

## Child health information factsheet

# Urinary tract infection

To diagnose your child's urine infection we will need a clean urine specimen. The urine will be collected by sitting your child in a small clean bowl or potty or by using a small bag attached to the skin for a short time.

Sometimes in small babies the doctor may collect the urine using a needle. This procedure can be a little uncomfortable but usually only takes a few seconds.

The urine is then sent to the laboratory to see if it contains an infection and if so, what type of bug is causing it. This infection is usually easily treated with antibiotics. In small babies and with severe infections the antibiotics are given intravenously, (into the veins) by the nurses in hospital.

It is important to find out if there is an underlying problem that has caused the urine infection. The following investigations may be carried out to help understand why it happened. While these investigations are being carried out your child may continue taking antibiotics which will help prevent further infection until a cause has been found.

### Renal ultrasound

This is a painless test and does not involve any injections. Your child will have to lie reasonably still while the kidney and bladder are being examined. A small scanner attached to a screen is placed on the skin using jelly. This test is very similar to the scan done on pregnant mums and will be carried out in the children's x-ray department.

### Micturating cystourethrogram (MCUG)

This investigation is to examine the tubes leading from the kidneys to the bladder. Sometimes urine 'backtracks' up the tubes from the bladder to the kidneys. This is called reflux.

A small plastic tube called a catheter is placed in the bladder through the urethra and is used to drain off any urine. A special dye is then inserted through the catheter which shows up on the x-ray. A number of pictures will be taken with the bladder full and while your child lies on their side and passes urine until their bladder is empty.

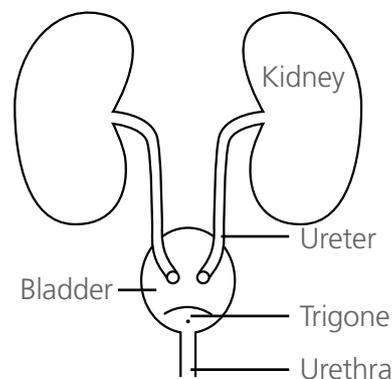
This procedure can be a little uncomfortable but it usually only takes a few seconds and is done by an experienced children's nurse or doctor.

This investigation is usually done at an outpatient appointment about four to six weeks after the acute infection has improved. With very small babies we normally like to wait until they are six months of age before doing this test.

If a blockage to the bladder is suspected, this test will be done more urgently within one to two days.

An MCUG is only normally done on children older than six months if the ultrasound suggests a particular problem that needs further investigation.

**Diagram of the renal system**



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We recommend that you encourage your child to have plenty to drink after this examination.

A young baby will often be given an added antibiotic by injection before this examination and an older baby or child will often have their antibiotic dose increased for a few days after the examination to help prevent a further infection due to the procedure.

If there are any problems with your child passing urine after this test you should contact your GP.

## Dimercaptosuccinic acid (DMSA)

We recommend this test in all children under the age of six months who have a diagnosed urinary tract infection. It is usually done three to four months after the infection started.

This test looks very closely at kidney tissue, to find out how well the kidneys are working and to look for evidence of damage caused by the infection. This investigation will involve an injection of dye sent through the veins and into the kidneys. Pictures of your child's kidneys are taken two to four hours after the dye has been injected. Your child will need to lie still for this.

The dye used in this test is a radioactive material. It is therefore important to be careful with strict hand washing after changing your child's nappy for 24 hours after the test.

If your child has the tests as an outpatient the results of these investigations will be available at your child's next outpatient appointment. Sometimes there are other specialised investigations, which are done if the initial x-rays suggest certain drainage problems from the kidney. The doctor will explain these tests to you if they are needed.

Other than the ultrasound, all of the investigations of the kidney involve a small amount of x-ray radiation. By using the specialised equipment and keeping the test time to a minimum, this x-ray exposure is kept to a very low level, which is considered to be safe.

All the tests are done to pick up problems that may result in damage to the kidneys or recurring infections.

We know that up to a third of children who get urine infections will have some underlying problem making them prone to infection. This can often be dealt with when we make an early diagnosis.

## Conclusion

During all of these tests parents are welcome to stay with their child if they want to. If you have any questions about your child's care and the treatment or investigations discussed in this leaflet please do not hesitate to talk to your nurse or doctor.

## If you have any questions or concerns please contact

Ward G4 nephro-urology: 023 8079 8620

**If you need a translation of this document, an interpreter or a version in large print, Braille or on audio tape, please telephone 023 8079 4688 for help.**