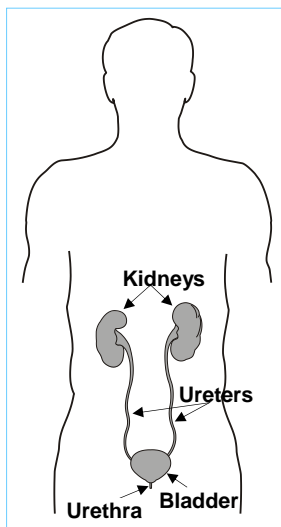


Emergency Services

Kidney Stones (Renal Colic)

What are kidney stones?

Kidney stones are made of minerals and salts that stick together and form crystals in your urine. The stones can be as small as a grain of sand or as large as a marble. Some are smooth, but most are jagged. The stones can stay in your kidney or move out of your body when you urinate.



The most common cause of kidney stones is not drinking enough water. This makes your urine more concentrated. Minerals and salts can then stick together forming stones.

Some health conditions can also increase your risk of having kidney stones. These include:

- gout
- diabetes
- obesity
- crohn's disease
- enlarged parathyroid gland
- previous stomach or intestine bypass surgery

If you have had a kidney stone before, or have family members who have had kidney stones, you are more likely to have one.

What does having kidney stones look or feel like?

If you have a kidney stone, you might:

- have pain in your back or side that spreads to your groin
- see blood in your urine (pee)
- feel the need to urinate but can't
- see small stones in the toilet after urinating
- feel sick or vomit

Some people do not have any pain while other people have a lot of pain. The pain is caused by the size and shape of the stone, the stone moving between the kidney and the bladder, or the stone getting stuck somewhere between the kidney and the bladder.

How are kidney stones treated?

Most stones pass out of the body without any need to see a doctor. Your doctor decides with you what pain medicine is best to keep you comfortable as you pass the stones. You might be given over-the-counter medicines such as acetaminophen or ibuprofen. If they cannot keep you comfortable, your doctor might give you narcotic pain medicines.

Your doctor might also give you medicine to help the stones pass. If the stone is too big to move out on its own or if it gets stuck on the way out, you might need to see a kidney doctor (urologist). The doctor talks to you about which treatment is best for you.

Remember: If we gave you narcotic pain medicine (such as morphine) in the hospital and/or we gave you a prescription for a narcotic pain reliever (such as Tylenol with codeine), you **must not** drive or operate machinery for 12 hours after taking the medicine.
Do not mix your narcotic pain medicine with alcohol or other narcotic medicines.

How to take care of yourself at home

Take regular pain medications as directed by the doctor.

We might ask you to strain your urine. We will give you a strainer and teach you how to use it. Keep the stone or stones that pass and bring it to your nearest laboratory. You might need an imaging test to make sure the stones have passed.

Make an appointment to see your family doctor in 2 days. We might ask that you go see a kidney specialist as well.

Drink 8 to 10 glasses of water each day. A good way to do this is to drink one glass of water every hour while you are awake.

Ways to prevent kidney stones

Drink at least 2 litres (8 to 10 glasses) of water each day.

Keep active. Kidney stones are more common if you are not active or sit much of the day.

Eat foods with lots of calcium and vitamin C. Don't use supplements to get your calcium and vitamin C.

Eat less animal proteins (such as red meats, poultry, fish, or eggs) and foods high in sugar or salt.

Try not to eat foods that are high in oxalates. Oxalates can cause kidney stones to form.

Some examples of foods to avoid include:

- chocolate
- beets
- nuts
- tea
- rhubarb
- spinach
- swiss chard
- sweet potatoes

Go to the nearest Emergency Department if:

- You have severe pain that will not go away, even with pain medication.
- You cannot drink water or swallow your medications because you feel so sick.
- You have a fever over 38°C (100.4°F).
- You cannot empty your bladder.

What the words mean

Kidneys (sounds like *kid-nee*) – These bean-shaped organs take waste out of the blood and make urine.

Ureters (sounds like *yer-et-ters*) - These two small tubes carry urine from the kidneys to the bladder.

Bladder (sounds like *blah-der*) – A hollow organ that collects and holds urine until it can move out of the body.

Urethra (sounds like *yer-ee-thra*) - A small short tube that carries the urine from the bladder out of the body.

Urine (sounds like *yer-in*) - The waste fluid made by the kidneys, commonly called 'pee'.

Urinate (sounds like *yer-in-ate*) – The action of moving urine out of the body, commonly called 'going to the toilet' or 'going pee'.

Adapted with permission from 'Kidney Stones – Going Home' (July 2010) by Providence Health Care.