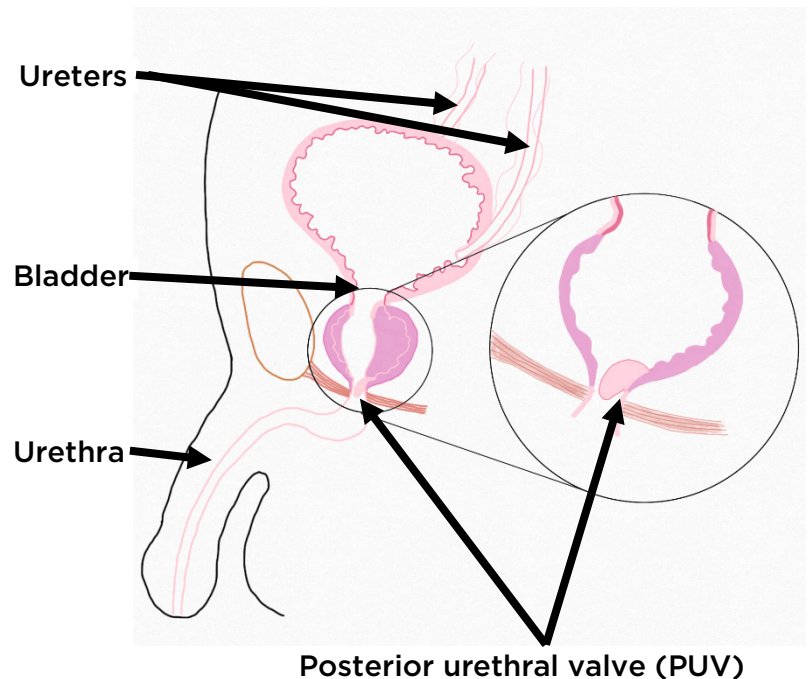


Posterior Urethral Valves (PUV)

This handout explains diagnosis, symptoms, treatment, and care at home for a posterior urethral valve (PUV).

What is a PUV?

- Posterior means back and the urethra is the tube where pee (urine) comes out. A PUV is a small piece of tissue in the urethra of children born with a penis. The piece of tissue (valve) partially or completely blocks the flow of urine from an unborn child's (fetus's) bladder. It develops in the early weeks of pregnancy.
- This can cause the urinary tract to become dilated (hydronephrosis) and can cause damage to the urinary tract (kidneys, ureters and bladder).
- Children with PUV will need lifelong care.



How is PUV diagnosed?

Usually, we diagnose PUV before your baby is born, if your baby has:

- A kidney bladder ultrasound of your developing baby (fetus) finds hydronephrosis in 1 or both kidneys.
- There is less amniotic fluid in the womb. After 18 weeks of pregnancy, amniotic fluid is mostly your baby's urine. If there is less urine draining from your baby's bladder (due to partial or complete urine flow obstruction), the amniotic fluid level will be less than normal.

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To Learn More

- Urology
206-987-2509
- Ask your child's healthcare provider
- seattlechildrens.org/patient-education

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.



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Sometimes we diagnose PUV after your child is born using several tests.

- We use a test called a voiding cystourethrogram (VCUG). It takes x-ray pictures of the bladder and urethra using a dye called contrast.
- A kidney bladder ultrasound assesses the health and dilation of the kidneys and bladder.
- Blood tests helps us know how well your child's kidneys are working.

What are the signs and symptoms of PUV?

Before your baby is born:

- They may have dilated or wide kidney(s) and a large bladder.
- There may be lower than expected levels of amniotic fluid.

After birth, your child may have some or all of the following;

- Repeated urinary tract infections (UTIs)
- Difficulty peeing, pain while peeing or a weak pee stream
- Poor growth and slow development
- High blood pressure
- Difficulty toilet training
- Bedwetting accidents past the usual age of toilet training (after 7 years old)

How do we treat PUV?

- Our multidisciplinary clinic provides expert care for all children with PUV and other related bladder outlet obstruction problems.
- After your baby is born, it is important to drain the bladder and reduce pressure on the newborn kidneys. The surgeon will remove the small piece of tissue (valve), so the urine can drain from the bladder. The surgery is called valve ablation. We place a urinary catheter to allow the bladder to drain freely. Valve ablation surgery involves a small camera called cystoscope. For more information, read our handout "Cystoscopy: Care After Procedure."
seattlechildrens.org/pdf/PE016.pdf
- A vesicostomy (vess-i-COSS-tom-ee) surgery makes an opening from the bladder to the outside of your child's body. This opening is in the belly (abdomen), just below the belly button (navel). It allows pee (urine) to drain if it doesn't leave the bladder normally. For more information, read our handout, "Vesicostomy."
seattlechildrens.org/pdf/PE4098.pdf
- Less commonly, we may need to perform a surgery called ureterostomy. The surgeon disconnects the ureter(s) from the bladder and connects it to the abdomen wall. The urine then drains freely out of the kidney through a small opening on your child's lower belly (torso). The urine then drains into an external bag.
- As a routine step, we also recommend your baby have a surgery that removes the foreskin (circumcision).

How do I care for my child with PUV?

Children with PUV need lifelong specialized care.

How PUV affects your child depends on when the PUV was diagnosed and how much impact the PUV had on the health of your child's bladder and kidney(s). Your child with PUV may experience some or all of the following medical issues:

- Excess urine in the kidney(s) that causes dilate (hydronephrosis)
- Breathing problems related to immature lungs
- Backward flow of urine from the bladder into the kidneys (vesicoureteral reflux)
- Loss of kidney function
- Urinary tract infections (UTIs)
- Dehydration and excessive thirst related to the kidneys inability to make (concentrate) normal urine
- Bladder dysfunction. Some children will learn how to use urinary catheters to help them to completely empty their bladder.

When do I call?



Monday to Friday, call the Urology Clinic at 206-987-2509 for questions or any of the concerns listed below. Send MyChart messages for non-urgent questions.

Nights, weekends and holidays, call 206-987-2000 and ask for the urology resident on call for urgent concerns from the following list:

- Fever higher than 101.5° F (38.6° C) for more than 24 hours
- Blood in pee (it appears pink or red)
- Your child has pain that can't be controlled by the medicine prescribed
- Cannot pee for a span of 8 hours after surgery
- Vomiting 4 or more times in 12 hours