

# Dietary advice for people with kidney stones

**Nutrition and Dietetics Department**

This leaflet tells you about how diet can help you prevent the development of renal stones.

There are three types of kidney (renal) stones: Calcium, Uric acid and Cystine stones. It is important to know which type of stone you make in order to understand which aspects of dietary management will work best for you.

This leaflet applies mainly to *Calcium Stones*.

If you have *Uric acid stones* the advice on this leaflet is still valid for you but you may find the information from the following web sites more useful:

- <http://www.arthritisresearchuk.org/arthritis-information/arthritis-and-daily-life/diet-and-arthritis/how-can-changing-my-diet-help-with-gout.aspx>
- <http://www.ukgoutsociety.org/docs/goutsociety-allaboutgoutanddiet-0113.pdf>

There is no current evidence for any diet for *Cystine* stones. If you are excluding significant foods from your diet you should discuss this with your Doctor or Dietitian.

## **What is the most important thing for me to do?**

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Drink! The most important thing in the prevention of renal stones is a good fluid intake. You need fluid to 'flush' out any substances which encourage the build-up of stones and keep the wee or urine diluted.

- Drink 2-3 litres (15 cups) of fluid a day, water is the best drink.
- Spread fluid intake across your day.
- Drink water, flavoured waters, low calorie squash, herbal tea, weak tea or weak coffee.
- Do not count alcohol as part of your fluid intake.
- Drink water during exercise and in hot environments.

## Do I need to change the food I eat?

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Yes. Reducing your salt intake will be beneficial. A high salt intake can contribute to stone formation. It is therefore important to limit your salt (sodium) intake.

- Avoid adding salt to food on the plate.
- Limit ready-made dishes to healthy low salt options.
- Use as little salt in cooking as possible.
- Avoid salted foods such as salted peanuts, crisps, bar snacks, tinned meat, tinned fish (in brine), canned vegetables, Bovril® & Marmite®.
- Make your own low salt sauces or use herbs, spices or mustard to flavour.
- Limit cheese, bacon and ham to a small portion once per week.
- Do not use salt substitutes, e.g. 'Lo Salt'.
- You are recommended to eat less than 6g of salt a day.

## Animal protein foods

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Protein foods such as meat, fish, eggs and milk products are essential for many body functions including blood, hormone, enzyme and antibody production. A high protein diet can encourage stone formation.

- Enjoy modest portions of meat, fish or egg once or twice a day.
- Eat the recommended amount of milk products e.g. ½ pint (250 ml) milk daily for cereals and drinks, 1 yogurt or milk pudding or 2 oz (60 g) cheese
- Enjoy beans, peas, lentils, chick peas and other vegetarian main meal dishes on a regular basis.

## **Do I need to restrict calcium rich foods?**

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No. Calcium is important for maintaining bone strength and preventing osteoporosis. If there are any deficiencies, the body will take the calcium that it needs from your bones. Most renal stones do not respond to calcium restriction.

## **What about foods containing oxalates?**

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It is known that the majority of oxalate in calcium stones comes from the body's normal metabolism. The effectiveness of limiting oxalate rich foods in the diet is unknown. You do not need to limit oxalate rich foods unless you eat these foods frequently ,i.e. more than once a week. Discuss this with your consultant.

The following foods contain oxalate: rhubarb, spinach, beetroot, nuts, berries, leeks, parsley, cocoa, swiss chard, wheatgerm, strong tea or chocolate.

Monitor your chocolate intake and keep to sensible, healthy limits. Limit very strong tea to only 3 cups each day.

Eat and drink calcium and oxalate-rich foods together during a meal e.g. add milk to tea or eat milk chocolate instead of dark chocolate. Oxalate and calcium are more likely to bind together making it less likely for kidney stones to form.

## **What foods will help me?**

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Fruit, vegetables and fibre. These are essential for your health. There is no evidence for restricting these.

- Eat a minimum of five servings of vegetables and/or fruit daily.
- Ensure a good intake of fibre with wholemeal bread, wholegrain cereals and fruit and vegetables.

## Does my weight matter?

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Yes! Your general health will benefit if you are a healthy weight. If you need to lose weight, make sensible choices rather than trying to reduce your weight rapidly. Extreme gain or loss of weight may contribute to stone formation.

## Over the counter medicines

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A healthy diet should avoid the need for vitamin and mineral supplements.

- Avoid Calcium, Vitamin C and Vitamin D supplements unless your Doctor has recommended them.
- Fish oil supplements containing EPA may have a protective role but to date further studies are needed.
- Discuss any other vitamin or mineral supplement with your pharmacist to ensure that there is no adverse effect on your mineral balance.
- Always check with the pharmacist when you buy remedies to make sure that they do not conflict with your condition or prescribed medication.

You can find more information at <http://www.baus.org.uk/patients/symptoms/calculi> or <http://www.lua.co.uk/kidney-stones-diet/>

## Key reference sources

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- Joan Gandy, 2014. Manual of Dietetic Practice. 5th Edition. Wiley-Blackwell
- Dietary advice for stone formers, The British Association of Urological Surgeons [www.baus.org.uk](http://www.baus.org.uk) March 2014

### **Disclaimer**

This leaflet is produced by the dietetic department at The Royal Surrey County Hospital, NHS Foundation Trust. It is not a substitute for dietary advice given to a specific individual by a dietitian. If you need to see a dietitian, ask your GP or consultant for a referral.

Please note that the information in this leaflet was correct at time of writing. The ingredients of manufactured products can change



## Contact details

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Royal Surrey County Hospital (RSCH) NHS Foundation Trust fully subscribes to the National Patient Safety Agency (NPSA) *Being Open* best practice framework, November 2010.

### PALS and Advocacy contact details

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Contact details of independent advocacy services can be provided by our Patient Advice and Liaison Service (PALS) who are located in far left corner as you enter the main reception area. PALS are also your first point of contact for health related issues, questions or concerns surrounding RSCH patient services.

**Telephone:** 01483 402757

**Email:** rsc-tr.pals@nhs.net

**Opening hours:** 9.00am–4.00pm, Monday to Friday

If you would like information documents in large print, on tape or in another language or form please contact PALS.

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