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DIETARY ADVICE FOR STONE FORMERS

FREQUENTLY-ASKED QUESTIONS

How much do I need to drink?

Drinking enough fluid is the most important aspect of preventing stone formation and will reduce your risk of stone formation by almost one third. Not drinking enough fluid can make you urine concentrated and make stones more likely to form.



Aim to drink 2-3 litres (4-6 pints) of fluid each day (e.g. water, squash, or fizzy drinks). You should aim to keep your urine colourless throughout the day; this equates to a urine output of at least 2 litres (4 pints) per day. In patients with cystine stones, however, an output of 3.5 litres per day is required.

Tea, coffee & alcohol can be consumed in moderation but the majority of your fluid intake should be as above.

In addition, it is helpful to try and drink 1 or 2 glasses of water before going to bed and on rising in the morning.

Should I restrict my protein intake?

Yes. A high intake of animal protein appears to increase the risk of stone formation. Avoid large portions of meat, fish, eggs, cheese and milk. Aim for 4 of the following exchanges each day:

- 50-75g red meat, fish or chicken
- 2 eggs
- ½ pint of milk
- 50g cheese
- 120g yogurt (1 small pot)

2 of the 4 exchanges should be milk, cheese or yogurt to ensure an adequate intake of calcium.

You can replace protein with starchy foods (e.g. bread, potatoes, pasta, fruit & vegetables) to fill you up.

Reducing your protein intake also increases the amount of citrate you excrete in your urine; citrate is a known inhibitor of stone formation.

Example menu plan:

Breakfast: 2 eggs scrambled on toast
Lunch: Sandwich with 50g cheddar cheese & salad
1 apple
Dinner: 1 small chicken breast (approx 75g)
New potatoes
Vegetables
Fruit salad

Should I restrict the amount of salt I take?

Yes. A high salt intake can contribute to calcium stone formation. Do not add salt to your food at the table but use pepper, herbs, spices or vinegar as alternative flavourings. You can, however, add a small amount of salt during cooking.

Foods which contain less than 0.4g (40mg) of sodium per serving are low-salt choices and you should aim to keep your salt intake down to these levels.

Avoid high-salt, tinned, packet and processed foods (e.g. soups, salted crisps or nuts, tinned meats, meat paste, smoked fish and fish paste).

Do oxalates play a part in stone formation?

You need to avoid oxalate-rich foods to reduce the amount of oxalate in your urine. The following foods are high in oxalate:

- Tea (more than 2-3 cups per day)
- Chocolate
- Nuts & peanut butter
- Cocoa & carob
- Strawberries
- Rhubarb
- Celery, spinach & beetroot
- Parsley

It is not necessary to exclude oxalate-rich foods completely; simply eat them in small amounts.

Does calcium restriction help?

Severe calcium restriction can actually be harmful and increase the risk of stone formation because it will result in high levels of oxalate in your urine. If you follow the recommendations above for milk, cheese and eggs, no further action is needed.

The calcium you drink in the water cannot cause kidneys stones and there is no need to restrict your intake of tap water, drink mineral water or purchase a water softener

Should I take vitamin supplements?

Most vitamins are harmless but do not take Vitamin D preparations, including fish oils and multivitamin preparations since they increase calcium absorption.

Avoid Vitamin C supplements because they can increase the excretion of oxalate in your urine.

Summary

A normal calcium, low-salt, low-protein, dietary regime can reduce your risk of stone formation by a half. Keeping your urine colourless may reduce the risk by a further one third.

Are there any other important points?

This publication provides input from specialists, the British Association of Urological Surgeons, the Department of Health and evidence-based sources as a supplement to any advice you may already have been given by your GP. Alternative treatments can be discussed in more detail with your urologist or Specialist Nurse.



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