

## VESICOUTERETAL REFLUX (VUR)

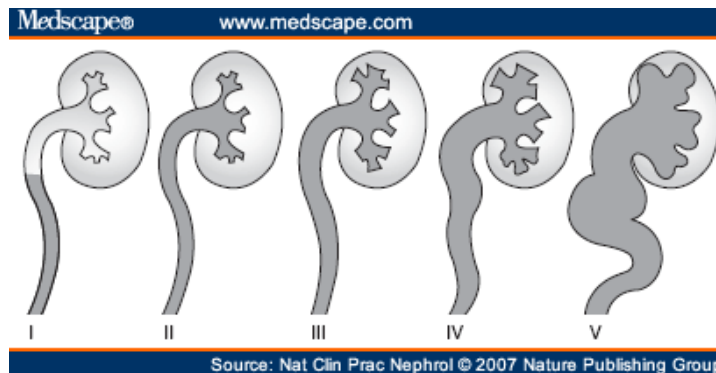
### What is VUR?

Vesicoureteral reflux (VUR) is an condition due to the backwards flow of urine. Normally, urine flows from the kidney, through tubes called the ureters, into the bladder, and through the urethra out of your child's body. VUR occurs when some urine from the bladder flows back up the ureters, toward the kidney, when your child urinates. The backward flow of urine can lead to kidney damage or frequent urinary tract infections. VUR itself causes no symptoms.

### How is it diagnosed?

VUR is most often recognized as part of the evaluation for a urinary tract infection in an infant or young child. It is diagnosed with a voiding cystourethrogram (VCUG). The test is performed by placing a small tube called a catheter into your child's bladder and injecting a small amount of dye is placed into your child's bladder, along with enough liquid to fill the bladder. Then x-rays are taken while your child is urinating, to look for backwards flow of urine towards the kidneys.

### VUR Grades



### My child has had an UTI, do they have VUR?

If your doctor is worried about VUR, they will order a kidney and bladder ultrasound first. If this is normal, then a VCUG is not needed. Your infant should have a ultrasound after their first febrile UTI. Your older child may need further investigation if they have recurrent UTIs.

### Treatment

Most cases of VUR will resolve spontaneously on it's own by age 6-7 years. However, sometimes treatment is indicated to prevent kidney damage.

- Antibiotic prophylaxis (daily low dose antibiotic)
  - Not needed for grade 1, 2 or 3
  - Sometimes recommended for grade 4 & 5
- Surgery
  - Referral to a urologist may be suggested if the child's reflux is severe or there are repeated infections.
  - STING procedure is commonly used and involves injecting material near the ureters to prevent the backwards flow of urine.