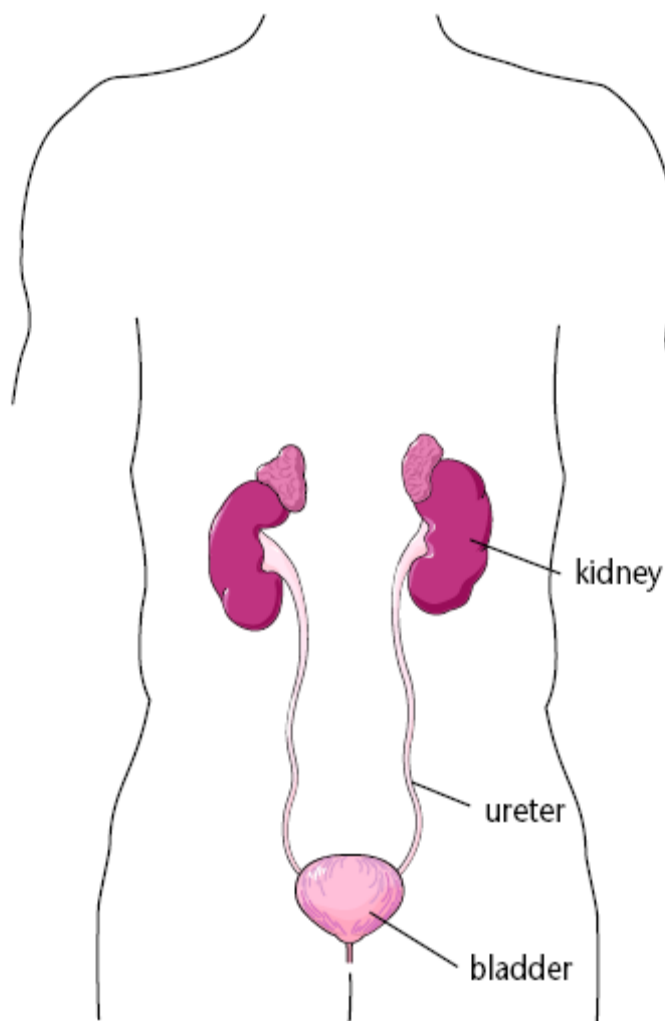




# Kidney Stones



## General Information

Kidney stones (medical word is renal calculi) are lumps of crystals which usually form in the kidneys from material in the urine. Kidney stones often are the result of diet, low liquid intake, heredity, certain medicines, or related to other diseases. Since there are different types of stones and reasons why stones develop, it is important to have the stones tested. Then treatment to prevent future ones from forming can be considered based on the results of the tests.

Stones may be present for years but usually only cause pain when they pass from the kidney into the narrower tube (ureter) which carries urine to the bladder. (See diagram) Sometimes stones will cause blood to be seen in the urine or to be found when the urine is tested.

Some people have only one bout with kidney stones and others are troubled with repeated episodes over weeks or years. Ask your family doctor or specialist (urologist) how to prevent future stones.

### **Why Do We Worry About “Stones”?**

1. Stones usually cause pain.
2. Stones may cause infection.
3. Stones sometimes cause kidney damage if there is a “blockage” over time.

### **While You Are in the Emergency Department .....**

Your nurse may have placed a needle (called an intravenous) in your arm so pain medicine could be given to you as needed. The intravenous also gave you extra fluid to encourage the stone to move from your ureter and into your bladder. Blood tests are done to check on how your kidneys are working. A urine test checks for blood and for infection.

A special X-ray called a CT Scan will show the stone and its location. It takes about 10-20 minutes.

You may stay in the Emergency Department for hours while staff try to relieve your pain. Once the stones pass from your ureter to your bladder, the pain will be minimal - like someone punched you in the back on the same side as your pain was originally. This feeling may last for several days but usually passes without special treatment.

Often people do not pass their stones in the Emergency Department. In most cases, patients are discharged with pain medicine and follow up with their family doctor or a urologist (a specialist who looks after patients with this problem). You may be asked to strain your urine for a short period of time. Hopefully, a stone will be found. This is important because your family doctor can arrange for special testing of the stone. The test results help to determine your treatment to prevent the build up of future stones. Stones may never be found in the strained urine even in people who have many bouts of pain. In some cases, when the stone does not pass, you may need to be admitted to hospital to have your pain controlled or to have the stones removed in the Operating Room by the urologist. The urologist may use a machine which uses sound waves to break up the stones. This is called “lithotripsy”.

This is a short explanation of some of the reasons for admission. If you are admitted to hospital, your urologist and the nurses on the unit will give you the details of tests and procedures planned to help you.

## **Discharge Instructions**

1. If you were given pain medicine in your intravenous, you should not drive or operate machinery or drink alcohol for 24 hours. You will need a drive home when you are discharged from Emergency today. Someone must stay with you for 8 hours in case you need help.
2. If you were given new medicine for pain to take at home, ask your nurse/pharmacist if it is alright to drive, operate machinery, or drink alcohol.
3. Take your pain medicine as ordered by the emergency doctor. Remember the pain should be minimal – like someone punched you in the back on the same side as your original pain.
4. Drink extra fluids (about 12 eight ounce glasses each day). Most of this (over half of this) should be water.
5. Strain your urine using a strainer. Use a paint or tea strainer from your hardware store. Your family doctor can suggest when to stop this.
6. If this was your first stone, place any stones you find in a clean, dry container (no special solutions are needed). This should be taken to your family doctor who will arrange to have the stone tested.

### **Return to the Emergency Department if:**

1. Your temperature is up (38.5° C or 101° F).
2. Your pain is not helped by the medicine prescribed.
3. You start to vomit.

## **Follow up**

- Make an appointment to see your family doctor as advised by the emergency doctor.

