

# Parent information on Kidney and Bladder Problems Detected before Birth by Ultrasound

**Children's Services**  
**Women and Children's Services**

**This leaflet has been designed to give you important information about your condition / procedure, and to answer some common queries you may have.**



## Information for patients and visitors

### Parent information on Kidney and Bladder Problems Detected before Birth by Ultrasound

This leaflet aims to provide you with some further information about kidney and bladder problems detected before birth by ultrasound scan and the management of these problems. We hope the information will add to the explanation that you will already have received from the neonatologist (baby doctor) and obstetrician.

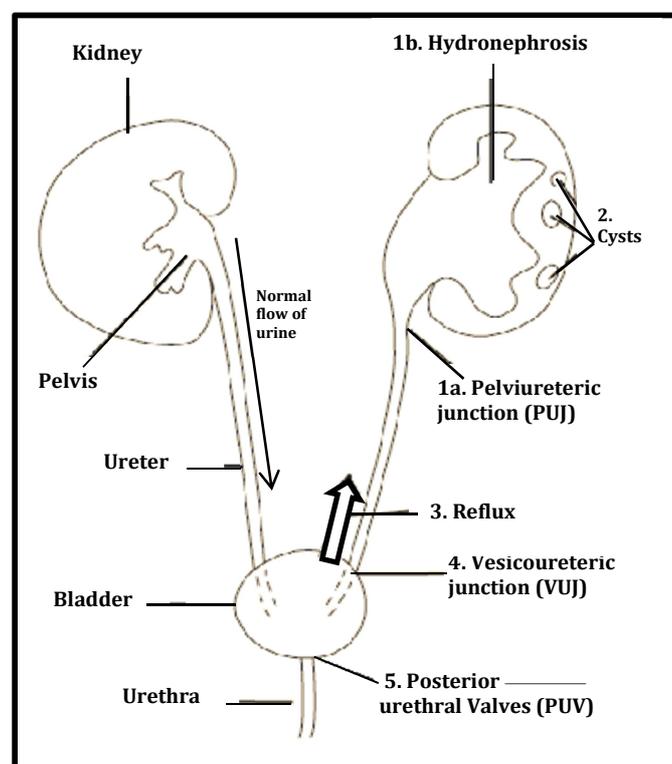
The detailed ultrasound scan carried out in pregnancy will give us a good idea of the problem affecting your baby's urinary tract (kidney, bladder and ureters – see diagram). We are always cautious to say that we never know **PRECISELY** what the problem is until baby is born and we have completed our investigations on baby after birth.

We will explain to you what we think the most likely Diagnosis is and how it is likely to be managed. As long as:

- a) your baby is growing well in the womb
- b) no other abnormalities have been found and
- c) the volume of liquor (womb fluid) is normal

Then, overall your baby's kidneys are **NOT** likely to be significantly damaged. Few babies require an operation after birth.

### Possible Problems



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The more common diagnoses include:

### 1. Pelviureteric Junction Obstruction (PUJ)

This refers to a narrowing of the ureter at the junction with the kidney (1a in the picture) causing a blockage of the flow of urine. As a result, the pelvis of the kidney enlarges. This increase in the size of the pelvis of the kidney is what we call hydronephrosis (1b).

### 2. Multicystic Dysplastic Kidney (MCDK)

This refers to many cysts in an abnormal kidney (2). It usually occurs because the ureter does not join with the kidney during development and the kidney never really works normally. This kidney may shrink and disappear with time.

### 3. Vesicoureteric Reflux (Reflux)

This is due to a weakness at the point where the ureter(s) enter the bladder, allowing urine to pass back up towards the kidney (3). The problem may affect one or both of the kidneys. We will watch your child's progress in the Baby Clinic and your baby will need to take a low dose antibiotic every night to prevent infection for two years. Rarely, if your baby has repeated urine infections despite the antibiotic, we will refer your baby to one of our surgical colleagues for further management.

### 4. Vesicoureteric Junction Obstruction (VUJ)

This refers to the narrowing of the ureter at the junction with the bladder (4). Urine is held up in the ureter and kidney causing enlargement of the ureter and hydronephrosis.

