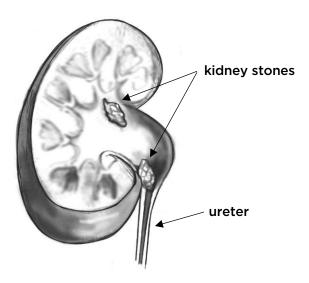
Kidney Stones

What are kidney stones?

Kidney stones are solid pieces that form in pee (urine). They can also be called urinary stones.

The stones can be in any part of the urinary tract. The most common places to find stones are in the kidneys, which filter the urine, or in the ureters, which drain the urine from the kidneys to the bladder.

There are different kinds of stones. Your child's healthcare provider may recommend you do a test at home to find out which type of stones your child has. The test involves collecting your child's urine for 24 hours.



Kidney with 2 kidney stones

How do I know my child has kidney stones?

Your child may have 1 or more of the following symptoms:

- Pain in their upper back or side
- Throwing up (vomiting) due to the pain
- Pain with peeing (urinating)
- · Blood in the urine
- · Infection in the urine

Your provider can order X-rays, ultrasounds or a CT scan (computerized tomography) to help diagnose kidney stones.

To Learn More

- Urology 206-987-2509
- Nephrology Clinic 206-987-2524
- Ask your child's healthcare provider
- · 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.



How did my child get kidney stones?

There may be too much of a certain substance in your child's urine. The substance can form crystals, which become solid and make stones. Children with stones often have a parent or relative who also has had stones.

What is the treatment for kidney stones?

Some people will pass or pee out small stones on their own. Your child's doctor may give you a special strainer for your child to pee through. The strainer will catch the stone so we can examine the stone in the lab. A doctor called a urologist may do surgery to remove the stone. There are different types of surgery to remove stones:

- Lithotripsy (shock wave or laser) uses focused energy waves to break up the stone into smaller pieces, which your child will pee out. This procedure does not pierce the skin (non-invasive).
- **Cystoscopy** uses a small, tool with a camera, which can break up the stone or grab and remove it. This tool goes into the hole where pee comes out (urethra).
- The urologist may remove the stone through the skin (percutaneous).
 The doctor makes a small cut into your child's body where the stone is and pulls it out.

Sometimes, a small tube called a stent is left in the ureter to help it drain urine after surgery. This stent is usually removed in the operating room after 6 weeks. See our handout "Ureteral Stent."

seattlechildrens.org/pdf/PE1949.pdf

How can my child prevent stones from happening again?

- Your child should drink lots of water to prevent stones.
- Depending on the type of stone your child has, the doctor may prescribe medicine or suggest changes to what your child eats or drinks to help prevent stones.
- Your child may meet with a kidney doctor (nephrologist) a dietitian or both to discuss managing and preventing stones.
- If your child has reoccurring stones, we may refer them to the Stone Clinic for ongoing treatment by a urologist, kidney doctor (nephrologist) and dietitian.
- You can read more about diet tips to prevent stones in our handout "Kidney Stone Diet."

seattlechildrens.org/pdf/PE1051.pdf