Nephrolithiasis/Kidney Stones: Complementary/Alternative Medicine

Usually without symptoms until stone becomes dislodged Excruciating intermittent radiating pain originating in the flank or kidney Nausea, vomiting, and abdominal distension Chills, fever, and urinary frequency if accompanied by infection Diagnosed by ultrasound

QUICK REVIEW

Ten percent of all American males will experience a kidney stone during their lifetime.

Kidney stones have been linked to the following dietary patterns: low intake of fiber; high intake of highly refined carbohydrates, alcohol, animal protein, fat, and high-calcium, low-magnesium, vitamin Denriched milk products.

Magnesium and vitamin B6 supplementation can prevent kidney stones. Citrate supplementation stops stone formation in nearly ninety percent of cases.

Cranberry juice has been shown to reduce the amount of ionized calcium in the urine by over fifty percent in patients with recurrent kidney stones. It is important to avoid high-purine foods and salt.

Drink at least 48 ounces of water daily.

TREATMENT SUMMARY

Prevention of recurrence is the therapeutic goal in the treatment of kidney stones. Since dietary management is effective, inexpensive, and free from side effects, it is the treatment of choice. The specific treatment is determined by the type of stone and may include Reducing urinary calcium levels Reducing purine intake Avoiding high-oxalate-content foods Increasing intake of foods with a high magnesium to calcium ratio

Increasing intake of Vitamin K rich foods

For all types of stones, increasing urine flow to dilute the urine is vital. Enough fluids should be consumed to produce a daily urinary volume of at least 2,000 ml.

NOTE: In acute cases, surgical removal or breaking up the stone with sound waves lithotripsy) may be necessary.

Calcium Stones

Diet

Increase intake of fiber, complex carbohydrates, and green leafy vegetables, and decrease intake of simple carbohydrates and purines (meat, fish, poultry, yeast). Increase intake of high-magnesium-to-calcium-ratio foods (barley, bran, corn, buckwheat, rye, soy, oats, brown rice, avocado, banana, cashew, coconut, peanuts, sesame seeds, lima beans, potato). If there are oxalate stones, reduce oxalate-containing foods (black tea, cocoa, spinach, beet leaves, rhubarb, parsley, cranberries, nuts). Limit intake of dairy products.

Nutritional Supplements

- Vitamin B6: 25 mg per day Vitamin K: 2 mg per day
- Magnesium: 600 mg per day
- Calcium: 300-1,000 mg per day

Botanical Medicines

Use $Aloe\ vera$ or senna at a dosage just below a level that will produce a laxative effect (this will vary from one person to the next).

Miscellaneous

Avoid aluminum-containing antacids.

Uric Acid Stones

Diet

Decrease purine intake (see list under Uric Acid Metabolism in this chapter).

Nutritional Supplements

Folic acid: 5 mg per day

Miscellaneous

Alkalinize urine: citrate, bicarbonate Magnesium Ammonium Phosphate Stones

Miscellaneous

- Eradicate infection (see BLADDER INFECTION)
- ${\mbox{ \bullet }}$ Acidify urine: ammonium chloride (100-200 mg three times per day) Cystine Stones

Diet

Avoid methionine-rich foods (soy, wheat, dairy products [except whole milk], fish, meat, lima beans, garbanzo beans, mushrooms, and all nuts except coconut, hazelnut, and sunflower seeds).

Miscellaneous

Alkalinize urine: optimal pH is 7.5--8.0