

Your child's micturating cystourethrogram (MCUG)

This leaflet will answer some of the questions you may have about your child's MCUG, including the benefits, risks and what to expect when you come into hospital. If you have any further questions or concerns, please speak to a doctor, radiographer or nurse caring for your child.

What is an MCUG?

An MCUG is a study of the lower urinary tract or, more specifically, the bladder and urethra (the opening through which your child urinates). The examination shows the appearance of the bladder and how it fills and empties.

The procedure is carried out by both a radiologist (a doctor who uses x-rays to diagnose and treat illnesses) and a radiographer (a health professional who produces the images used to diagnose and treat illnesses). They use a special type of x-ray, called fluoroscopic imaging, to view images in real time (as they happen). This allows the radiologist to view your child's insides and see how they are functioning.

Why should my child have an MCUG?

This examination can provide information that will help the doctor to make a diagnosis or decision about your child's treatment. Your child may be having an MCUG to check for any problems such as repeated urinary tract infections or urinary incontinence, or it may be a follow-up examination after an operation. The examination can also look for structural problems of the bladder or if there has been injury to the bladder. If you have any questions about the examination, please contact your referring doctor.

What are the risks?

All x-ray examinations involve exposure to radiation in varying amounts. The length of time and level of exposure to radiation from x-rays in medical examinations is strictly controlled and kept to the minimum possible amount. The doses that are used in medical x-rays are very low and are thought to be very safe. They are similar in strength to other sources of natural radiation that people are exposed to every day.

The examination takes place in our children's fluoroscopy room that is specifically designed for children and young people and offers very low dose imaging.

Are there any alternatives?

This depends on what your child is being examined for. The team looking after your child will assess which examination is most appropriate. Each request is also vetted by the imaging team to make sure the most appropriate examination is carried out. If you have any questions please speak to the referring team looking after your child.

What should we do to prepare for an MCUG?

Your child must be on antibiotics before this examination to minimise the slight risk of urinary tract infection that is associated with the procedure. Your child should be on antibiotics for one whole day before the test, the day of the test and one whole day after the test (three days in total).

If your child is on prophylactic/preventative trimethoprim, your hospital doctor will advise you on altering the dose for the three-day period including the examination.

If your child does not usually take preventative/prophylactic antibiotics, they must be prescribed a three-day course of treatment-dose antibiotics. Please consult your child's GP, or the team looking after your child at the hospital, to arrange this.

If your child wears nappies or pads, please bring a spare so that this can be put on following the examination.

Asking for your consent

We want to involve you in all the decisions about your child's care and treatment. You will be asked if you consent to the procedure when you are called into the fluoroscopy room. If you do consent, this verbally confirms that you agree to your child having the examination and that you understand what it involves.

If you would like more information about our consent process, please speak to a member of staff caring for you.

Who can I expect to be in the room?

During the examination there will be a radiologist, a radiographer and a nurse in the room.

What happens before an MCUG?

As the imaging involves the use of x-rays, legally, we have to ask girls over the age of 12 whether there is any chance they could be pregnant. To do this we will provide a simple question sheet at the time you book in at the imaging reception. This will be checked by the radiographer doing the examination.

Before going into the x-ray room, your child may be required to get changed. The radiographer will tell you if this is necessary, direct you to a changing room and provide guidance on what to wear.

What happens during an MCUG?

The examination takes place in our children's fluoroscopy room that is located in the Children's Imaging Department. The radiographer will explain the examination and then assist your child into which ever position is best for the imaging examination. As a parent or carer you may be asked by the radiographer to support or hold your child in a particular position (this depends on their age). If this assistance is required you will be asked to wear a lead coat to protect you from the radiation. If there is any chance you could be pregnant please notify the radiographer before the examination begins. If you are pregnant, we advise you to bring another family member with you to act as a supporter.

An MCUG involves passing a catheter (small soft tube) into your child's bladder via the urethra. The bladder is then filled, through the catheter, with a warm liquid that is visible on the x-ray images. When your child's bladder is full they will need to pass urine. A number of x-rays will then be taken until your child empties their bladder. Your child will pass urine into a urine bottle or a dedicated funnel in the fluoroscopy room. Once all the liquid has emptied, the radiologist will gently remove the catheter and some final x-ray images will be taken.

Your child may feel embarrassed about having to urinate in front of other people, but this is a routine test and we want them to feel as relaxed as possible. The radiographer and doctor can leave the room so that only the nurse is remaining, or we can use a privacy screen.

Will my child feel any pain?

The antiseptic wash used to clean and prepare the area for the catheter to be inserted may feel cold. Some children may experience very mild discomfort when the catheter is inserted. To help with this we use a numbing gel. After this your child should not experience any pain or discomfort.

What happens after the procedure?

Once the examination has finished and the catheter removed, you and your child will be able to leave the department.

What does my child need to do after we go home?

Your child can eat and drink as normal and resume normal activities. They should continue with the course of antibiotics as prescribed until the course is finished.

When will I get the results?

The images taken during the examination will be studied by the radiologist. They will then write a detailed report and send this to the doctor who referred your child for the test. Your referring doctor will then discuss the results and any treatment your child may need, with you.

Your child should already have a follow-up appointment arranged with the team who referred them. If not, please contact them to arrange one so that you can discuss the results of this test.

Contact us

If you have any questions or concerns about the x-ray, contact the Children's Imaging Department, **t:** 020 7188 9218, or visit our website, **w:** www.guysandstthomas.nhs.uk or www.evelinalondon.nhs.uk

For more information leaflets on conditions, procedures, treatments and services offered at our hospitals, please visit, **w:** www.evelinalondon.nhs.uk/leaflets

Evelina London Medicines Helpline

If you have any questions or concerns about your child's medicines, please speak to the staff caring for them or contact our helpline.

t: 020 7188 3003, Monday to Friday, 10am-5pm **e:** letstalkmedicines@gstt.nhs.uk

Leaflet number: 4093/VER2

Date published: December 2018

Review date: December 2021

© 2018 Guy's and St Thomas' NHS Foundation Trust

A list of sources is available on request