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### **Kidney Stone Prevention Diet: CALCIUM OXALATE STONES**

Stones composed of calcium oxalate are the most common type of all kidney stones.

Very simply, calcium oxalate crystals form when the urinary conditions are appropriate – low volume and high concentration. Therefore treatment requires urinary dilution, and avoidance of foods that are rich in oxalate.

#### 1. General Measures

- Weight reduction (if overweight) by means of reduced caloric intake and regular exercise
- Compensating for fluid losses (eg. sweating, febrile illness) with additional fluid intake

#### 2. Urine dilution

- This is the most important dietary modification
- Daily fluid intake should be sufficient to result in at least 2.5 Litres of urine. The amount you are required to drink will vary depending on the degree of physical activity and surrounding temperature, but aim to drink 2.5 – 3 L evenly distributed over the day (about 2 cups every 2 hours).
- As a rough guide, you should aim to drink enough fluid so that your urine appears clear or pale-lemon coloured.
- Types of fluids:
  - Mineral water rich in bicarbonate (but not high in salt)
  - Dilute citrus or apple juice
  - Limit coffee and tea intake
  - Avoid alcoholic beverages (especially beer), which increase uric acid excretion and acidify the urine.

#### 3. Diet

- As a general rule, keep a sensible, well-balanced diet.
- Food should have a low oxalate content. There is no need to limit your dairy intake, but avoid harder cheeses which are especially high in calcium.
- Foods rich in oxalate (to be avoided): cola, coffee, tea, chocolate, soft fruits (esp tomatoes), leafy green vegetables (spinach, rhubarb, beet-root).
- Foods low in oxalate (encouraged): eggs, dairy products, fruits, vegetables, cereals.