to return to normal activities the day after discharge, but should rest if you feel the need to.

Other Treatments Or Procedures Which May Be Performed At The Time Of Your Ureteroscopy

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### Fragmentation of stone in kidney or ureter

Stones located at almost any position in the ureter and kidney can be treated via the ureteroscope. The ureteroscope is passed into the ureter and under direct vision is guided to the level of the stone.

Smaller stones may be removed with forceps or by using an instrument with “a basket” that grabs the stone, and are usually able to be removed in one piece.

Larger stones usually need to be fragmented (broken into tiny pieces) to allow them to be removed from the kidney or ureter. Fragmentation may be done using a laser or mechanical form of equipment which breaks the stone into smaller pieces that can then be passed out of the body in the urine.

In most cases a JJ stent is temporarily left in place following any of these treatments, to ensure that the ureter remains open for drainage of urine after the procedure (JJ stents have many perforations to allow the urine to drain from the kidney down the ureter to the bladder).

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### What are the benefits of these treatments?

Smaller kidney stones will usually pass spontaneously, although this may cause pain, nausea, vomiting and/or infection. They can also cause obstruction, which can lead to kidney damage. If the stones are unable to pass naturally or you have experienced any of the symptoms mentioned, surgical extraction of the stone may be required.

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### Are there any risks involved?

The risks are the same as those listed for ureteroscopy.

*Additional potential risks include:*

- *Swelling of the ureter.* This can obstruct the flow of urine from the kidney to the bladder and is treated by insertion of a JJ stent.



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- *Further treatment may be required.* In some cases a second or third procedure is required to treat the kidney or ureteric stone, as complete removal has not been achieved. This further treatment may be in the form of an open operation.
  - *Difficult access to the stone.* It may not be possible to reach the stone on the first attempt with the ureteroscope because of severe swelling that occurs when a stone is present in the ureter. In this situation, a JJ stent may be placed in the ureter to enable urine to drain from the kidney to the bladder and to widen the ureter. As it becomes wider, it is easier to pass the ureteroscope up to the stone and remove it.
  - *Difficulty passing urine.* Occasionally a catheter (a tube passed through the urethra into the bladder to drain urine) may be required for a short period of time, to ensure complete emptying of the bladder. It is usually removed the day after the operation and you are able to go home when you are passing urine effectively.

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## What Are The Alternatives?

*Other treatment options include:*

- *Lithotripsy (ESWL).* This is an outpatient procedure using shockwave treatment to break up the stone, to allow small fragments to be passed spontaneously over the next few days to weeks following the procedure.
- *Percutaneous nephrolithotomy (PCNL).* This involves making a small incision in the back of the abdomen and then passing a tube through the skin into the kidney. The stone is then broken up into smaller fragments and removed.
- *Laparoscopic or open surgery.* This involves making several incisions in the abdomen or one larger incision, usually on the side of the affected kidney. These procedures would require a longer hospital stay and are usually performed after all other therapies have failed.

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## On the day of the procedure

All admission procedures would be the same as for a ureteroscopy.

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## Discharge arrangements

It is necessary to arrange for a responsible adult to collect you from hospital and transport you home.

At some point after the procedure, an x-ray may be required to determine whether or not the stone is still present.

The JJ stent will need to be removed in your local urology outpatient department. This is usually performed a few weeks' following the procedure, under a local anaesthetic (numbing gel).

You will be notified of any further follow-up or treatment required before going home and any necessary appointments will be sent to you via a letter to your home address.

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## Day to day living

These instructions would be the same as for ureteroscopy, although the JJ stent may cause continued irritation until its removal.

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## If there is a problem?

If you experience any problems following the procedure, please contact your GP or your local urology department for advice.



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For further information or to arrange an appointment with a consultant, please call: 0800 656 9616

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**Adebanji A.B. Adeyoju**

Alexandra Hospital  
Mill Lane, Cheadle, Cheshire SK8 2PX  
Ryley Mount  
432 Buxton Road, Hazel Grove, Stockport SK2 7JQ  
[a.adeyoju@manchesterurology.org.uk](mailto:a.adeyoju@manchesterurology.org.uk)

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**Gerald Collins**

Alexandra Hospital  
Mill Lane, Cheadle, Cheshire SK8 2PX  
Spire Regency Hospital  
West Street, Macclesfield, Cheshire SK11 8DW  
[g.collins@manchesterurology.org.uk](mailto:g.collins@manchesterurology.org.uk)

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**Richard Brough**

Alexandra Hospital  
Mill Lane, Cheadle, Cheshire SK8 2PX  
Highfield House  
442 Buxton Road, Stockport SK2 7JB  
Spire Regency Hospital  
West Street, Macclesfield, Cheshire SK11 8DW  
[r.brough@manchesterurology.org.uk](mailto:r.brough@manchesterurology.org.uk)

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**Neil Oakley**

Alexandra Hospital  
Mill Lane, Cheadle, Cheshire SK8 2PX  
Thornbury Hospital  
312 Fullwood Road, Sheffield  
S10 3BR (South Yorkshire)  
[n.oakley@manchesterurology.org.uk](mailto:n.oakley@manchesterurology.org.uk)

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**Stephen Brown**

Alexandra Hospital  
Mill Lane, Cheadle, Cheshire SK8 2PX  
Ryley Mount  
432 Buxton Road, Hazel Grove, Stockport SK2 7JQ  
[s.brown@manchesterurology.org.uk](mailto:s.brown@manchesterurology.org.uk)

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**Patrick O'Reilly**

Highfield House  
442 Buxton Road, Stockport SK2 7JB  
[p.oreilly@manchesterurology.org.uk](mailto:p.oreilly@manchesterurology.org.uk)