

# Antenatal Hydronephrosis

An information guide

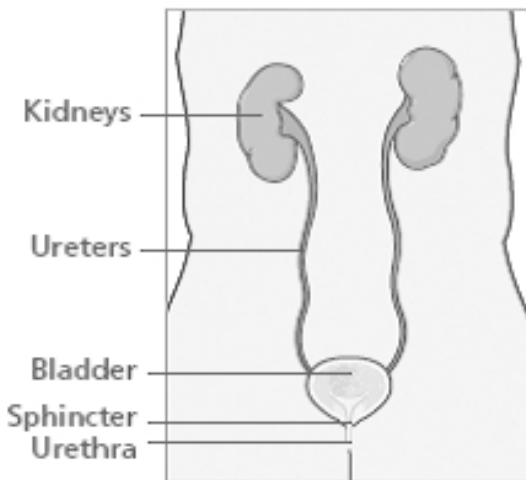


# Antenatal Hydronephrosis

This leaflet explains about hydronephrosis and what to expect during your pregnancy and after your baby is born.

Hydronephrosis is one of the commonest problems we see on antenatal scans and occurs in approximately 1% of the babies.

This is a common problem which often improves by itself but some further investigations are necessary to make sure that there are no other problems with your baby's kidneys.



## What causes hydronephrosis?

There are many causes of hydronephrosis, including:

- ***Transient dilatation*** – Mother's hormones during the pregnancy have a relaxing effect on muscle; these hormones work on your baby as well. Sometimes this effect is seen in the ureters, which may appear large. For these babies, once the hormones have disappeared after delivery, the ureters will shrink back down to a normal size. When we repeat the ultrasound scan few weeks after baby is born we may find that the ureters have returned to normal.
- ***A blockage*** - This can occur between the kidney and the ureter (pelviureteric junction), between the bladder and the ureter (vesicoureteric junction) or in the urethra (posterior urethral valves).
- ***Vesicoureteric reflux*** - This occurs when the valve between the ureter and the bladder does not work properly and urine can travel back up to the kidney.
- ***Ureteric duplication*** - This affects about 1 % of the population. Children with ureteric duplication have two ureters leading from a kidney to the bladder, instead of one. Occasionally, they have a blockage at the lower end of one of the two ureters called an ureterocele.
- ***A multicystic dysplastic kidney*** - This is a non-functioning kidney made up of many cysts. Sometimes these shrivel up and disappear, but some need to be removed at a later stage.

## What are the symptoms of hydronephrosis?

If your baby is diagnosed to have hydronephrosis during the 20 week scan, this should not cause you any symptoms and you should be able to have normal antenatal care, other than possibly having a few more scans.

Hydronephrosis does not usually cause a baby any problems before birth, but they may need close monitoring and assessment after birth to discover what is causing the hydronephrosis and keep an eye on the condition.

After birth you will be referred to a baby doctor with a special interest in kidneys.

## How can hydronephrosis be treated?

Most babies born with Antenatal hydronephrosis (ANH) will have no lasting problems.

A very small number of babies who continue to have a problem may require an operation to correct the blockage.

We will be starting your baby on an antibiotic called Trimethoprim to reduce the risk of urine infection. This is a small dose and will not harm your baby **(please continue antibiotics until reviewed by the paediatrician in outpatient clinics. You can get a repeat supply from your GP).**

If the hydronephrosis is diagnosed during pregnancy, early treatment will consist of monitoring with ultrasound, to check that the baby is growing normally and the kidneys are not getting too large. The baby will usually be born by a routine delivery.

After the baby is born, the hydronephrosis will be monitored using ultrasound scans and other tests may be needed.

The overall treatment for hydronephrosis depends on what is causing it, **however the vast majority of babies with hydronephrosis never need any operations:**

- If the cause is vesicoureteric reflux, the child will probably be treated using antibiotics.
- If the cause is a blockage, your child may need an operation called a pyeloplasty to remove the block.
- If the cause is a multicystic kidney, the affected kidney may be removed leaving the normal one on the opposite side or it may be left in place as long as it is doing no harm. Having only one kidney will not have any significant effect on your child's health.

### **What does this mean for your pregnancy?**

- Your baby will not have to be born early and can be born by routine delivery.
- There is no increased rate of miscarriage or preterm delivery.
- Your baby will grow at the normal rate.
- Your baby will need to be seen by a neonatal (baby) doctor and have passed urine before you go home.

## **What tests will your baby require?**

1. Your baby will need an ultrasound scan (similar to the one done during pregnancy) after birth to get a clearer picture. For most babies this will be done as an outpatient, but the neonatal doctor will discuss this with you after delivery.

2. Your baby may require a bladder X-Ray test called a Micturating Cystourethrogram (MCUG) which will be done either at NMGH or Royal Oldham Hospital. This involves passing a tube into the bladder and injecting a dye to diagnose vesicouretric reflux. The doctor can provide you with information leaflet about this procedure.

3. Your baby may require a test called a DMSA scan which involves an intravenous injection and taking special pictures of your baby's kidneys to see how well your baby's kidneys are functioning. This will be arranged if your baby has a diagnosis of multicystic dysplastic kidney. This test will be done at NMGH and will require half a day to complete.

4. Your baby may have a test called MAG-3 Renogram which involves an intravenous injection and taking pictures which look at the drainages of your baby's kidneys. This will be arranged if there is suspicion of blockage to the kidneys, and is performed at NMGH.

## **What is the outlook for children with hydronephrosis?**

1. Most babies will just need monitoring and in many the hydronephrosis improves and require no further monitoring.
2. If the cause of the hydronephrosis is an obstruction and this is removed, your child's kidneys will be able to work properly. If the obstruction is mild it may not need an operation and doctors will follow up your baby and monitor the progress by repeating scans.
3. If the cause of the hydronephrosis is vesicoureteric reflux that is not too severe, your child's kidneys are also likely to work properly. Your baby will need to remain on the antibiotic trimethoprim if the cause of the hydronephrosis is severe vesicoureteric reflux; sometimes the kidneys may not be normal and may function less well. This will require long term monitoring and in some the outlook may be less good. Occasionally your child may need an operation to correct the reflux. However, the earlier the hydronephrosis is discovered, the better the outcome for your child.

## **How would you know if your baby has a urine infection whilst on antibiotics ?**

If your baby is unwell with fever, vomiting or poor feeding it is important to get him/her checked over by your GP and the urine sample tested as this may indicate a urine infection which is resistant to the antibiotic your baby is taking.

Please feel free to ask.

**If English is not your first language and you need help, please contact the Interpretation and Translation Service**

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