

# Ureteropelvic Junction (UPJ) Obstruction

## What is Ureteropelvic Junction (UPJ) Obstruction?

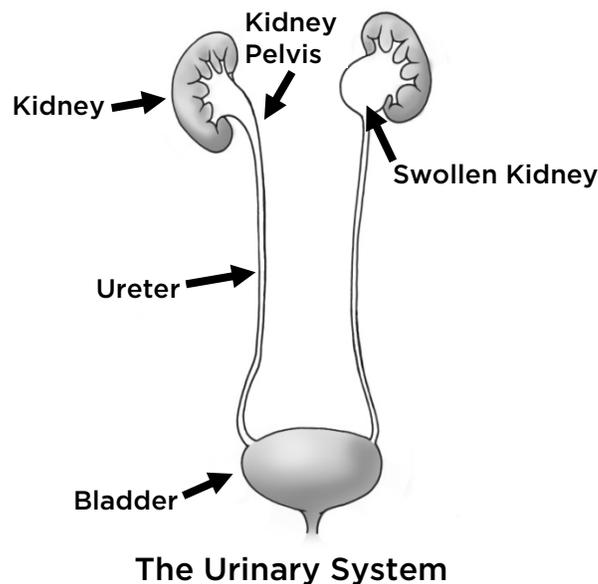
Ureteropelvic junction (UPJ) obstruction is a blockage or narrowing between the kidney pelvis and the ureter. UPJ obstruction causes the pee (urine) to back up in the kidney. When urine backs up in the kidney, the kidneys are no longer able to filter blood, remove waste products and make urine. UPJ obstructions can happen on either or both kidneys.

## What is the function of the kidneys?

Kidneys filter blood and make urine. Urine drains from the kidney, to a funnel called the kidney pelvis, down tubes called ureters and into the bladder where the urine is stored until it is emptied.

## What causes UPJ obstruction?

The exact cause of UPJ obstruction is unclear. There is nothing the parents did or did not do during pregnancy that causes UPJ obstruction before a child is born. Sometimes a UPJ obstruction is caused by blood vessel that crosses over the ureter too tightly.



## How common is UPJ obstruction?

About 1 in 1,500 children have UPJ obstruction from birth (congenital). UPJ obstruction is one of the conditions that can cause hydronephrosis, which is the most common condition found on prenatal ultrasound.

### To Learn More

- Urology  
206-987-2509
- Ask your child's healthcare provider
- [seattlechildrens.org](http://seattlechildrens.org)

### Free Interpreter Services

- In the hospital, ask your nurse.
- From outside the hospital, call the toll-free Family Interpreting Line, 1-866-583-1527. Tell the interpreter the name or extension you need.

### What are the symptoms of UPJ obstruction?

Sometimes there aren't any outward symptoms of UPJ obstruction, and it is only found when an ultrasound shows that the kidneys are swollen. This is called hydronephrosis (see our handout "Hydronephrosis" [seattlechildrens.org/pdf/PE1320.pdf](http://seattlechildrens.org/pdf/PE1320.pdf)).

Some children may experience back or side (flank) pain, blood in the urine (hematuria) or a urinary tract infection (UTI). Some children experience pain that comes and goes. This can be made worse if they suddenly increase the amount they drink because the kidney cannot drain out the extra fluid that is building up.

### How is UPJ obstruction diagnosed?

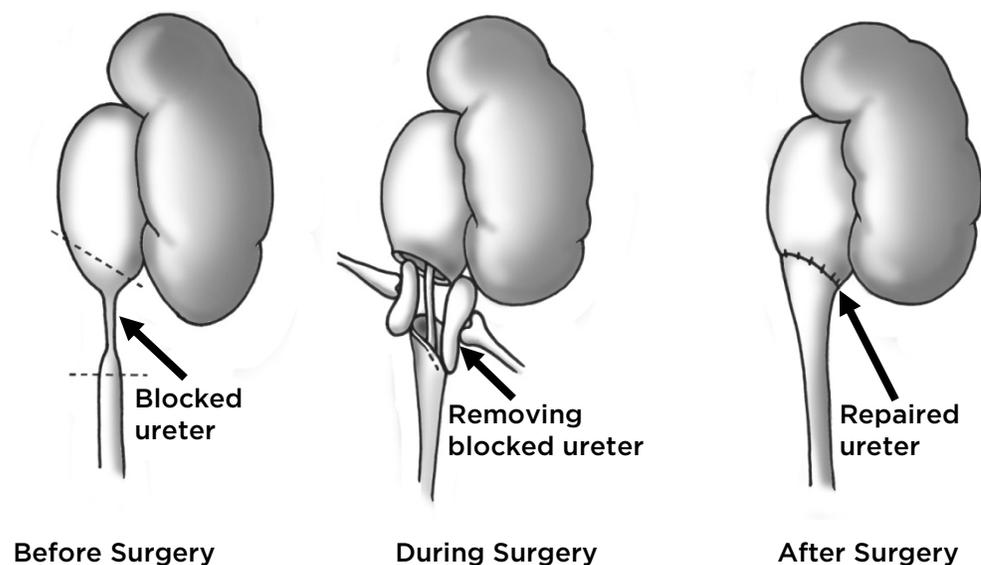
UPJ obstruction is diagnosed by a study called a Lasix Renogram. This is usually done after an ultrasound has shown swelling in the kidney (hydronephrosis). A Lasix Renal Scan shows how well the kidneys are working and if there is a blockage (see our handout "Lasix Renal Scan" [seattlechildrens.org/pdf/PE677.pdf](http://seattlechildrens.org/pdf/PE677.pdf)). Additional studies may be recommended to look for urinary reflux (see our handout "Urinary Reflux" [seattlechildrens.org/pdf/PE181.pdf](http://seattlechildrens.org/pdf/PE181.pdf)).

### How is UPJ obstruction treated?

The treatment for a UPJ obstruction depends on how much the ureter is blocked. Blockages that are mild, appear to be stable or are improving over time will be monitored with ultrasounds.

Blockages that are more serious or worsening can cause permanent kidney damage. These obstructions require surgery to remove the portion of the blocked ureter. The surgery is called a pyeloplasty.

Your surgeon will discuss if an open procedure or laparoscopic surgery is recommended for your child (see our handout "Laparoscopic and Robotic Surgery" [seattlechildrens.org/pdf/PE673.pdf](http://seattlechildrens.org/pdf/PE673.pdf)).



**Surgery called a pyeloplasty to remove UPJ obstruction**

### What can I expect after surgery?

Children will need to stay in the hospital for a number of days after surgery. A tube called a stent may be placed in the ureter at the time of surgery to keep the ureter open and draining while it heals. Stents are temporary and need to be removed 4 to 6 weeks after the surgery.

We will remove the stent either in clinic or under a brief anesthesia. Talk with your surgeon about what will work best for your child. Removing the stent is a brief day surgery. (see our handout “Ureteral Stent” [seattlechildrens.org/pdf/PE1949.pdf](http://seattlechildrens.org/pdf/PE1949.pdf).)

Your urologist will give you a follow-up plan. For the first several months, your child will need ultrasound checkups often. After that, a yearly ultrasound is usually needed to watch kidney growth throughout their school-age years. Children with kidney damage may be referred to the Nephrology Clinic.