

## What can I do to try and prevent kidney stones?

To find out what type of stone you have pass the urine through a fine sieve (e.g. a handkerchief) to collect the stone, taking it to your doctor, and the stone being analysed at the laboratory can be useful in planning therapy and prevention.

- X rays can be done to see where your stones are in your urinary tract
- Blood tests can also be helpful to see if there is a medical cause

From this information you may need to change your diet to help prevent stones forming, but your specialist will advise you if this is the case and may refer you onto a dietician if this is needed.

**Some things you can do to help with kidney stones include (as recommended by the Auckland DHB Kidney Stone Project Group 2016/in collaboration with Urology and Renal Services)**

- Drink enough fluids, so that you are passing more than 2 litres in 24 hours
- Drink at least 3 litres of fluids (more if you exercise heavily or are in hot weather)
- Spread your fluid intake throughout the day and night (all drinks count – water, coffee, tea, milk)
- Drink more low sugar, sugar-free beverages
- Drink beer, wine, spirits in moderation.

## A variety of nutritious food daily is important this can include;

- Plenty of fruits and vegetables
- Grain foods, mostly wholegrains
- Some milk and milk products
- Some legumes, nuts, fish, eggs, poultry, red meat
- Choose and prepare foods that are low in salt with little or no added sugar.
- General guidelines from the Ministry of Health (see below) will benefit most people who are at risk of kidney stones.

<https://www.health.govt.nz/publication/eating-and-activity-guidelines-new-zealand-adults>

Achieve a healthy body weight by making good choices about what you eat and drink and be physically active to achieve and maintain a healthy body weight. Some people may require more specific nutrition care. A dietitian experienced in kidney stone management can provide targeted nutrition therapy based on your type of stone, specific needs and stone risk factors.

## References

1. Auckland DHB Kidney Stone Project Group 2016
2. <https://www.health.govt.nz/publication/eating-and-activity-guidelines-new-zealand-adults>
3. <https://www.southerncross.co.nz/group/medical-library/kidney-stones>
4. <https://www.healthnavigator.org.nz>
5. <https://www.healthinfo.org.nz>

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**0800 KIDNEY (0800 543 639)**

**[www.kidneys.co.nz](http://www.kidneys.co.nz)**

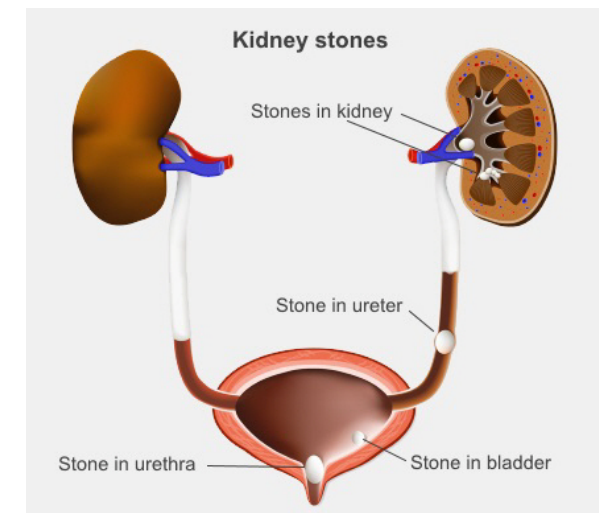
# Kidney Stones

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## Kidney stones

Kidney stones are one of the most common disorders of the urinary tract. Kidney stones form when some waste materials in your urine clump together to form a solid crystal. These can be as small as a grain of sand to as big as a golf ball and can block the flow of urine, cause infections and kidney damage.



<https://www.healthinfo.org.nz>

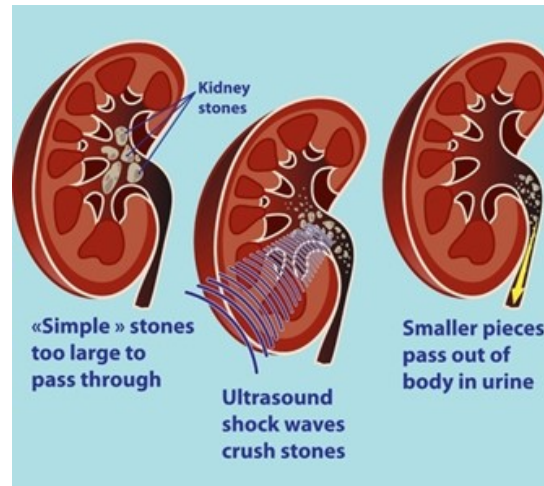
## How do kidney stones form?

The kidneys act as the body's filtering system, the kidneys absorb the good chemicals and minerals and get rid of the unwanted ones in our urine. If certain chemicals and minerals such as calcium oxalate, uric acid or phosphate build up in the kidneys, or in the urine they can form a stone. Calcium oxalate are the most common. Most stones start out small in size and grow larger over time. The stones may stay in the kidney or travel down the ureter into the bladder.

## What are some of the signs that you might have a kidney stone?

Pain is usually the first sign of a kidney stone. The pain usually begins when a stone moves into your urinary tract. This can be a sharp pain in your back, just below your ribs, it can spread around to the front of your body and sometimes towards your groin. Other symptoms include:

- blood in your urine
- nausea and vomiting
- shivers, sweating and fever, cloudy or bad smelling urine if you have an infection
- 'gravel' in the urine, which is made of small uric acid stones
- an urgent need to pass urine



<https://www.healthnavigator.org.nz>

## What are the risk factors for kidney stones?

- Not drinking enough fluid, becoming dehydrated
- Mineral imbalances in your body
- Some medicines used to treat other conditions such as diuretics and corticosteroids<sup>1</sup>
- If you have had a kidney stone, you have an increased chance of getting a second stone.
- If you are male, kidney stones are more common in men.
- Urinary tract infections
- Family history of kidney stones

## How are kidney stones treated?

Often, it's a matter of waiting anywhere between 4-6 weeks for the stone to pass, if the pain is bearable. Pain relief is very effective. The pain relief medication is administered by mouth or injection into the muscle or vein.

Certain medications have been shown to improve the chance the stone will pass, to the toilet.

Some types of stones (e.g. uric acid stones) can be dissolved. Stone can be dissolved by either taking medications by mouth; or a tube being placed through the skin into the kidney and a solution being injected. Most stones do not require surgery. If the stone is too large to pass, or the stone is associated with a urinary tract infection, or the stone blocks the drainage of urine flow, or is growing on serial monitoring either **surgery** or **lithotripsy** will be needed.

## What is the difference between surgery and lithotripsy?

**Extracorporeal Shockwave Lithotripsy (ESWL)** - or lithotripsy for short - uses sound waves transmitted through the skin to break up the stone into pieces that can be passed out in the urine.

Usually the fragments of stone following ESWL are passed in urine normally and so there can be further blood and pain noticed.

Sometimes the stone is too large to break up with ESWL, or not suitable for ESWL, and so surgery is required. Several weeks are usually required to fully recover from major stone surgery.

Your Urologist will discuss the different options with you.