

Antenatal hydronephrosis - renal pelvic dilatation

Information for you

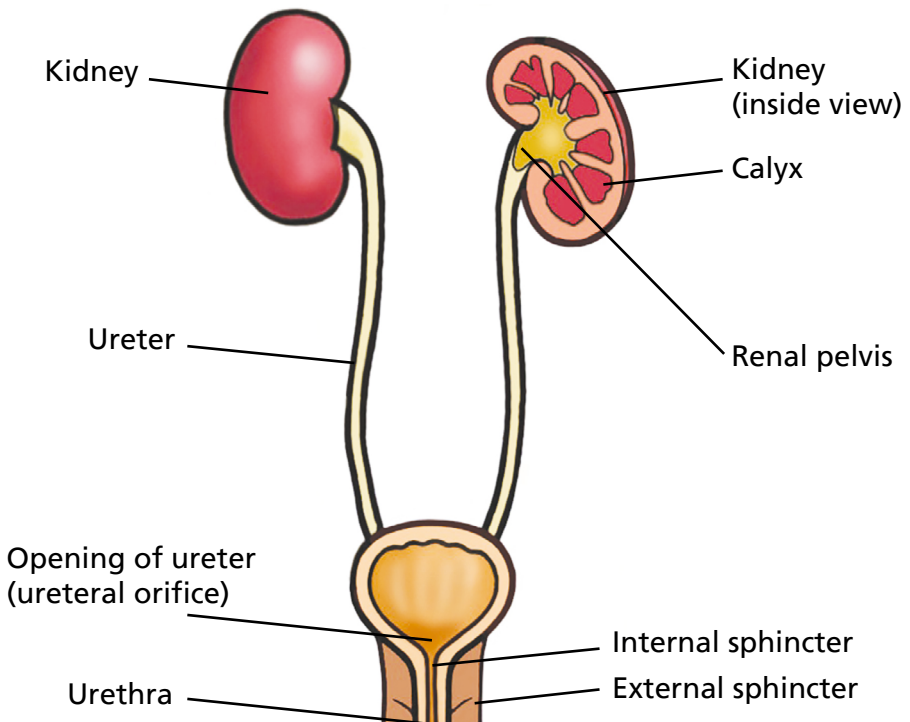


Leeds
Maternity Care

What is renal pelvic dilatation?

This is a common problem that can be seen in approximately 1% of pregnancies. Most cases are not serious. The problem often disappears by the time the baby is born, with no long-term effects on the baby and mother.

The kidney is made up of two parts. The first produces urine and the second transfers urine from the kidney to the bladder - this part is called the **renal pelvis**. Urine then flows from the renal pelvis down a tube called the ureter into the bladder (see picture below). The renal pelvis is measured at your anatomy scan at 20 weeks. The normal measurement of the renal pelvis is 0-7mm before 24 weeks and less than 10mm after 28 weeks.



Why does this happen?

In most cases there is no underlying problem and it may be a temporary finding.

Occasionally hydronephrosis is caused by other problems:

- It may be due to backward flow of urine from the bladder into the ureters, called vesico-ureteric reflux.
- It can be due to a blockage in the urinary system causing dilatation (enlargement) of the kidneys.
- It can be due to a multi-cystic dysplastic kidney (this is a non-functioning kidney made up of many cysts).

What will happen next?

- You may be referred to the Fetal Medicine Unit.
- You will need a follow-up ultrasound scan (USS) at 28-34 weeks to assess your baby's kidneys, your baby's growth and the amount of amniotic fluid that your baby is floating in.
- You may also see a paediatric urologist (a surgeon who treats children with kidney problems) or a paediatric nephrologist (a doctor who treats children with kidney problems). He or she will let you know as much as possible about what to expect when your baby is born.

What does this mean for your pregnancy?

- There is no increased rate of miscarriage or pre-term delivery.
- Most babies do not have to be born early and can be born by normal delivery.

What will happen after my baby is born?

In most cases this dilatation is temporary and does not indicate a problem with your baby's kidneys.

You may need to come back to the hospital for your baby to have imaging tests (scans).

- **Your baby may need further USS.** Ultrasound scans done after birth are very effective at determining whether dilatation of the kidney is still present or getting worse. This is similar to the scans you had in pregnancy; it is painless and will take about 15 minutes. Your baby may either have the scan prior to discharge or you will be given an appointment date before discharge. If the dilatation has disappeared, then no more scans are required.
- Your doctor may also arrange a **DSMA scan**, which checks for any damage of the kidneys, and/or a **MAG3 scan**, which shows whether blood is going into the kidneys and whether there is a blockage in the urinary system. These are normally done when your baby is some weeks old. In each test, a chemical that gives out a small amount of radiation (energy) is injected into one of your baby's blood vessels - a special gel or cream can be used to stop your baby feeling any pain. A special camera takes images of your baby's kidneys.
- An **MCUG** (sometimes called a VCUG) checks how your baby is passing urine, and whether there is any reflux (when urine passes back up towards the kidney). A thin flexible tube called a catheter is passed through your baby's urethra and a dye is put through to reach the bladder - this does not hurt your baby. A special x-ray machine takes a series of images of your baby's bladder while it is emptying.

- If there is a partial blockage of flow of urine from the kidney it may require treatment as your baby gets older to prevent damage to the tissue of the kidney.

After birth

Most babies do not need treatment. This will depend on findings from the antenatal ultrasound scans and tests after birth. In most cases, babies can be discharged after birth. Rarely, babies with complications need to be moved to the neonatal unit.

- Your baby may need to take a small dose of antibiotics after birth to prevent urinary tract infections.
- Occasionally, a baby needs an operation to correct the problem that is causing the hydronephrosis.

Follow up

All babies with antenatal hydronephrosis need follow up.

This may be for the first year of your child's life or until he/she goes to school.

Notes/questions

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