### 5. Posterior Urethral Valves (PUV)

This refers to the blockage in the urethra near the bladder (5) and is found only in boys. This makes it difficult to pass urine. As the bladder works hard to get urine out, this causes pressure which may result in urine being pushed back from the bladder into the ureters and kidneys. This can also cause hydronephrosis and swelling of the bladder. This may lead to kidney damage or bladder wall thickening.

## Are there any other problems that can be recognised before birth?

The following problems might be detected before your baby is born:

- Occasionally, the kidneys develop with two tubes on one side and we call this a duplex or double system
- One tube may be dilated or blocked by a swelling at the lower end, in the bladder region that we call an ureterocele. It may be necessary to deal with this after the birth by a simple operation
- The kidneys may both develop on one side only (crossed ectopia)
- The kidney may be down in the pelvis and not in its normal position (pelvic kidney)
- Two kidneys may be joined together (horseshoe kidney)

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- There may be only one kidney detected on ultrasound (single kidney). The other kidney may not have developed or may have disappeared – as in the case of the MCDK, for example. As long as the remaining kidney grows and enlarges to compensate, the child should have no problems during life. This may in fact be the most common abnormality found in adults

### What happens at delivery?

Your labour and delivery will usually proceed as normal and only in very special circumstances will the obstetrician suggest early delivery or other treatment.

### What happens after baby is born?

Unless your baby has a major problem after birth, you will be allowed home at the usual time. A health care professional trained in new-born examination will examine the baby within the first 72 hours of life (routine) and organise one or more of the following tests:

1. An ultrasound scan of the kidneys, ureters and bladder to show their outlines. This initial test is done after 48 hours of life and can be performed after discharge home
2. A bladder X-ray (called a micturating cystourethrogram). This requires a small tube to be passed into the bladder through the urethra. Your baby will need to be on antibiotics twice a day for two days, starting on the day of this test, to prevent any infection. This test will show if the urine is going up to the kidneys from the bladder
3. A kidney scan (DMSA scan or MAG 3 scan) which involves the baby having an injection to show how well the kidneys are working and if there is any blockage

These tests will be performed at the Diana, Princess of Wales Hospital, Grimsby, and will be co-ordinated by the Neonatologist.

The bladder X-ray and the kidney scan will only be carried out if the ultrasound scan is abnormal. Your baby will need to be on an antibiotic every night to prevent infection until the results of the above tests are available. The need to continue with this antibiotic will be reviewed at the baby clinic.

If we suspect that a male baby may have posterior urethral valves, a catheter (thin plastic tube) will be put into the bladder to drain away urine and relieve the back pressure on the kidneys. In this scenario the ultrasound scan will be carried out in first 24 hours of life. If this is confirmed, your baby will be transferred to a tertiary centre for specialist care.

Please always feel free to ask us any questions that worry you or to clarify when the information is unclear.

### References

Alan R Watson.

British Journal of Renal Medicine Summer 2002.



## Information for patients and visitors

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### Contact Details

Consultant – Diana, Princess of Wales Hospital – 03033 306999

Medical Secretary – 03033 306999 ext. 304791

### Contact Details for Further Information

#### Grimsby

Pre-Assessment Nurse  
03033 306999 ext. 303571 / 303161

Community Nursing Team  
03033 306999 ext. 304509

Rainforest Ward (Children's Ward)  
03033 306999 ext. 304477

#### Scunthorpe

Paediatric Outpatient Department  
03033 306999 ext. 302630 (Mon-Fri 9-4 pm)

Disney Ward (Children's Ward)  
03033 306999 ext. 302553

### Patient Advice and Liaison Service (PALS)

The Patient Advice and Liaison Service offers confidential advice, support and information on any health related matters.

If you have a comment, concern, complaint or compliment about the care or service you have received from the Trust you can contact the PALS team as follows:

Telephone: 03033 306518

Email: [nlg-tr.PALS@nhs.net](mailto:nlg-tr.PALS@nhs.net)

There are also offices at both the Diana Princess of Wales Hospital (near the main entrance) and Scunthorpe General Hospital (on the C Floor, near the outpatient department), should you wish to visit.

**Please note: PALS should not be contacted for clinical advice relating to the content of this leaflet. The service should be contacted directly in the first instance.**



# Information for patients and visitors

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## Northern Lincolnshire and Goole NHS Foundation Trust

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Grimsby  
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Scunthorpe General Hospital  
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Scunthorpe  
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