



Direct isotope cystogram (DIC)

This information sheet explains about the direct isotope cystogram (DIC) scan on your child's bladder, what is involved and what to expect when your child comes to Great Ormond Street Hospital (GOSH) for the scan.

What is a direct isotope cystogram (DIC) scan?

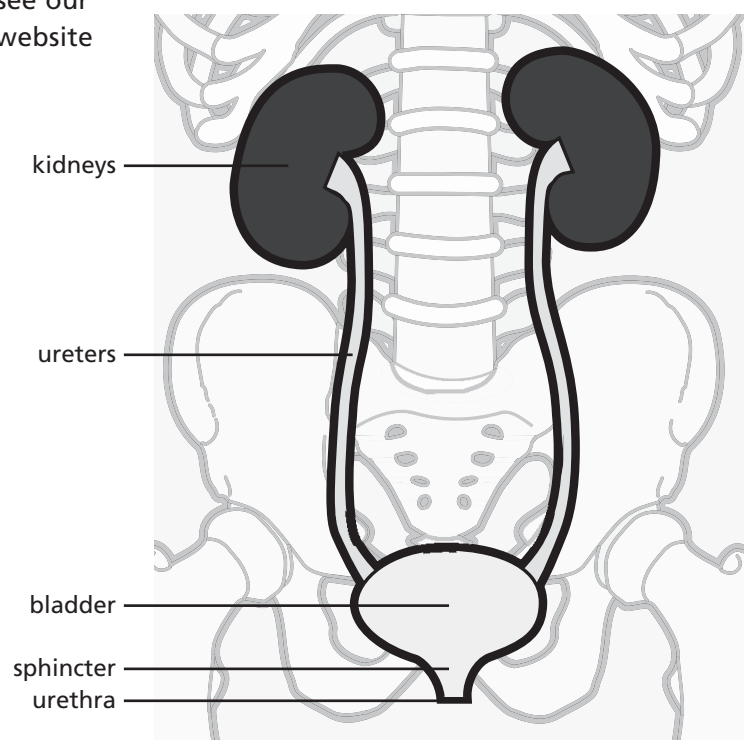
It is used in children who have not yet been toilet trained to assess how the bladder empties. If your child is close to being toilet trained, we will suggest an alternative test.

A direct isotope cystogram (DIC) shows whether urine is flowing back up the ureters to the kidneys (vesico-ureteric reflux) instead of out through the urethra as it should.

It works by inserting a catheter (thin, plastic tube) into your child's bladder through the urethra so that a substance called an isotope mixed with water can fill it up until your child wees. For more information about vesico-ureteric reflux, please see our information sheet available on our website or from the Pals Office.

Are there any alternatives?

Various types of scan such as CT, ultrasound and x-rays can show the size and shape of your child's bladder, but not how it is emptying. The results of the direct isotope cystogram are used to plan your child's treatment.





When you receive your appointment letter

If you are unable to keep this appointment, please inform the department at least one week beforehand. Sometimes, we can offer the appointment to another child on the waiting list. As so many children and young people need to use our services, we have had to introduce a policy where if a child cancels or does not attend two appointments in a row, we will close their referral and inform their GOSH consultant.

Before the appointment

Your child will need to have a five-day course of antibiotics after this scan, so it will be helpful to make an appointment with your family doctor (GP) or referring consultant to make sure you have a prescription ready.

Inserting the catheter into the bladder can increase the risk of a urinary tract infection. If your child is not currently taking antibiotics to prevent urinary tract infections, he or she will need to take an antibiotic (trimethoprim) for five days, from the day of the scan onwards. If your child is currently taking antibiotics to prevent urinary tract infections, you will need to give double the dose for the next five days, either in one single larger dose or give an extra dose in the morning or evening.

If you are pregnant or think you could be pregnant, please let us know at least two days before your child is due to come to GOSH for the scan. There is a risk that the isotope given to your child could harm your unborn baby, so we advise you to organise another adult to help look after your child for the first 24 hours after the scan. If this is not possible, we may have to reschedule your appointment. If your daughter is 12 years old or older, we will ask her about her periods and any possibility that she could be pregnant.

The day of the scan

Please arrive at the Radiology (X-ray) reception desk at the time stated in your child's appointment letter. Your child needs to be well-hydrated (not thirsty) to give a good result, so please make sure that he or she drinks plenty of fluids on the day of the scan. If your child is on restricted fluids, please follow guidance from your doctor.

Your child will be able to watch a DVD during the scan, so please bring along any favourites. It can also help if your child has a favourite toy to hold as well.

The scan

Your child will need to be put onto the scanning bed so that the doctor can insert the catheter into your child's bladder through the urethra. This does not hurt but it may be a little uncomfortable.

Once the catheter is in place, a small amount of isotope will be injected through the catheter, along with some salt water (saline) to fill up the bladder. When your child's bladder is full, he or she will wee into the nappy while some pictures are taken. Depending on how soon your child wees, the scan can last up to 20 minutes.

After the scan

When we have enough pictures, the catheter will be removed from your child's bladder. You will be able to put a fresh nappy on your child and take her off the scanning bed. If your child is not having any further scans or tests, you will be free to go home. The radiographer will send a report about the scan to your child's doctor.



Are there any risks?

There are minimal side effects to the scan. Inserting the catheter into the bladder can increase the risk of a urinary tract infection so your child should take antibiotics after the scan to reduce this risk. The isotope that we use will not interfere with any medicines your child is taking. The isotope contains a very small amount of radioactivity, similar the amount we receive from natural background radiation in about six months. This is not a danger to your child as the isotope becomes inactive in the hours following the scan. However, it is necessary to take some precautions for the first 24 hours after the scan, while the isotope is leaving your child's body. These are explained in the next section.

There is a risk that the isotope could harm an unborn baby, so please follow the instructions earlier in this information sheet to minimise these risks.

Inserting the catheter into the bladder can increase the risk of a urinary tract infection. Taking a course of antibiotics (or increasing the dose if your child is already taking them) can reduce this risk. You should have the antibiotics ready to start giving to your child when you get home.

Going home

For the first 24 hours following the scan:

- Your child should drink plenty of fluids. This will allow the isotope to pass out through his or her body as quickly as possible.
- You should change your child's nappy frequently and dispose of it in an outside bin. Wash your hands thoroughly after nappy changing.
- If you are pregnant or think you could be pregnant, you should avoid contact with your child's bodily fluids, such as urine (wee), faeces (poo) and vomit.
- Your child should continue to take any medicines as usual. The isotope will not affect them in any way.

**If you have any questions,
please telephone the Radiology
department on 020 7405 9200 ext 5220**

Compiled by the Radiology department in collaboration with the Child and Family Information Group
Great Ormond Street Hospital for Children NHS Foundation Trust, Great Ormond Street, London WC1N 3JH
www.gosh.nhs.uk