

Preventing Stones Through Diet

Most stones are related to diet and environment (dehydrated and hot). Help prevent stones by following these tips. They are ranked in order of importance.

1. Drink more **WATER**. If your urine is clear like water, then you have had enough water. If it is not clear, then you can likely drink more water. Water is not coffee, juice, alcohol, tea, sports drink, or any other beverage.
 - a. Although studies show that any increase in fluid can help, the most benefit comes from pure water.
 - b. Mineral water may help or hurt because it depends on the minerals. Assume that mineral water is bad.
 - c. Caffeinated and alcoholic beverages tend to cause more dehydration. If you drink one of these beverages, then try to also consume pure water. A rule of thumb is the same amount of water.
 - d. Some studies show that certain carbonated waters have increased citrate, and this is considered beneficial to preventing stones. However, most carbonated beverages are high in sodium, caffeine, or other lithogenic (stone forming) substances and are best avoided.
 - e. Water intoxication (too much water intake) is possible but is very rare. In general, a kidney can easily filter 1 Liter of water per hour. Usually, too much water causes nausea and vomiting. 32 ounces at once is safe for most adults, but chugging a gallon could be risky.
2. Get more **CITRATE** into your urine. Citrate is generally found in citrus fruits, like lemons, limes, and oranges. A general recommendation is to consume more orange juice or lemonade because studies have shown that these beverages get citrate into your urine. Be careful about the high sugar concentration in these drinks. Often, a good substitution is lemon juice in water. You can also eat the fruit. Grapefruit has chemicals that may interfere with other medications and has not been proven to prevent stones.
3. Eat a **HEALTHY** diet. An easy rule to remember is a “heart healthy” diet. The item you want to minimize the most is sodium (it’s on the black and white food ingredients label). Sodium is a component of table salt, but most of our sodium intake comes from preservatives. So beware of prepackaged, boxed foods with a long shelf life. In addition, eat less red meat. You don’t have to be miserable with bland food. A good rule of thumb is “almost everything is fine in moderation.”
 - a. Acidic urine is more conducive to stones. The acid comes from metabolizing proteins. Therefore, acidic food (ie. oranges) don’t make acidic urine.
 - i. For more information on acidic foods, consider this website:
<http://www.acidalkalinediet.net/acid-alkaline-food-chart.php>
 - ii. But beware of extravagant claims made in regards to an alkaline diet.
<http://www.webmd.com/diet/alkaline-diets>
 - b. Yes, most stones are made of calcium and oxalate, but NO, you do not need to limit your intake of these substances. In fact, if you eat a calcium supplement with a high oxalate meal, then most of the calcium and oxalate will bind in your gut and never be absorbed. There are always exceptions to the rules. But limiting calcium is not a good idea. Speak with your doctor before trying to eliminate oxalate from your diet.
 - c. Another overview of diet prevention of stones can be found through this website:
<http://www.kidneystoners.org/prevention/dietary-prevention/>
 - d. Harvard Health Blog:
<http://www.health.harvard.edu/blog/5-steps-for-preventing-kidney-stones-201310046721>
4. Be healthy! It helps with almost everything. Stay hydrated. Exercise. Lose weight (if you are heavy). Maintain a positive attitude. Frequently, a stone work-up will be performed by your doctor and this may include a 24 hour urine collection. This can help guide further stone prevention efforts. Sometimes, medication is required to prevent further stones. But in general, most stones are prevented with a consistent adherence to stone prevention diet guidelines.