



What are the five golden rules of stone prevention?

- 1 Drink 2.5–3 litres a day**
Mostly water, spread across the day. The aim is to pass at least 2–2.5 litres of urine a day, and your urine should stay pale yellow. Drink more in hot weather and when you sweat.
- 2 Don't cut out calcium**
A normal intake of 1,000–1,200 mg calcium a day (about 3 portions of milk, yoghurt or cheese) is right. Calcium from food binds oxalate in the gut; restricting it can raise your stone risk.
- 3 Cut down on salt**
Keep salt to no more than 4–5 g a day (about one level teaspoon), including the hidden salt in bread, cheese, pickles and ready meals. Extra salt increases the calcium in your urine.
- 4 Keep animal protein moderate**
Protein should not exceed 0.8–1.0 g per kg of body weight a day (about 56–70 g for 70 kg). A palm-sized portion of meat, chicken or fish once a day rather than at every meal is a good guide.
- 5 More vegetables and fruit, a healthy weight**
Eat a balanced diet rich in vegetables, fruit and fibre; lemons and oranges increase protective citrate in the urine. Cut down on sugary drinks and high-dose vitamin supplements, keep a healthy weight and stay active.

My daily fluid target _____ L	Number of glasses (200 ml) _____	My daily urine target _____
My stone type (analysis result) _____	Date of 24-hour urine test _____	
My doctor's personal advice _____ _____		

Which foods raise the risk of stones, and which help?

Food	Advice	Note
HIGH IN OXALATE		
Spinach, Swiss chard	Limit	Among the foods highest in oxalate. Don't eat large amounts often; boiling and draining the water lowers oxalate. Eat it with yoghurt in the same meal.
Rhubarb	Limit	Very high in oxalate; avoid it if you have had calcium oxalate stones.
Beetroot, beetroot juice	Limit	High in oxalate; have it only occasionally and in small amounts.
Almonds, peanuts, cashews, hazelnuts	Limit	Contain oxalate. Don't eat handfuls every day; salted roasted nuts also add salt.
Tahini, halva, sesame	Limit	Sesame and tahini are rich in oxalate; have them occasionally rather than daily.
Cocoa, dark chocolate	Limit	The higher the cocoa content, the more oxalate; keep to small amounts.
Sweet potato	Limit	High in oxalate; have it occasionally.
Black tea (strong)	Fine in moderation	Contains oxalate, but drinking it in moderation has not been shown to raise stone risk. A few cups of normal-strength tea are fine; avoid very strong tea all day long. Tea counts as fluid but doesn't replace water.
SALTY		
Salt added at the table	Limit	Don't add salt before tasting; take the salt shaker off the table. Use lemon, herbs and spices instead.
Pickles, brined olives and vine leaves	Limit	Brined foods are very salty. Have pickles occasionally and in small amounts; soaking olives in water reduces their salt.
Sausages, salami, cured and processed meats	Limit	Add both salt and animal protein; have them rarely.
Feta-type white cheese, hard and halloumi cheese	Fine in moderation	A source of calcium, but most are salty. Choose lower-salt types; soaking white cheese in water removes some salt.

Food	Advice	Note
Instant soups, stock cubes, ready sauces	Limit	One bowl of instant soup can use up a large share of the daily salt limit; make soup at home with little salt.
Bread, bagels, savoury pastries	Fine in moderation	One of the biggest sources of everyday salt. Eat less and choose wholegrain, lower-salt bread.
Salted seeds, crisps, crackers	Limit	Easy to eat a lot of salt without noticing; choose unsalted versions.
ANIMAL PROTEIN		
Red meat, meatballs, burgers	Fine in moderation	Too much raises calcium and uric acid in the urine and lowers citrate. A palm-sized portion a few times a week.
Offal (liver, kidney, heart, brain)	Limit	Very rich in purines; avoid it if you have uric acid stones or gout.
Chicken, turkey, fish, eggs	Fine in moderation	Good protein sources; eat them in amounts that keep total protein within 0.8–1.0 g per kg.
Anchovies, sardines, mussels	Fine in moderation	Rich in purines; people with uric acid stones should eat them less often. For other stone types moderate amounts are fine.
Protein powders, high-protein diets	Limit	Ketogenic and high-protein diets make the urine more acidic and can raise stone risk; talk to your doctor before starting one.
CALCIUM		
Milk, yoghurt, kefir	Helpful	The main sources of calcium; about 3 portions a day, ideally with meals. Don't add salt to yoghurt.
Ayran (yoghurt drink)	Helpful	Provides calcium and fluid. Make it unsalted or lightly salted; most ready-made versions contain salt, so check the label.
CITRATE, VEGETABLES AND FRUIT		
Lemon juice, unsweetened lemonade	Helpful	Can raise urinary citrate, which inhibits stones. Squeeze lemon into your water; don't add sugar.
Oranges, mandarins	Helpful	A source of citrate and potassium; the whole fruit is better than sweetened juice.
Vegetables and fruit (tomatoes, cucumber, lettuce, courgette, apples, watermelon...)	Helpful	Make the urine less acidic and add to your fluid intake. Low-oxalate ones can be eaten freely.
DRINKS		
Water (tap or bottled)	Helpful	The drink of first choice for stone prevention. Spread it over the day, and have a glass if you get up at night.
Mineral water (bicarbonate-rich)	Fine in moderation	Small studies show it can raise urinary citrate and pH. Some mineral waters are high in sodium: check the label, drink in moderation and don't use it instead of water.
Coffee	Fine in moderation	Moderate coffee and tea are linked with a lower stone risk in large observational studies. Preferably without sugar.
Cola, soft drinks, sweetened juice, iced tea	Limit	Drinks sweetened with sugar or fructose raise stone risk. Cut down and drink water when thirsty.
Beer and other alcoholic drinks	Limit	Do not dissolve or flush out stones; beer contains purines and can raise uric acid. Don't use alcohol to meet your fluid target.
SUPPLEMENTS		
High-dose vitamin C (1,000 mg a day or more)	Limit	Can be converted to oxalate in the body. Don't take effervescent vitamin tablets or high-dose multivitamins regularly unless your doctor advises it.
Calcium supplements	Fine in moderation	Get calcium from food first. If you need a supplement, take it on medical advice and with meals.

This table is general. Advice differs for calcium oxalate, uric acid, cystine and infection stones; a personal diet plan is based on stone analysis and a 24-hour urine test.

This sheet is for general information. Personal advice is set by your doctor based on stone analysis and urine tests.