

## Urinary Stones

### What are urinary stones?

Urinary stones are crystals which collect together and form in the urine. These are called kidney stones. They can occur in any of the urinary tract organs such as the kidneys, the bladder, and the ureters (tubes that connect the kidneys to the bladder.) The medical term is nephrolithiasis or urolithiasis.

### What are the symptoms of urinary stones?

- Pain in the belly or back
- Blood in the urine
- Difficulty passing urine or urinating frequently
- Nausea or vomiting

### Why do stones form?

There are many reasons stones can form:

- Low urine flow (not making enough pee)/dehydration
- Too much of certain salts in the urine
- Family history/genetics
- Certain medicines

### How are stones diagnosed?

- Ultrasound
- CT scan
- Xray

### What is the treatment for stones?

- The most important treatment is to **drink lots of water. Drinking water helps prevent stones.** It also helps wash out tiny stones before they get any bigger.
  - Preschool children: 1 liter or more per day (33 ounces or 4 cups)
  - Children 5-10 years of age: 1.5 liters or more per day (50 ounces or 6 cups)
  - Children greater than 10 years old: 2 liters or more per day (66 ounces or 8 cups)
- Eat a low sodium(salt)-diet to prevent stones (less than 2300 mg per day)
- Eat more fresh fruits and vegetables to prevent stones
- If lab tests show what type of stones your child has, your doctor may recommend some changes in what you eat. The doctor may start a medication to help prevent stones. It depends on what type of stones you have.
- Most patients pass stones on their own but if you have a very large stone or stone that blocks urine flow, the doctor may refer you to a specialist called a urologist to help remove it.

### When should I call my doctor?

Call your doctor right away if:

- You have severe pain not helped by home pain medications, fever or vomiting.
- You can't pass urine.
- You have other questions or concerns.

*Modified by UNC Kidney Center June 2017, with permission by Robert S. Gillespie Copyright 2007.*

