Kidney Stones

Kidney stones (renal calculi) are lumps of crystals which form in the kidneys from material in urine (pee). Kidney stones often happen because of diet, not drinking enough fluids, heredity (runs in families), certain medicines, or certain diseases.

Since there are different types of stones and reasons why stones develop, it is important to have the stones tested. Based on the results of the tests, we can consider ways to stop new stones from forming.

Stones may be in your body for years but usually only hurt if they move from the kidney into the narrower tube (ureter) which carries urine to the bladder (see picture on the next page). Sometimes stones cause blood in the urine, or blood is found when the urine is tested.

Some people only have kidney stones once. Other people may have kidney stones many times over weeks or years. Ask your health care provider or urologist (doctor who specializes in the urinary system) how to prevent future stones.
Why are kidney stones a problem?
1. Stones usually cause pain.
2. Stones may cause an infection.
3. Stones may cause kidney damage if there is a blockage over time.

What will happen in the Emergency Department?
Based on the description of your pain and the results of your blood and/or urine tests, your health care team will diagnose you.

Your health care provider may put a needle (called an intravenous or IV) in your arm to give you pain medicine, as needed. The IV will also give you extra fluid to help the stone move from your ureter to your bladder.
Blood tests will be done to check how your kidneys are working. A urine test will check for blood and signs of infection. A special X-ray called a CT scan will show the stone and where it is. The scan takes about 10-20 minutes.

You may stay in the Emergency Department while staff manage your pain. Once the stone(s) passes from your ureter to your bladder, the pain will be less. This feeling may last for several days and usually goes away without special treatment.

Often people do not pass their stones in the Emergency Department. In most cases, patients go home with pain medicine and follow up with their health care provider or a urologist.

You may be asked to strain your urine for a short period of time. Hopefully, you will find a stone. This is important because your health care provider can arrange for special testing of the stone. The test results can help to figure out how to prevent the buildup of future stones. Some people never find stones in their urine even if they have a lot of pain.
What will happen if I don’t pass a stone?
In some cases, if the stone does not pass, you may need to be admitted to hospital to have your pain controlled or to have surgery to remove the stones.

The urologist will remove your stones in the Operating Room (OR). They may use a machine that uses sound waves to break up the stones. This is called lithotripsy. If you are admitted to the hospital, your urologist and the nurses on the unit will give you the information about the tests and procedures planned to help you.

What will happen when I go home?
• If you were given pain medicine in your IV, do not drive, operate machinery, or drink alcohol for 24 hours. You will need someone to drive you home after you leave the Emergency Department. Someone must stay with you for 8 hours in case you need help.
• If you were given medicine for pain to take at home, ask your nurse or pharmacist if it is OK to drive, operate machinery, or drink alcohol while taking this medicine.
• Take your pain medicine as told by your health care provider in the Emergency Department. Remember, the pain should be less than when you came to the Emergency Department.

• Drink extra water (about 2-3 litres each day).

• Strain your urine using the strainer given to you. Ask your health care provider when you can stop doing this.

• If this was your first stone, put any stones you find in a clean, dry container. No special solutions are needed. Take the container to your health care provider. They will arrange to have the stone(s) tested.

**Return to the Emergency Department if:**

• Your temperature is high (over 38.5°C / 101°F).

• Your pain does not go away after taking the medicine prescribed to you.

• You start to vomit (throw up).

**Followup**

• Make an appointment to see your health care provider.
Looking for more health information? Find this pamphlet and all our patient resources here: http://library.nshealth.ca/PatientGuides

Contact your local public library for books, videos, magazines, and other resources.

For more information, go to http://library.novascotia.ca

Connect with a registered nurse in Nova Scotia any time: call 811 or visit https://811.novascotia.ca

Learn about other programs and services in your community: call 211 or visit http://ns.211.ca

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The information in this pamphlet is to be updated every 3 years or as needed.