

Preventing Kidney Stones with Diet and Nutrition

Stay Hydrated

Staying hydrated is not as simple as just drinking water. Other things to consider include:

- Don't overdo it. Avoid drinking more than eight 8-ounce glasses of water a day. More water than this can change the balance of particles in your body called electrolytes. This can be harmful and sometimes happens in endurance athletes, such as marathon runners, who drink too much water when losing a lot of sweat. In such circumstances, a mixture of water, electrolytes, and a small amount of sugar can be used. Examples are chicken broth, coconut water, Pedialyte, or use of oral rehydration salts. Artificial sweeteners should be avoided because they have the opposite effect, making it more difficult to rehydrate.
- Avoid sugary drinks, such as fruit drinks and sports drinks, because they add calories and change the acid-base balance of the urine.
- For most kidney stones, urine should be less acidic. One way to make the urine less acidic is to add citrate to drinking water. Lemon and lime juices are great sources of citrate.
- You can also breathe in moisture to stay hydrated by using humidifiers and steam.
- Be aware that obesity increases the risk of dehydration. The more extra weight someone carries, the more important hydration becomes.

Control Your Weight

You are more likely to get kidney stones if you are obese. You should maintain a healthy weight through diet and exercise. Losing weight with laxatives or extreme dieting can increase your risk of kidney stones.

Eat Right for Your Stone Type

New research shows that changes in diet and nutrients, when used together, can help prevent kidney stones in adults. Specific changes you should make depend on what type of stone you want to prevent.

Calcium Oxalate Stones. These are the most common types of kidney stone. They can form when your urine is too acidic. Eating foods and drinking beverages that lower the acidity in your urine can help prevent these types of stones. The nutritional supplements potassium citrate, magnesium potassium citrate, and calcium citrate may also help. If the level of calcium in your urine is high, restricting sodium to no more than 2 grams a day is important to prevent calcium oxalate stones. You should avoid too much protein in your diet, as well as too much or too little vitamin D.

Uric Acid Stones. These can form when your urine isn't acidic enough. You can help increase the acidity by adding lemon or lime juice to your water or by drinking cranberry juice.



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The nutritional supplement betaine may also help. Other ways to prevent uric acid stones include decreasing how much protein and sugar you eat and not drinking alcohol.

Calcium Phosphate Stones. These can occur in anyone, but they are more common in pregnant women. They can form when your urine isn't acidic enough; therefore, you should increase the acidity of your urine.

Cystine Stones. These stones are rare and usually occur in childhood. They can form when your urine is too acidic; therefore, you should lower the acidity of your urine.

Struvite Stones. These are uncommon and are often associated with bladder infections. Hydration with fluid intake and eating a lot of fruits, vegetables, grains, legumes, nuts, and teas may help reduce bladder infections. Increasing the acidity of your urine may help.

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Notes:

This handout is provided to you by your family doctor and the American Academy of Family Physicians. Other health-related information is available from the AAFP online at <http://familydoctor.org>.

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