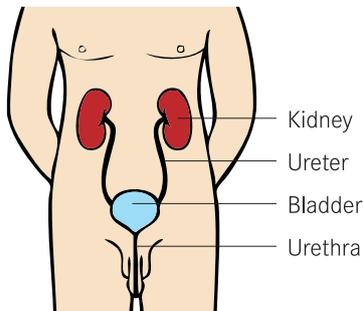


What is a kidney stone?

Kidney stones (the medical term is *renal calculi*) are small hard stones that form in the kidney when the salts in the urine become solid. They can vary in size and location.

Most stones are small and are flushed out in the urine. Some grow over many years to become quite large. Stones can lodge anywhere in the urinary tract and cause severe pain. There can be one or more stones present at any one time.

Anyone can get a kidney stone. One in 10 men and one in 35 women develop a kidney stone in their lifetime. Most occur between the ages of 20 and 60. Some people keep getting kidney stones throughout their lives.



What causes a kidney stone?

Stones can be made of different matter. The most common ones are made of calcium. They form because there is the wrong mix of chemicals in the urine, which allows salts to turn into crystals.

For most people with stones, the exact cause is not found.

You are more likely to have a stone if you drink only small amounts of fluids. This makes the urine more concentrated. If you have a *urinary tract infection* (UTI) this can also lead to a stone forming.

You may be unaware that you have a kidney stone. It is only if the stone blocks the *ureter* (the tube that runs from the kidney to the bladder) that you have problems. When this happens it causes severe pain and is called *renal colic*.

What are the symptoms?

You may feel a strong gripping pain in the back below the ribs, and you may also have pain in your side, groin and thigh.

Other symptoms may include:

- blood in your urine
- nausea and vomiting
- sweating, fever and shivers.

An attack may last many hours. This often settles when the stone has passed into your bladder, which may take some time. Most stones are not painful to pass (once past the bladder) and some people don't even know when this happens.

Treatment

While in the emergency department, you may be given:

- a strong painkiller to ease your pain (such as *Panadeine Forte* or *morphine* through a drip) – **do not drive** home if you feel drowsy or have had morphine
- medication for nausea
- fluids into the vein (*intravenous*) to help flush out the stone
- a urine test to look for infection, blood and crystals
- a blood test to look at the salts in your blood and how well your kidneys are working
- an X-ray or CT scan to see whether there is a stone and check the state of the urinary tract (this may be done as an outpatient).

A doctor may prescribe pain relief such as *Panadeine Forte* (paracetamol and codeine) for you to take home. Some people need anti-inflammatory medications such as *ibuprofen* or *Voltaren*. *Indomethacin* suppositories may be helpful. These are not suitable for everyone. Ask your doctor or health care professional for advice.

Home care

- Drink at least eight glasses of water a day to help flush out the kidney stone.
- If you have pain, take painkillers such as paracetamol or the medication the doctor has prescribed. Check the packet for the correct dose and take only as directed.
- Be guided by your doctor.

What to expect

Most people will pass the kidney stone without any trouble in the next few days to weeks. The time it takes to pass a stone varies from person to person.

A large stone may cause a blockage and you may be referred to an *urologist* (a doctor who specialises in kidney stones) for treatment. A treatment called *lithotripsy* may be used to break the stone up into smaller pieces. Some people need surgery to remove the stone.

If a stone blocks the natural flow of urine this can cause an infection in the urinary tract and antibiotics will be needed.

Prevention

If you have had a kidney stone, there is a higher chance you will have another kidney stone in the future.

- Studies suggest that you can halve your risk of forming another stone by drinking two litres of water a day. If your urine is dark yellow you are not drinking enough.
- You can help prevent a kidney stone by getting prompt treatment for a urinary tract infection (UTI). See your doctor.
- If you have had more than one attack your doctor may arrange tests to check for troublesome acids and minerals in your blood.
- Changes in your diet are only advised for some causes of kidney stones. Please check with your doctor before changing your diet.

Notes:

Seeking help



In a **medical emergency** go to the nearest hospital emergency department or call an ambulance (dial 000).



See your local doctor or health care professional if you have:

- pain that is getting worse despite taking painkillers
- fever, sweats or shivers
- repeated vomiting
- urine that is cloudy or has blood in it
- pain on passing urine
- any other concerns.



For health advice from a Registered Nurse you can call **NURSE-ON-CALL 24 hours a day** on **1300 60 60 24** for the cost of a local call from anywhere in Victoria.*

NURSE-ON-CALL provides access to **interpreting services** for callers not confident with English. Call **1300 60 60 24**.

*Calls from mobile calls may be charged at a higher rate



Want to know more?

- Ask your local doctor or health care professional.
- Visit the **Better Health Channel**
www.betterhealth.vic.gov.au
- Visit **Kidney Health Australia**
www.kidney.org.au

If you would like to receive this publication in an **accessible format**, please phone 9096 0578 or email edfactsheets@health.vic.gov.au



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