

# Antenatal hydronephrosis (Overview)

This infoKID topic is for parents and carers about children's kidney conditions.

This leaflet has the overview only.

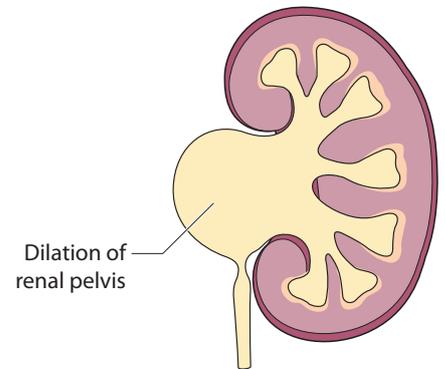
Go to [www.infoKID.org.uk](http://www.infoKID.org.uk) to find out more about this topic or other topics

During or after your antenatal ultrasound scan, your doctor or midwife may have told you that your baby has antenatal hydronephrosis. This means that one or both of the baby's kidneys are stretched and swollen because they are holding on to urine (wee).

Antenatal hydronephrosis is quite common, affecting about 1 in 100 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 or mother.

You may need more scans during the pregnancy to find out whether the antenatal hydronephrosis continues or causes problems. Your baby may need tests after birth.

Sometimes, antenatal hydronephrosis is caused by other problems, such as when urine refluxes (passes back) towards the kidney, or an anomaly that blocks the flow of urine. Rarely, it suggests more serious problems during the pregnancy or after birth. A few children will need monitoring and/or treatment, such as surgery.



## About the urinary system

The **urinary system** starts to develop several weeks into pregnancy. It gets rid of things that the body no longer needs, so that we can grow and stay healthy.

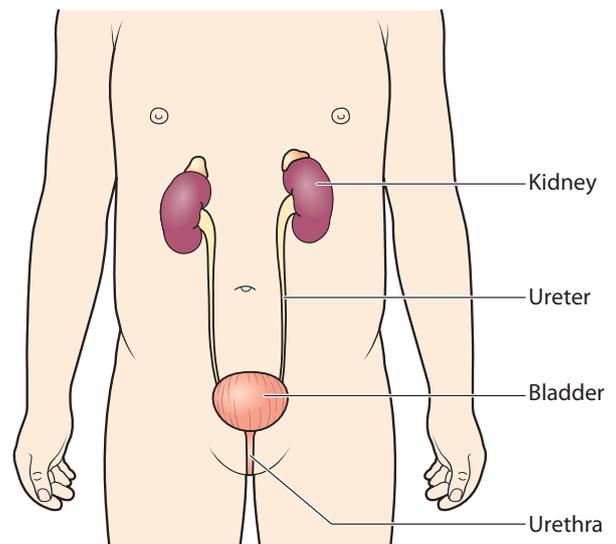
The **kidneys** are bean-shaped organs. They filter blood to remove extra water and waste in urine (wee). Most of us have two kidneys. They are on either side of our spine (backbone), near the bottom edge of our ribs at the back.

The two **ureters** are long tubes that carry urine from the kidneys to the bladder.

The **bladder** is a bag that stores urine until we are ready to urinate. It sits low down in the tummy area.

The urethra is a tube that carries urine from the bladder to the **outside** of the body.

» [More about the urinary system and kidneys](#)



## Causes

**Antenatal** means that the problem happens before birth.

**Hydronephrosis** means water on the kidneys ('hydro' means water and 'nephrosis' means a problem with the kidneys). There is a build up of urine in one or both kidneys. Affected kidneys **dilate** – they swell up and become stretched.

### Why it happens

Antenatal hydronephrosis is not inherited from the mother or father, and is not caused by anything that the mother does during her pregnancy.

Most cases of antenatal hydronephrosis are not caused by any problems, and get better.

Occasionally, hydronephrosis is caused by other problems:

- **vesicoureteral reflux (VUR)** – when babies with VUR pass urine, some urine refluxes (passes back up) the wrong way towards the kidneys
- an obstruction or 'blockage' may partially or fully stop the flow of urine.

### Other problems

In a few cases, antenatal hydronephrosis can be associated with problems affecting the development of the kidneys or the urinary system. If the scans show a problem, your doctor will discuss this with you.

## Test and diagnosis

The 20 week antenatal **ultrasound scan** looks at your baby growing in the womb. Antenatal hydronephrosis may be suspected if part of the baby's kidney is larger than usual.

You may need to go back to the hospital for more ultrasound scans. These scans check whether there is still a problem later in the pregnancy, and how it is affecting your baby.

### Referral

You may be referred to specialist healthcare professionals, such as a **paediatric urologist** (a surgeon who treats children with problems of the urinary system) 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.

### After birth

You may need to return to the hospital with your baby for more tests. Many babies who had antenatal hydronephrosis have an ultrasound scan some days after birth, which can help find out the cause and whether treatment is needed. Some babies need other tests.

## Symptoms

Most children do *not* have any symptoms after birth. Some are at risk of **urinary tract infections (UTIs)**. Urine is normally sterile (free of germs), but sometimes bacteria (germs) get into the urine and travel into the urinary system. This causes an infection in part of the urinary tract. This is usually in the bladder (also called **cystitis**).

Symptoms include:

- Babies and young children with a UTI may have fever (temperature over 38°C), be sick (vomit), feel tired or irritable and not feed well
- Older children with a UTI may have pain or a stinging/burning feeling when passing urine (**dysuria**), may need to go to the toilet more often than usual (frequency) or hold on because it is painful to go, or may wet themselves more often than usual.

→ **If you think that your child may have a UTI, contact your doctor. If you cannot reach your doctor straight away, contact 111 or NHS Direct or your local out-of-hours GP service.**

## Treatment

### Before birth

In most cases, *no* treatment before birth is needed. In a very small number of cases, an operation may be recommended during pregnancy.

### After birth

This depends on findings from the antenatal ultrasound scans and tests after birth. In most cases, babies can be discharged home a short time after birth.

Rarely, babies are born with complications and need to be moved to a **neonatal unit**, an area of the hospital for newborn babies, for monitoring and treatment.

### Preventing and treating UTIs

Some babies are at higher risk of **urinary tract infections (UTIs)**. If they keep coming back, they *may* cause damage to a kidney. To protect the kidneys, it is important to prevent UTIs, and treat them quickly when they do happen.

### Other treatment

A very small number of babies need other treatment, such as surgery, to correct the problem that caused the hydronephrosis. If your baby needs treatment, a **paediatric urologist** will explain what will happen.

## About the future

In most cases, antenatal hydronephrosis does not cause any problems for the pregnancy or childbirth, and the baby and mother will not have any long-term problems.

Your child will be able to do all of the things that other children their age do. Your child should be able to go to nursery and school, play with other children and stay active.

## Follow up

All babies with antenatal hydronephrosis need to go back to the clinic or hospital for more tests and to see the doctor.

## Long-term effects

A very small number of children develop long-term problems with their kidneys or bladder and will need specialist treatment.

» **More information about antenatal hydronephrosis on [www.infoKID.org.uk](http://www.infoKID.org.uk)**

## Your notes and contact information

[www.infoKID.org.uk](http://www.infoKID.org.uk)



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For details on any sources of information used in this topic, please contact us through our website [www.infoKID.org.uk](http://www.infoKID.org.uk).

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