Diet and Kidney Stones

The most common type of kidney stones result from too much calcium and oxalate in the urine. These minerals bind together as crystals, forming stones. The following dietary guidelines can help to prevent kidney stones.

Drink plenty of fluid

Drink more fluid, especially water
- Drinking water helps to flush out the kidneys and dilute stone-forming substances, making stones less likely to form
- Drink at least 2-3 litres, or 10 cups, of fluid daily. At least half of this should be water (soda, mineral, spring or plain tap water)
- Have a cup of fluid (250ml) each hour during waking hours, and a large glass of water before going to bed. Drink a glass of water if you wake up during the night.
- Spread out your fluid intake during the day
- AVOID strong black tea and orange juice, as these are high in oxalates
- Drinking large amounts of sugary drinks (soft drink, cordial) can lead to weight gain. Choose diet or low joule drinks to limit weight gain
- Colas are also high in phosphates which can contribute to stones

Limit salt
- Salt (sodium) increases the amount of calcium in your urine
To reduce salt:
- Buy fresh foods, or foods without salt – fruit, fresh vegetables, fresh meats, chicken, fish, eggs, porridge, rice and pasta
- Most sodium (75%) comes from processed foods. Limit processed foods high in salt, eg. soup, Bonox, processed meats, sauces, gravy, crisps and snack foods.
- “Low salt” or “no added salt” foods are the best choices. Look for a sodium content of less than 150mg per serve as a guideline. Note that some “reduced salt” products can still contain high levels of sodium
- Do not add salt at the table or in cooking

What can I use instead?
- Freshly ground pepper or dry mustard powder
- Lemon juice, lime juice or vinegar
- A sprinkle of dried herbs or chopped fresh herbs
- Garlic, curry, chilli, onion, fresh ginger or spring onions

Avoid foods high in oxalate

Reducing oxalate in your diet helps to reduce the amount of oxalate in your urine.

Foods to avoid are:
- Rhubarb, spinach, silverbeet, beetroot, eggplant, sweet potato, celery and leeks
- Nuts and peanut paste
- Strong black tea and orange juice
- Chocolate
- Wheat bran and wheat germ
- Berries (eg strawberries, blackberries) and dried figs
- Soy sauce and worcestershire sauce
Include adequate calcium in your diet

- Dietary calcium is important for your bones and teeth. A high calcium intake reduces the chance of kidney stones forming.
- **Do not limit dairy foods.** Too little calcium can cause oxalate levels to rise.
- Calcium in the digestive tract binds to oxalate from food and keeps it from entering the blood, and then the urinary tract, where it can form stones.

Include at least 2-3 choices from the following list:

- 250mL milk, eg. Trim, skim, full cream, calcium-fortified soy milk
- 200mL high calcium milk, eg. Physical
- 200g (small tub) yoghurt
- 40g cheese (2 slices)
- 3 scoops ice-cream

Include only a moderate amount of animal protein

- Limit protein from meat, seafood, fish, chicken and eggs to a moderate serve (120-150g) daily (cooked).
  - **Note:** 60g meat = 2 eggs
- High protein reduces citrate, a chemical in urine that prevents stones from forming.

Vitamin Supplements

- Do not take Vitamin C supplements (also known as ascorbic acid and calcium ascorbate)
- Do not take Vitamin D supplements or cod liver oil

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