Cystoscopy

What is it?
A surgical procedure to look inside the bladder with a telescope.

Background
The bladder is a stretchable muscle bag, which acts as the storage container for urine. The urine made by the kidney, passes down a connecting pipe (ureter), to be stored in the bladder until an appropriate time to void (wee). The urine then passes out of the bladder through the urethra.

A small telescope can be placed through the urethra and allow the urologist to examine the inside of the bladder. In children, this is usually done under general anaesthesia

Who?
Children may need a cystoscopy if they have blood in their urine, infections of the bladder, or difficulty with urine flow or bladder control. The procedure is also done to further assess the anatomy of the upper tracts (ureters and kidney collecting systems).

What are the alternatives?
A cystoscopy is recommended because it is the simplest and most effective way for the doctor to see into the urinary tract. Some information can be gained from X-rays or ultrasounds.

An X-ray (MCU) with contrast instilled into the bladder through a tube gives some information about the shape of the bladder, urinary reflux and whether there is blockage of the urethra (valves).

An ultrasound can look at the shape of the kidneys, the collecting systems and the bladder. It is a non-invasive test with no radiation.

A cystoscopy provides some different information to both X-ray and ultrasound. It may also provide the opportunity for treatment as well as diagnosis in some situations. X-rays and ultrasounds may well be done for additional information.

How?
The procedure is performed as day-only surgery under general anaesthesia. A dose of antibiotics is often given to reduce the chance of urinary tract infection caused by the procedure.

The inside of the bladder will be inspected by a small fibreoptic telescope. The sites of the ureteric openings are identified and the urethra is inspected.

Additional procedures may be performed, depending on the reason your child is having the procedure. These will be discussed with you before the procedure and may include:

- Retrograde pyelogram: contrast injected up one or both ureters and an X-ray taken
- Ureteric stenting: A stent can be passed up or removed from a ureter
- Injections into the bladder, such as Botox
- Stone removal
- Treatment of urethral pathology such as blockage (obstruction) from a valve or stricture
- Biopsies of the bladder if there are areas of concern requiring microscopic examination

The child will wake quickly after the procedure and may eat and drink once recovered. They will usually go home on the same day, if well.

Pain relief with paracetamol or nurofen may be needed after the procedure. The child may have some stinging when they pass urine, and there may also be a small amount of blood in the urine. This is temporary.
What are the complications?

Like any operation, bleeding and infection are the most frequent complications to occur, and these occur uncommonly.

Bleeding is usually mild and self-limiting and presents with some blood in the urine.

Infection may occur, with symptoms developing tow-to-three days after the cystoscopy. Symptoms of this include fever, dysuria (pain with voiding), frequency (needing to void often) or urgency. If any of these symptoms occur, please seek medical attention for treatment.

Complications specific to cystoscopy:

Because cystoscopy involves the introduction of the telescope to the urinary tract, it may cause damage to the urinary tract. This includes urethral injury, bladder injury, and ureteral injuries (if these were examined). These injuries are extremely rare.

What is the follow-up?

Follow-up is individualised depending on the reason for the procedure. Normally a follow-up appointment is made 4-6 weeks after the procedure. Sometimes further procedures are booked in at this time.