



# Micturating Cystourethrogram

## What is it?

A micturating cystourethrogram (MCU) is a special radiological investigation, to assess some aspects of lower urinary tract anatomy and function.

## Background

The urinary tract consists of the kidneys, ureters, bladder and urethra.

The kidneys filter blood to make urine, which then travels down the ureters to the bladder. The bladder acts as a storage container until it is time to void. The urethra is the tube through which urine is expelled from the bladder.

## Why is it done?

There are many indications for MCU test:

- looking for blockage in the urethra in male infants with hydronephrosis (dilatation) of both kidneys
- for further assessment of a child with thickened bladder, poor stream and incomplete emptying on ultrasound
- looking for vesicoureteric reflux ('back-wash' or urine from bladder to kidneys) after urinary tract infection in some children.

## What happens during the test?

The MCU test may be done in the X-ray (radiology) department, or in an operating theatre.

Your child will lie on an X-ray table and have a small tube (catheter) placed through the urethra into the bladder. This will be uncomfortable and your child may need reassurance.

Contrast material (a clear liquid which shows up on X-ray) is injected through the catheter to fill the bladder, and xrays are taken.

Your child will be moved into different positions and have multiple pictures taken.

It is important to take pictures as the child is emptying their bladder (weeing) to get pictures of the urethra as well.

Sometimes the bladder needs to be refilled more than once, to get all the information needed.

When the study is complete, the tube is removed from the bladder.

## What happens afterwards?

You will be able to take your child home after the procedure.

Antibiotics should be taken as prescribed to reduce the chance of urinary tract infection.

Your child may feel uncomfortable when voiding for the next 24 hours. It helps if they drink plenty of fluids to flush the bladder.

There may be some blood in the urine after the test (pink or red in colour). This should clear within 24 hours, and will also be helped by drinking lots of fluid.

If your child develops a high temperature, or has persistent blood-stained urine they should return to the Emergency Department.

You will need a follow-up appointment with the doctor who ordered the MCU, so they can discuss the results with you and take further action as required.

## Are there any risks?

Complications are uncommon after MCU.

Mild haematuria (blood in the urine) is the most common. This should clear over a few days.

Infection can occur, due to placing the tube and instilling the contrast. Most young children will be on antibiotics around the time of MCU, to reduce this risk

Injury to the urethra or bladder from the insertion of the catheter is extremely rare. If it occurs, it is usually noticed at the time of the test. Your child may have severe pain and be unable to pass urine. They should return to the Emergency Department immediately.