

Micturating Cystogram



What is a Micturating Cystogram?

A micturating cystogram (MCU) is an x-ray examination of the bladder and lower urinary tract. A catheter is inserted through the urethra, the urinary bladder is filled with a water- soluble contrast material, and the catheter is withdrawn. Several x-ray images of the bladder and urethra are captured as the patient empties the bladder. These images allow the doctor to diagnose any abnormalities in the flow of urine through the body.

This procedure is often done on children after a urinary tract infection to check for a condition known as vesicoureteral (VU) reflux.

This procedure should not be performed while an active, untreated urinary tract infection is present.

How do I prepare for the examination?

No special preparation is required. You will be asked to change to an x-ray gown so that metallic objects e.g. zippers, button do not obstruct the visualization of the organs.



What happens during the examination?

- Patient lies on the x-ray table.
- A preliminary x-ray image is taken of the area of interest.
- Before the sterile catheter is introduced into the urethra, the genital area is scrubbed and prepared with sterile materials, which may feel cold because of the antiseptic.
- Catherisation is then performed after use of local anaesthetic gel.
- Contrast media is introduced into the tube. The radiologists watches a monitor while the bladder is filling to see if any of the liquid goes backwards into one or both ureters.
- After the bladder is filled, the catheter is removed and a series of images are captured as the patient empties his or her bladder.
- After voiding is complete, a final image is taken to see how well the bladder empties.

What are the benefits vs. risks?

BENEFITS

- MCU images provide valuable, detailed information to assist physicians in diagnosing and treating urinary tract conditions to prevent kidney damage.
- It is a minimally invasive procedure with rare complications.
- The procedure can often provide enough information to direct treatment with medication and avoid more invasive surgical procedures.
- The imaging process is fast, and less expensive than alternatives such as nuclear medicine MCU.

RISKS

- X-rays are a type of electromagnetic radiation, are invisible, and create no sensation when they pass through the body. Modern x-ray techniques use only a fraction of the x-ray dose required in the early days of radiology.
- Special care is taken during x-ray examinations to ensure maximum safety for the patient by restricting the x-ray exposure to only the part of the body being examined.
- For a child that is 5-10 years old, the effective radiation dose from this procedure is about 1.2 mSv, which is about the same as the average person receives from natural background radiation in 6 months, For an infant, the effective radiation dose from this procedure is about 1.2 mSv, which is about the same as the average person receives from background radiation in 3 months.

SERVICE IS AVAILABLE AT:

Radiology Department, Gleneagles Hospital 6A Napier Road Singapore 258500 Tel: (65) 6388 4333 Fax: (65) 6470 5749

Radiology Department, Mount Elizabeth Hospital 3 Mount Elizabeth, Level 2 Singapore 228510

Tel: (65) 6388 4333 Fax: (65) 6732 3368

Department of Radiology & Nuclear Medicine Mount Elizabeth Novena Hospital 38 Irrawaddy Road, Level 2, Singapore 329563 Tel: (65) 6388 4333 Fax: (65) 6933 0526

www.parkwayhealthradiology.com.sg
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