

Urology Department

Dietary advice for kidney stones

Introduction

You have been unlucky to form a kidney/ureteric stone(s). Once you have had kidney stones you are more likely to develop them again. Up to half of people will form more stones within three years of their first stone. This advice will help you reduce that chance.

Most people (94% in the UK) will never form stones no matter what their diet. As you have formed stones, however, it is sensible to review your diet to reduce your risk of forming another kidney stone or growing any existing stones.

The following advice is to inform you to help you make your own choice about the foods that you eat. Everybody eats the 'wrong' sorts of foods from time to time; hopefully you will now be able to choose to eat more of the good foods more of the time.

If you are already on a specific diet, please discuss this with your urologist.

Dietary changes

The following advice helps to reduce your tendency to form kidney stones.

Try to change what you eat in the following ways:

- Drink plenty of fluids (except fruit juices)
- Eat a normal amount of calcium-containing food
- Do not take Vitamin C tablets (or other vitamin tablets)
- Reduce your sugar intake



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Fluid

Drinking plenty of fluid is the best way to avoid kidney stones. Aim for two to three litres per day (four to six pints per day) of liquids such as water or sugar-free squash.

Tea and coffee are even better. Beer and wine also protect against stones, but make sure you stay within UK government safe drinking guidelines.

When you are drinking enough fluid, your urine will be nearly colourless rather than yellow in colour. Aim to keep your urine a clear colour at all times, including first thing in the morning.

Taking a glass of water or squash to bed with you is a good idea.

Cola, sugary drinks, fruit juices (grapefruit, cranberry, orange and apple juice) and strong alcoholic drinks (spirits) increase your risk of further stones, so should be avoided. Fizzy drinks do not increase the risk of stones provided they are sugar-free.

Sugar

Normal sugar (sucrose) and fruit sugar (fructose) increase your risk of getting kidney stones. It also increases risk of other illnesses including: tooth decay, obesity, diabetes, heart disease and gout. Where possible choose sugar-free or 'Diet' alternatives.

Calcium containing food

Most stones are formed by oxalate. Calcium in your diet binds to any oxalate in your food and neutralises it, so preventing it from contributing to any stone formation.

One calcium portion = Milk – 1 glass (200mls)

Yoghurt – 1 pot (125g)

Cheese – matchbox size (1oz/25g)

Soya milk – calcium enriched – 1 glass (200mls)

½ tin sardines including bones

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Aim to eat three portions of calcium-containing foods every day (as part of your meals). When choosing dairy products, the best option is the low fat versions.

Calcium tablets may increase your risk of further stones, and should not be taken unless indicated by your doctor. If you are advised to take calcium tablets, the benefit of doing so may outweigh the risk of further stones. Discuss this with your GP and urologist.

Oxalate

Some foods are high in oxalate. Too much food containing oxalate may increase your risk of forming another kidney stone, so where possible, avoid the following foods:

- Rhubarb
- Wheat bran
- Berries e.g. strawberries, raspberries, blackberries
- Spinach, leek, okra, celery
- Nuts
- Malted milk drinks
- Chocolate

Vitamin C

Vitamin C is found in high concentrations in fruit. While '5-a-day' portions of fruit and vegetables is good healthy advice, fruit juices (cranberry, grapefruit, orange, apple juices) contain too much vitamin C and sugar. Massive amounts of Vitamin C come from Vitamin C tablets and most other multivitamin tablets. Your body will absorb any Vitamin C in your diet, then convert it to oxalate, which then goes on to form stones in your kidneys. You should not need to take vitamin supplements if you have a varied diet including fruit and vegetables.

Protein/animal meat

Reducing the amount of animal protein in your diet can help reduce your risk of kidney stone formation. Protein is an essential nutrient in the diet; therefore an adequate intake is still important. Animal protein comes from fish, poultry such as chicken, and red meat (beef, pork, lamb).

General health

Kidney stones are more common in overweight people and sedentary occupations or lifestyles. You will be less likely to form stones in future if

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you achieve your correct weight and if you follow government recommendations on daily exercise.

Salt

A high intake of salt increases the risk of high blood pressure, heart disease and strokes, and may be associated with kidney stone formation. To reduce the salt in your diet, keep salt in cooking to a minimum (do not cook with salt). Do not add salt at the table.

Look at food labels on processed foods and convenience foods as these have a high salt content. Avoid foods which contain more sodium (salt) than 0.5g per 100g

Summary

- Drink enough fluid, particularly water, squash, tea or coffee to keep the urine looking clear/pale, particularly in the morning.
- Avoid cola, other sugary drinks, fruit juice and spirits.
- Avoid Vitamin C tablets, sugar and calcium tablets
- Eat a normal amount of calcium-containing dairy products
- Reduce the amount of salt and meat that you eat

Further Information

For further dietary advice please contact the dietetic department on 024 7696 6151.

The Trust has access to interpreting and translation services. If you need this information in another language or format please contact 024 7696 5256 and we will do our best to meet your needs.

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