### KIDNEY STONE PREVENTION

| <b>Patient Name</b> | <b>!</b> |      |
|---------------------|----------|------|
|                     |          | <br> |

If you have had a kidney stone, you are at an increased risk of forming more stones in the future. This risk varies from person to person and in many cases, hereditary factors or racial background plays a part in stone formation. However, there are some general measures that may help to reduce the recurrence rate of kidney stones.

Most kidney stones are either made of:

| CALCIUM OXALA |
|---------------|
|               |

# URIC ACID/URATE

### **GENERAL ADVICE FOR ALL TYPES OF STONES:**

- Maintain a good fluid intake at all times. Ideally, your urine should always be a very pale colour. If it is getting more yellow, you need to drink more fluids. Stone-formers should try to produce between 2-2.5 litres of urine over a 24 hour period. It is a good idea to measure your 24 hour urine output at home and see if you are achieving this.
- Most stones form in the warmer months of the year when people get relatively dehydrated. You should significantly increase your daily fluid intake during this time
- Water is the best drink for stone prevention, but most drinks are OK as long as they are taken in moderation. This means no more than 2-3 cups of tea/coffee per day and 1-2 standard alcoholic drinks per day. Cola (Coke/Pepsi etc) drinks should be avoided if possible.
- Physical activity and weight control are important. An active lifestyle can reduce the risk of stone formation and helps to keep your weight down. Weight gain is a risk factor for stone formation.
- Try to eat a healthy, balanced diet and avoid excessive salt intake. You can eat whatever you want as long as you eat a wide variety of foods, and avoid high fat foods.
- Do **NOT** avoid calcium in your diet. Dietary calcium is important for stone prevention and bone health (see below)

## **ADVICE FOR CALCIUM OXALATE STONE FORMERS**

- **Dietary calcium is important**. It binds to oxalate in your diet and stops it from coming out through your kidneys to form stones. Calcium oxalate stone formers should have about 800mg of calcium per day (a cup of low fat milk has about 300mg of calcium). Low fat yoghurt is also a good source of calcium.
- Calcium supplements, if recommended by a doctor, don't usually increase stone risk if they are taken with food.
- If you are taking a Vitamin D supplement, you will need to be monitored for stone formation.
- Try to avoid foods and drinks that are very high in oxalate (peanuts, wheat bran, chocolate, berries, spinach black tea, cola drinks, soy milk)
- Avoid Vitamin C supplements.
- Squeeze some lemon juice into your water each day. It contains citrate, a compound that can help prevent stones.

#### **ADVICE FOR URIC ACID STONE FORMERS**

- Meat and other animal proteins, (eggs, liver, fish, shellfish) contain purines which are broken down into uric acid in your urine. Try to reduce your overall intake of these foods.
- People with repeated formation of uric acid stones may need to take a medication called Allopurinol, which reduces uric acid production and excretion. Dr Patel will advise you of the need for this.