

Urinary Tract Dilation

What is UTD ?

Urinary tract dilation (UTD) is one of the most commonly diagnosed fetal anomalies and is more common in boys than girls. Some studies show that it is found in as many as 1 in every 300 pregnancies. Most cases resolve on their own before delivery.

UTD is diagnosed when there is swelling in the urinary tract found during an ultrasound examination. In the past, it was often known as hydronephrosis.

The urinary tract includes the kidneys, ureters, bladder and urethra. When a baby is diagnosed with UTD, it is because too much urine is building up in the urinary tract or the bladder is larger than normal.

The cause of UTD is unknown, but in many cases, other family members have also had UTD or kidney problems.

How is UTD diagnosed?

UTD can be diagnosed via ultrasound as early as 14 weeks into the pregnancy, though in some cases it is not diagnosed until after delivery.

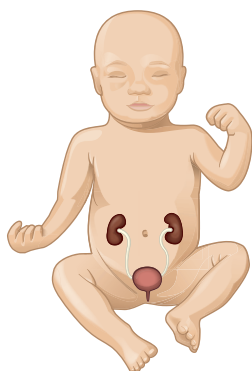
There are two categories of prenatal UTD diagnoses:

UTD A1 (antenatal or prenatal 1): Low Risk

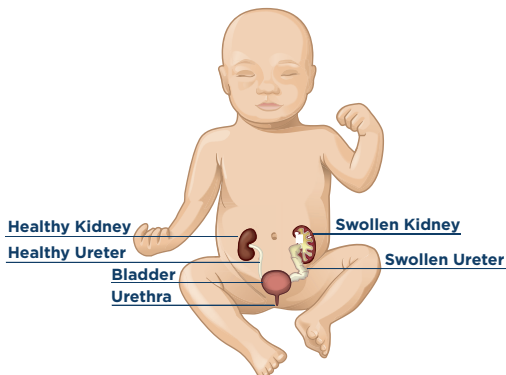
- Only a portion of the kidney is slightly swollen. The baby has a low risk for being born with a kidney or urinary tract defect caused by a fetal anomaly.

UTD A2-3 (antenatal or prenatal 2-3): Increased Risk

- The kidney is severely swollen, or there is swelling in another portion of the urinary tract. This means the baby has an increased risk of being born with a fetal anomaly or problems with a portion of the urinary tract, including the kidneys.



Baby Without UTD



Baby With UTD A2-3

A Cardinal Glennon St. Louis Fetal Care Institute nurse is available 24 hours a day, seven days a week to discuss referrals with physicians and potential families by calling 314-268-4037, option 2.

Phone 314-268-4037, option 2
Toll-free 1-877-SSM-FETL (776-3385)
Web stlouisfetalcare.com
Email fetalcare@ssmhealth.com
Facebook facebook.com/fetaldocs

Urinary Tract Dilation (UTD)

The anomalies related to UTD A2-3 include:

- Vesicoureteral reflux (also known as urine reflux)
- When the valve between the bladder and the ureter does not work properly. This means urine flows back up into the kidney when the bladder fills or empties.
- A duplication of the collecting tube from a kidney
- A non-functional kidney
- A blockage in the ureter
- When urine becomes trapped in the kidney it swells and becomes larger. This blockage can be either up near the kidney or down near the bladder
- A blockage of the urethra as it exits the bladder. The most common blockage in this area is called Posterior Urethral Valves. Most of these blockages occur in boys. Although this is technically Lower Urinary Tract Obstruction (LUTO), the kidneys and ureters are almost always affected as well.

How is UTD handled during pregnancy?

Except in extreme cases, there are no fetal treatments specifically for UTD, but consistent monitoring is needed. If another kidney or urinary tract anomaly such as Lower Urinary Tract Obstruction (LUTO) is suspected, fetal treatments may be an option.

Babies with UTD A1: Low Risk

- If your baby is prenatally diagnosed with UTD A1, an additional ultrasound will be done about 32 weeks into your pregnancy.
 - If the ultrasound shows that there are no longer any signs of UTD, then no additional follow-up is necessary.
 - If UTD A1 is still present but has not gotten worse, then it is recommended that your baby have a urinary tract ultrasound around four weeks after delivery, and another six months later to monitor the UTD. It is important for the first ultrasound to be done more than 48 hours after delivery for more accurate results.
 - If the UTD has progressed to level UTD A2-3, then additional care will be needed.

Babies with UTD A2-3: Increased Risk

- If your baby is prenatally diagnosed with UTD A2-3, ultrasounds may be done every four to six weeks to monitor the development of the urinary tract. These ultrasounds help the medical team monitor the baby's growth, kidneys and amniotic fluid levels.
- At the SSM Health Cardinal Glennon St. Louis Fetal Care Institute you will meet with a SLUCare maternal-fetal medicine specialist (high-risk OB/GYN), along with a pediatric nephrologist (kidney specialist) and/or pediatric urologist (urinary tract specialist) who will monitor the progress of your baby, review test results, answer any questions you may have and help you prepare for delivery.
- It is important for babies with UTD A2-3 to be delivered at a medical center where there is access to a team of pediatric urologists and nephrologists, along with an established Neonatal Intensive Care Unit (NICU).

How will UTD impact my delivery?

Babies with UTD are typically born via a vaginal delivery. However, a mother or baby's unique situation is also important in determining the route of delivery: vaginal or Cesarean.

What can I expect when my baby is born with UTD?

If your baby is diagnosed with UTD before delivery, an ultrasound will be performed after they are born. The results of this ultrasound will help determine the course of treatment for your baby, which may change slightly from what was recommended before delivery.

The three levels of UTD after delivery and the recommended treatments are:

UTD P1 (Postnatal or after delivery level 1): Low Risk

- Follow-up ultrasounds one to six months after delivery
- Possible VCUG (voiding cystourethrography)

UTD P2 (Postnatal or after delivery level 2): Intermediate Risk

- Follow-up ultrasound one to three months after delivery
- Possible VCUG (voiding cystourethrogram)
- Possible antibiotic prophylaxis and possibly a nuclear medicine xray study that helps quantify function of the kidneys and degree of obstruction if present.

UTD P3 (Postnatal or after delivery level 3): High Risk

- Follow-up ultrasound within one month of delivery
- VCUG (voiding cystourethrogram)
- Likely antibiotic prophylaxis and a nuclear medicine xray study that helps quantify function of the kidneys and degree of obstruction if present.

UTD often heals on its own after a baby is born. In some cases, a surgery will be necessary to restore the flow of urine. Typically, babies born with UTD show no lasting effects of the condition. A SSM Health Cardinal Glennon Children's Hospital pediatric urologist will help you determine the best course of treatment for your little one after delivery.