

Dietary Treatment for Kidney Stones

After Bariatric Surgery, some patients have trouble with kidney stones. Your family doctor will provide you with specific instructions, but here are some dietary suggestions to minimize occurrence of future stones.



FLUID

Drinking lots of water helps to flush away the substances that form stones in the kidneys.

- Oral fluid intake should produce 2 Liters (70 oz. or 8 ¾ cups) of urine daily
- Collect urine for 24 hours on normal diet, then determine how much fluids needed to produce 2 Liters and drink that much daily
- You may need 12-15 cups (or 96-120 oz. per day)

CALCIUM

Dietary calcium may actually bind the oxalate in foods, preventing it from being absorbed into the blood and excreted into the urine.

- Eating calcium **with meals** is not harmful
- Consume a normal amount of dietary calcium (800-1000 mg daily)



CALCIUM CITRATE SUPPLEMENTS

Calcium taken without food (empty stomach) will increase urinary calcium, and increase the risk of forming stones, but calcium taken with food (with meals) can help bind the oxalates and reduce risk of stones.

- Take calcium citrate supplements with meals to help bind oxalates before they are absorbed

SODIUM

Extra sodium causes you to lose more calcium in your urine, putting you at risk for developing another stone.

- Limit sodium intake to less than 2000 mg/day



CITRIC ACID

Citric acid is protective because it makes urine less favorable for the formation of stones.

- Lemons have highest citric acid content
- Make "lemonade" with 4 oz. lemon juice, 60 oz. water, drink throughout day
- Avoid juices like cranberry, apple, and grapefruit, and avoid all colas

PROTEIN

Reducing the amount of animal proteins can help prevent kidney stones.

- Consume a moderate amount of dietary protein- less than 75 grams per day
- Limit **animal** protein (meat, chicken or fish) and eat more plant proteins (beans, lentils, soy products, whole grains, vegetables)



OXALATE

Calcium combines with oxalate in the intestines which reduces calcium's ability to be absorbed. So calcium oxalate stones can form because too much oxalate goes to the kidneys to be excreted.

- Some evidence to restrict dietary oxalate
- Avoid foods highest in oxalate:

Spinach	Black tea/iced tea	Bran concentrates/cereals
Rhubarb	Chocolate	Tree nuts (almonds)
Beets	Legumes (beans, peanuts, soybeans, and some soy foods)	

- Boiling vegetables decreases total oxalate content by 30-87% (however, don't consume the water veggies were boiled in)

