URINARY REFLUX IN CHILDREN

HOW DOES THE URINARY SYSTEM WORK?

The urinary system is made up of the kidneys, bladder, ureters (tubes that connect the kidneys to the bladder) and urethra.

The kidneys act as filters removing extra fluid and waste from your blood to make urine. Urine passes from the kidneys into the ureters, which drain it into the bladder.

When the bladder is full, urine flows out of the body through a tube called the urethra.

WHAT IS URINARY REFLUX?

The ureters normally enter the bladder at an angle creating a muscular ‘tunnel’. This normally closes when the bladder contracts to stop urine from flowing back up the ureters in the direction of the kidneys. If this system doesn’t work, urine can flow back towards the kidneys. This is called vesicoureteric reflux (VUR), also known as urinary reflux. Sometimes urinary reflux can be associated with other problems with the urinary tract or with small, damaged or malformed kidneys.

HOW COMMON IS IT?

Around two in every hundred babies will have urinary reflux. Research shows that as the child’s bladder gets bigger, the ‘tunnel’ can get longer and most cases of reflux will get better as the child grows. If one child in a family is affected, there is a chance that brothers and sisters may also have this problem. It may be important to test the other members of the family. This should be discussed with your doctor.

WHAT ARE THE SYMPTOMS?

Urinary reflux does not have any symptoms. However, urinary tract infections due to urinary reflux can cause:

- burning sensation when passing urine
- wanting to urinate more often, if only to pass a few drops
- cloudy, bloody or very smelly urine
- pain in the lower part of the body
- stomach aches
- wetting - day or night wetting in a child who has been dry
- fever
- poor feeding, vomiting and ongoing irritability in babies and young children

If your child has any of these symptoms, they should see a doctor. See the ‘Urinary tract infection’ and ‘Make the most of your visit to the doctor’ fact sheets for more information.
**WHAT TESTS ARE NEEDED?**

The tests for urinary reflex depend on the child’s age, how many infections they have had and how bad the infections are. Most children will have an ultrasound of the kidneys and bladder, which is a painless test that gives your doctor a good look at those organs.

Sometimes a special X-ray called a voiding cystourethrogram (also called a micturating cystourethrogram or MCUG for short) is needed. A fine plastic tube is placed into the child’s bladder and a liquid is passed through the tube to fill the bladder. This liquid shows up on the X-ray and gives a good view of the bladder. X-rays (normal X-rays or sometimes a nuclear medicine scan or special ultrasound) are then taken as the child passes urine. If the liquid is seen on X-ray to flow up the ureters towards the kidney, then your child has reflux. Reflux is graded from Grade 1 (mild) to Grade 5 (severe).

**HOW IS URINARY REFLUX TREATED?**

Most children who have urinary reflex do not need treatment, but may need to see their doctor regularly. However, some children with urinary reflux that have had a urine infection or have associated kidney abnormalities may be advised to take an antibiotic every day to prevent urinary tract infections.

Surgery is sometimes needed if the child continues to get urinary tract infections while they are on antibiotics, if they have other complex abnormalities of the urinary tract, or if they have serious reflux.

Surgical correction of urinary reflux consists of either ‘re-inserting’ the ureters back into the bladder to make a new tunnel, or injecting special material around the bottom of the ureters. Both of these operations restore a functional tunnel and can successfully prevent reflux. If your child needs surgery, your doctor will discuss the options with you.

For more information about Kidney or Urinary health, please contact our free call Kidney Health Information Service (KHIS) on 1800 454 363. Alternatively, you may wish to email KHIS@kidney.org.au or visit our website www.kidney.org.au to access free health literature.

This is intended as a general introduction to this topic and is not meant to substitute for your doctor's or Health Professional's advice. All care is taken to ensure that the information is relevant to the reader and applicable to each state in Australia. It should be noted that Kidney Health Australia recognises that each person’s experience is individual and that variations do occur in treatment and management due to personal circumstances, the health professional and the state one lives in. Should you require further information always consult your doctor or health professional.

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If you have a hearing or speech impairment, contact the National Relay Service on 1800 555 677 or www.relayservice.com.au. For all types of services ask for 1800 454 363.