

# Preventing Kidney Stones

There are different types of kidney stones. Your 24 hour urine test will find your risk factors for forming kidney stones. This information, along with the type of kidney stone you have, will help your health care provider recommend diet changes and medicines to lower your risk of forming more stones.

Until your type of stones and your risk factors are known, **drink plenty of water and follow a balanced, healthy diet.**

## Drink plenty of water and other fluids each day

**Drink 3 liters total of water and other fluids** to make 2½ liters of urine each day. Drinking enough fluids is the best way to prevent kidney stones. Drinking fluids throughout the day helps keep your urine diluted. The more diluted your urine is, the less risk you have to form a stone.

- Try to drink 1 liter (4 cups or 32 ounces) of fluid 3 times a day: in the morning, afternoon, and evening each. Stop drinking 2 hours before bedtime to help reduce nighttime bathroom trips.
- Try to make most of your fluids water.
- Add lemon or lime juice to your water or try drinking lite or sugar free lemonade if you have a calcium-based stone (the most common type of kidney stone).
- Make drinking your fluids a habit every day, 365 days a year.
- Ask for the handout “Preventing Kidney Stones with Fluids and Citric Acid” or visit [go.osu.edu/pted5201](http://go.osu.edu/pted5201) to learn more helpful tips.

## Eat a healthy diet with plenty of fruits and vegetables

There are many compounds in fruits and vegetables that help to prevent kidney stones like potassium, magnesium, and citric acid. **Try to include at least one fruit or vegetable at each meal.** Fruits and vegetables make great snacks too!

### Fruits - eat 4 to 5 servings per day

- 1 serving equals:
  - 1 medium fruit
  - ½ cup fresh, frozen, or canned fruit
- Choose whole fruits (fresh, frozen, or dried) over juice.
- Lemon and lime juice are acceptable and encouraged.



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**Vegetables - eat 4 to 5 servings per day**

- 1 serving equals:
  - 1 cup raw, leafy vegetables
  - ½ cup chopped raw or cooked vegetables
  - ½ cup low-sodium vegetable juice

**Grains - eat 4 to 6 servings per day**

- 1 serving equals:
  - 1 slice of bread
  - 1 ounce of dry cereal (about ½ to 1 ¼ cups, depending on cereal type)
  - ½ cup of cooked rice, pasta, grains, or cereal
- Choose whole grains (100% whole wheat or whole grain bread, brown rice, quinoa, or oatmeal) over refined grains (white flour, degermed cornmeal, white bread, or white rice).

**Fat free or low fat dairy - eat 2 to 3 servings per day**

- 1 serving equals:
  - 1 cup fat free or 1% low fat milk
  - 1 ½ ounces low fat cheese
  - 6 ounces fat free or low fat yogurt

**Lean meats, poultry, and fish - eat 6 to 8 servings per day**

- 1 serving equals:
  - 1 ounce cooked meat, fish, or poultry
  - 1 egg
- Trim away visible fat.
- Remove skin from poultry.
- Use low-fat cooking methods, like broil, roast, poach, and bake.
- Limit meat to about 3 or 4 ounces at meals (about the size of the palm of your hand).

**Fats and oils - eat 2 to 3 servings per day**

- 1 serving equals:
  - 1 teaspoon oil, butter, or margarine
  - 1 tablespoon mayonnaise
  - 2 tablespoons salad dressing
- Use olive oil as your first choice for oils and over butter or margarine.
- Use small amounts of butter or margarine.



## Seeds, nuts, and legumes (beans, lentils, and peas) - eat 4 to 5 servings per week

- 1 serving equals:
  - 1/3 cup or 1 1/2 ounces of nuts
  - 2 tablespoons nut butter
  - 2 tablespoons or 1/2 ounce seeds
  - 1/2 cup cooked beans, lentils, or peas



## Sodium - limit to 2,300 mg or less per day

- 1 teaspoon of salt has about 2,300 mg of sodium.
- Most of the sodium in our diets comes from restaurant and fast foods, and processed foods, like lunch meat, canned soups and vegetables, and boxed or packaged mixes like macaroni and cheese.
- Read food labels to learn how much sodium is in a food. Avoid products that have more than 300 milligrams (mg) of sodium per serving.
- Fresh fruits and vegetables, meats, and plain whole grains have very little sodium.

## Sweets and added sugars

- Eat more fruit to satisfy your sweet tooth.
- Limit added sugar to:
  - 100 calories or 6 teaspoons per day for most women.
  - 150 calories or 9 teaspoons per day for most men.
- **Avoid sugary beverages** like soda, sweet tea, regular lemonade, juice drinks, juice, and sports drinks with electrolytes. These can increase the risk of kidney stones.

### Tips for success

- Focus on drinking enough fluids every day to keep your urine diluted. **This is the best way to prevent kidney stones.**
- Eating more fruits and vegetables and following an overall healthy diet is also important to prevent kidney stones. **BONUS:** it is good for all other parts of your body too!

## Visit these websites for more information

- [www.kidney.org/atoz/content/diet](http://www.kidney.org/atoz/content/diet)
- [www.niddk.nih.gov/health-information/urologic-diseases/kidney-stones/eating-diet-nutrition](http://www.niddk.nih.gov/health-information/urologic-diseases/kidney-stones/eating-diet-nutrition)

## Contact these departments for appointments

- Nephrology (Metabolic Stone Clinic) at 614-293-4837
- Urology at 614-293-8155

If you have questions about this diet, talk to your health care provider about a referral to see a dietitian.