

What can be done to treat the Hydronephrosis?

The treatment of hydronephrosis depends on the underlying cause. Children who have vesicoureteral reflux (backward flow of urine from the bladder to the kidneys) are managed with antibiotics and regular ultrasound scans.

Children with an obstruction or blockage of the urinary tract may need to have a nuclear medicine (a type of medical imaging) test called a MAG3 to see how the flow of urine is occurring and may then need surgery to fix the problem.

Children without reflux or obstruction are followed with regular ultrasound scans to monitor the hydronephrosis and the growth of the kidneys. It is most likely that they will outgrow this.

Support for parents and carers

Great support and advice is available for parents dealing with a pregnancy diagnosed with a kidney problem and you should never feel that you are alone. You will be able to access pregnancy counselling through your Fetal Medicine Unit for you and your whanau.

You may also like to contact:

www.parent2parent.org.nz/

Parent to Parent New Zealand is an information and support network for parents of children with special needs ranging from the very common to the most rare conditions.

References

Image 1 & 3: The Children's Hospital of Philadelphia

Image 2: Alila Medical Media

For more information please contact your local
NZMFMN Unit



Auckland: 09 307 4949 ext 24951



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Hydronephrosis



What is Hydronephrosis?

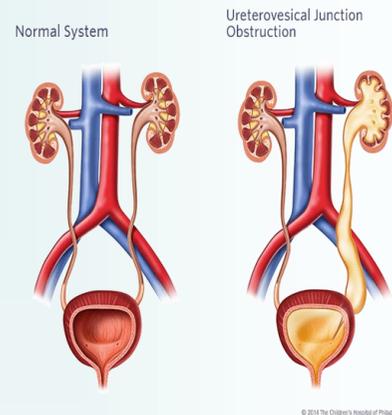
Hydronephrosis occurs when the baby's kidneys become enlarged due to a build-up of urine. Hydronephrosis can be mild, moderate or severe and it can require close monitoring. Occasionally, the kidneys can appear enlarged (dilated) during an antenatal ultrasound yet function normally after birth.

There are several important causes to consider and in most cases this diagnosis will not alter the course of your pregnancy but your baby will require careful follow-up and possible surgery during infancy and childhood.

What causes Hydronephrosis?

Possible causes of Hydronephrosis include:

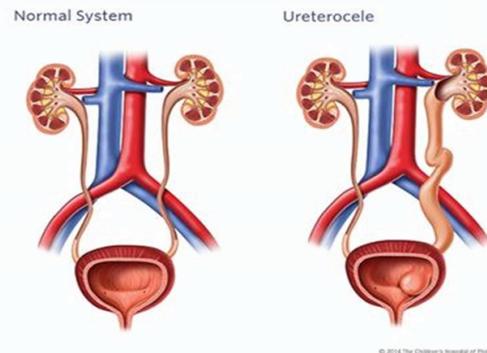
- **Blockage:** this may occur in the kidney, in the bladder or in the urethra
- **Reflux:** this occurs when the area between the bladder and the ureter does not function properly, allowing urine to flow back up to the kidney when the bladder fills or empties. Most children (75%) outgrow this during childhood but will need daily antibiotic treatment to prevent kidney damage usually in the first year or until they outgrow the reflux
- **Duplications:** approximately one percent of the population have two ureters attached to one kidney. This is called a duplex collecting system and occasionally these babies will also have a ureterocele (a balloon-like obstruction at the end of one of the tubes)
- **Multicystic kidney:** this is a non-functioning kidney with cysts of varying sizes in it
- **No significant abnormality:** often babies with dilated kidneys have no problems and the dilatation has settled by the time they have their post-natal scan



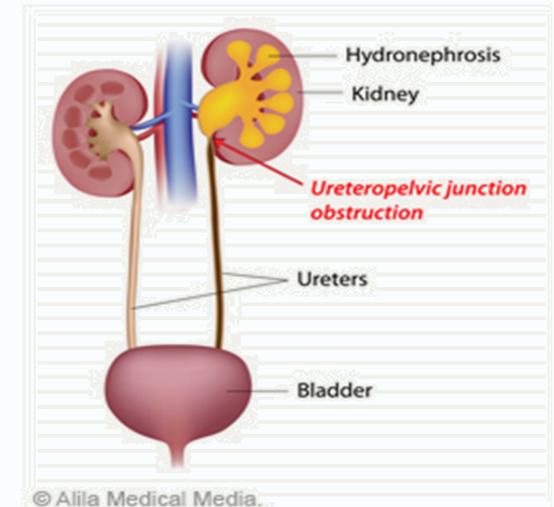
How is Hydronephrosis managed?

You will be referred to your local Fetal Medicine Clinic for assessment. Regular follow-up may be planned in this clinic; however, in most cases you will continue your pregnancy care with your midwife or specialist and the Fetal Medicine Clinic will follow your pregnancy with ultrasound appointments only. It is usual for the Fetal Medicine Clinic to check your baby's kidneys in the third trimester at around 30-32 weeks and to make follow up plans after that.

The amniotic fluid (water around baby) tells us a lot about your baby's kidney function as it is made up of urine that your baby is passing. At each ultrasound visit we will monitor the amniotic fluid levels closely.



If the condition is severe you may be advised to deliver your baby in a hospital with a Neonatal Intensive Care Unit (NICU). A caesarean section offers no advantage to a baby with hydronephrosis, so a normal vaginal delivery is the aim.



What is done to evaluate the Hydronephrosis after the baby is born?

Several studies may be needed to evaluate your baby's kidneys. These are usually done between day 5 and day 7 after baby is born. The first study is an ultrasound scan to look at:

- the path that urine takes from the bladder
- how the kidneys are dealing with excreting urine

Depending on the outcome of this scan further testing may be planned. Your baby may need to be admitted to NICU for observation. Once stable he/she will be transferred to the postnatal ward and remain under the care of the Paediatricians.

Ongoing tests may be planned in the first month or two and then follow up appointments will be arranged at your local hospital's Paediatric Urology Department.