

Healthy Eating Guidelines for Prevention of Recurrent Kidney Stones

If you've had kidney stones in the past, these guidelines will help you reduce your risk of having them again.

There are different types of kidney stones: calcium oxalate, calcium phosphate, uric acid, and cystine. Calcium oxalate stones are the most common. It is helpful to know what kind of stone you had because the advice about how to eat is slightly different for each. Talk with your healthcare provider if you are unsure.



Steps you can take

1. Drink plenty of fluid, **especially water**. This is the **most important** thing you can do to lower your risk of getting another kidney stone.
 - o Aim for at least 2 ½ - 3 litres (10-12 cups) of fluid each day. People with cystine stones may want to aim for 4 litres (16 cups).
 - o If you are not used to drinking this much fluid, start by adding one extra glass of fluid each day and slowly increase the number of glasses you have.
 - o Sugary drinks such as pop, fruit drinks, and specialty coffee and tea drinks are not good choices for increasing the amount of fluid you drink. They may increase your risk of kidney stones.

Try these tips to help you drink more fluid:

- o Carry a water bottle with you throughout the day.
- o Include at least one beverage with each meal.
- o Keep a pitcher of water on the counter or in the fridge when you're at home and work.

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This information is not meant to replace advice from your medical doctor or individual counseling with a registered dietitian. It is intended for educational and informational purposes only.

- Add some cut up lemon, lime, watermelon or mint leaves to your glass of water for a refreshing flavour.
 - Set reminders for yourself: automated emails or texts on your smartphone, or pop-ups in your calendar at work.
2. It may be helpful to limit animal protein, including meat, fish, seafood, poultry, and eggs.
- Have no more than 2-3 servings of animal protein per day. See "Eating Well with Canada's Food Guide" for information on serving sizes.
 - Choose plant-based protein sources such as dried lentils, peas and beans, tofu, nuts* or seeds more often. (*If you had calcium oxalate stones, see point 5 below for more information on eating nuts.)
3. Limit the amount of salt (sodium) you eat.
- Choose more fresh and frozen fruits and vegetables; whole grains; milk and yogurt; small portions of unseasoned meat, fish and poultry; and unsalted nuts* and seeds. (*If you had calcium oxalate stones, see point 5 below for more information on eating nuts.)
 - Limit packaged foods, ready-to-eat foods, fast foods and restaurant meals. They are often high in sodium. Choose foods with 15%DV or less for sodium when reading food labels. Ask for lower sodium options when eating out.
 - Replace added salt used at the table or in cooking with herbs, spices, seasonings, lemon or lime zest/juice, garlic, ginger or pepper.

The remaining steps apply only to people with calcium oxalate and/or calcium phosphate stones:

4. Eat calcium-rich foods instead of taking supplements.

Calcium-rich foods include:

- milk and other dairy products
- calcium-fortified foods and beverages such as calcium-

- fortified tofu, calcium-fortified soy and rice drinks and orange juice
- o fish canned with the bones

Aim for the following amount of calcium each day, but not more than this:

- o All adults 19-50 years - 1000 mg
- o Females 51-70 years - 1200 mg
- o Males 51-70 years - 1000 mg
- o All adults >70 years - 1200 mg

If you need to take a supplement to meet your requirement, take the lowest dose needed and take it with meals.

5. If you had calcium oxalate stones, limit high-oxalate foods (>10mg per serving). Many of these foods are healthy choices so you don't want to avoid them completely. When you eat foods high in oxalate, have them with a food that is rich in calcium. (See point 4 above for calcium-rich food sources.)

Foods high (>10mg per serving) in oxalates include:

- o spinach, okra, beets (root and leaves), Swiss chard
- o star fruit, rhubarb, dried figs
- o peanuts, tree nuts (pecans, almonds, hazelnuts)
- o soybeans (including tofu and meat substitutes made with soy)
- o black tea
- o wheat bran
- o buckwheat
- o dark chocolate

Note: Oxalate content can vary from list to list based on where the food was grown, time of year, travel, processing, whether it was organically or conventionally grown, whether it was soaked or cooked, etc.

6. If you want to take a vitamin C supplement, make sure you take less than 1000 milligrams per day. High amounts of vitamin C may increase your risk of stones.
7. It is best to avoid alcohol. If you do drink, follow Canada's Low-Risk Drinking Guidelines.
 - 10 drinks a week for women, with no more than 2 drinks a day most days.
 - 15 drinks a week for men, with no more than 3 drinks a day most days.

One drink is any one of the following:

- 341 mL (12 oz.) 5% alcohol beer
- 142 mL (5 oz.) 12% alcohol wine
- 43 mL (1.5 oz.) 40% alcohol distilled alcohol (such as rye, gin or rum)



Additional Resources

- EatRight Ontario fact sheets:
 - Low Sodium (Salt) Eating www.onpen.ca/Docviewer.aspx?id=7505
 - Food Sources of Calcium www.onpen.ca/Docviewer.aspx?id=7480
 - Healthy Eating Guidelines for Lower Sodium Eating www.onpen.ca/Docviewer.aspx?id=7505

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Notes

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