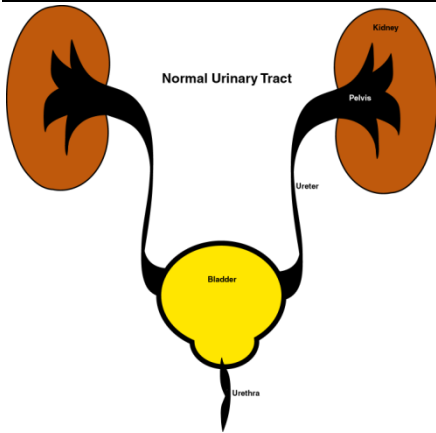


Congenital Urinary Tract Obstruction

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What is urinary tract obstruction?

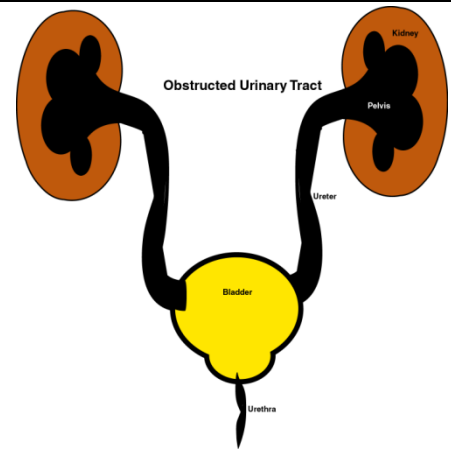


The normal urinary tract starts with the kidneys that are attached to the bladder by tubes called ureters. The very top part of these ureters that falls within the kidney is

called the pelvis of the kidney. Urine exits the bladder through a single tube, the urethra.

When the urinary tract is blocked, the portions obstructed appear enlarged on ultrasound or other studies.

A number of problems can block the urinary tract on both sides or just on one. Sometimes the tubes are blocked during development, but open up again and just look bigger. If you blow up a balloon and let the air out, it never looks as tight as it did before it was first blown up.

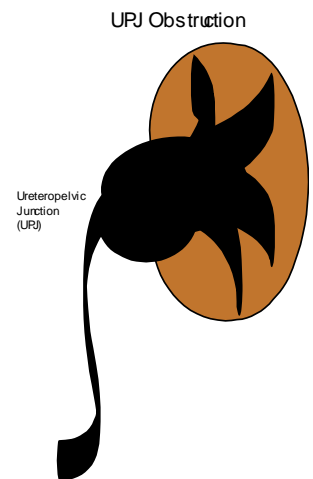


How is obstruction diagnosed?

Ultrasound usually first shows an obstruction in the urinary tract. The next test performed will generally be a voiding cystourethrogram (VCUG). In this study, a catheter is placed in the bladder and it is filled with dye. Xrays are then taken while the bladder empties to see if dye backs up toward the kidneys, a condition called vesicoureteral reflux (VUR or reflux). As dye leaves the urethra, a condition in boys called posterior urethral valves (PUV) can be diagnosed.

Nuclear scans may also be necessary for the diagnosis. These tests start with an intravenous line through which a small amount of radioactive tracer is injected (do not worry; it is less

radiation than a chest xray). A special camera then looks at the kidney as the tracer enters the urine. A drug called furosemide may be used to see if the urinary tract is blocked or just enlarged. This test may reveal an obstruction at the ureteral pelvic junction, where the pelvis within the kidney becomes the ureter.



How is obstruction treated?

Treatment of obstruction depends on the type of blockage. Posterior urethral valves require removal of the blockage. Reflux may require no treatment. It may also be managed with prevention of urinary tract infections or with surgical repair of the reflux. Many UPJ obstructions improve over time; if they worsen, surgery may be needed.

Finally, if no true blockage is found, no treatment will be needed, although follow-up of kidney growth with annual ultrasound may be in order. Urologists perform surgery on the urinary tract. Your nephrologist or primary care doctor will refer you to a urologist if surgical repair of the obstruction may be necessary.