

## Urology Department

# Fluid & Dietary Information for patients with Urinary Tract Stones

If you have been unlucky enough to form a kidney/ureteric stone, you are more likely to develop them again. Up to 50% of people will form more stones within three years of their first stone. This advice will help you reduce that chance.

Urinary tract stones vary greatly in size. Some are as small as a grain of sand, whereas others are so big they can fill the entire kidney. They are not always painful and are sometimes discovered completely by accident after an X-ray or ultrasound examination is undertaken for some other reason.

They can be caused by dehydration, infection, obstruction of the flow of urine and various kidney disorders.

The main types of urinary tract stones are the minerals, calcium oxalate and calcium phosphate. If you have too much of these substances in your urine, they can accumulate to form a crystal, which then grows into a stone. If you manage to pass your kidney stone, try to recover it so that it can be sent for analysis.

The first symptom of a urinary tract stone can be extreme pain, sometimes accompanied by nausea and vomiting. The pain continues as muscles in the wall of the tube from the kidney to the bladder (ureter) try to squeeze the stone along into the bladder. As the stone grows or moves, blood may be found in the urine and the feeling of wanting to urinate more often, is experienced.



## Patient Information

### Fluid intake

- Drinking between two and three litres of fluid a day can reduce the risk of developing a urinary tract stone. The majority of this should be water. **Care should be taken when drinking bottled water as some bottled water can contain high levels of calcium and other chemicals.**
- Coffee, tea and red wine appear to reduce the risk of stone formation.
- Cola drinks (Coca Cola, Pepsi Cola etc.) as well as Grapefruit, Cranberry, Orange and Apple juice are indicated as possible causes of urinary tract stone formation.
- When you are drinking enough fluid, your urine will be clear rather than yellow in colour. Aim to keep your urine a clear colour at all times.

### Beneficial foods

You should aim to eat 3 portions of Calcium-containing foods every day:

- Milk                    1 glass (200mls)
- Yoghurt                1 pot (125g)
- Cheese                 (50g)
- Soya Milk            Calcium-enriched 1 glass (200mls)

Potassium, a nutrient found in bananas, apricots, potatoes and lima beans has been linked with a lower incidence of urinary tract stones. Vitamin B6 found in kidney beans and sunflower seeds could also be of some benefit.

A high fibre diet is also recommended, such as bran, breakfast cereals, brown bread, fruit and vegetables.

## Patient Information

### **Foods to avoid**

- Fruits and vegetables, such as spinach, leeks, celery, beets, rhubarb, oranges, cranberries, strawberries, blackberries and raspberries.
- Some fish, such as anchovies, sardines and salmon (canned) are to be avoided if possible.
- A diet rich in animal proteins increases the risk of forming urinary tract stones. The recommended daily intake of lean meat, poultry or fish is 50 – 75g.
- Chocolate and nuts should be taken in small quantities.
- Vitamin D & C supplements and Antacid remedies should be avoided unless recommended by your GP.
- Try to reduce or avoid using salt in cooking and at the table.

### **Foods high in salt to avoid:**

- Meats: Bacon, Ham, Corned Beef, Tinned Meats.
- Fish: Smoked Fish, Shellfish, Tinned Fish in Brine.
- Spreads: Butter, Fish & Meat pastes, Peanut Butter.
- Snacks: Salty Savoury Biscuits, Crisps, Salted Nuts.
- Cereals: All Bran, Cornflakes, Rice Crispies.
- Flavours: Marmite, Bovril, Oxo, Soy Sauce, Celery Salt, Garlic Salt, Onion Salt.

## Patient Information

### General health

Urinary tract stones are related to obesity and sedentary occupations or lifestyles. You will be less likely to form stones in the future if you achieve your correct weight and if you follow Government recommendations on daily exercise (especially swimming).

**This list is intended as a guide for sensible eating and drinking only.**

### For further information or advice please contact:

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