

Tea for Kidney Stones

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Nearly 10% of the American population suffers from kidney stones. This illness, also known as “renal calculi,” is collections of crystals that form in urine when the composition of certain compounds is in high enough concentration. Kidney stones form in a similar manner to salt or sugar crystals. Known for causing a great deal of pain in its sufferers, kidney stones have been equated to the trauma of childbirth.

Kidney stones may be very small—passing through the body unnoticed in the urine—but most are too large to pass smoothly through the urinary tract and have sharp or serrated edges. When these stones try to pass through the urinary tract, it can be quite painful and damaging to the body. In some cases, those suffering from severe kidney stones must undergo surgery and treatment with specialized medical equipment.

For many Americans, kidney stones are a regular occurrence—as annoying as weeds in a carefully-manicured lawn. You may pull them out or mow them down now, but they will resurface next year. Once a kidney stone forms, the probability that a second stone will form within five to seven years is approximately 50%.¹

Therefore, prevention is just as important as treatment of kidney stones. One may either continue to treat the symptoms, or attack the problem at its core. Some doctors may merely prescribe medications, but there are holistic ways to prevent kidney stones and reap other associated health benefits from these approaches.

First, it is important to understand more about how and why kidney stones form in the body. A vast majority of kidney stones—around 80%-- are composed of the element calcium, and other minerals: usually a combination of calcium and oxalate. One of the major processes in the development of kidney stones is supersaturation. This involves the salts that are carried through the urine—calcium oxalate, uric acid, and others—kidney stones form under conditions when the volume of urine is significantly reduced or there are abnormally-high amounts of these crystal-forming salts in the kidneys or urinary tract. When the concentration is so great that the salts can no longer dissolve, they precipitate out and form crystals.

Adjusting diet and upping fluid intake may be enough to prevent the reformation of kidney stones in the body. One of these key fluids is tea—a staple of most pantries and something easily-found at the market or health food store. What aspect of tea makes it a first-row fighter for the battle against kidney stones?

¹ Asplin JR, Favus MJ, Coe FL. Nephrolithiasis. In: Brenner BM, ed. *Brenner and Rector's the kidney*. 5th ed. Philadelphia: Saunders, 1996: 1893-935.

The answer lies in its numerous health benefits, as tea is a dietary source of flavanols and flavonols. A number of studies over the past 10 years have provided strong evidence that tea polyphenols may possess the bioactivity to affect the pathogenesis of several chronic diseases. Clinical trials employing putative, intermediary indicators of disease, particularly biomarkers of oxidative stress status, suggest tea polyphenols could play a role in the pathogenesis of cancer and heart disease.²

Further, increasing the intake of fluids may help prevent kidney stone formation; tea is a readily-available beverage, the most popular beverage in the world (second only to water). According to a study at the Harvard School for Public Health and Brigham and Women's Hospital, an increase in total fluid intake can reduce risk for kidney stones, and the choice of beverage may be meaningful.³ Kidney stone formation was reduced by 8% with only one 8 oz serving. For regular tea drinkers, this is great news.

However, not all teas are created equal. Despite their health benefits, green, white, and black teas may increase the chance of kidney stones. Increasing dietary oxalate in the body to unusually high amounts can increase the risk of kidney stone formation. Risk factors include low dietary potassium, magnesium, and high levels of oxalate.⁴ To reduce urinary oxalate, many doctors advise a reduction of foods with higher concentrations of oxalate. Unfortunate for many, this includes tea. However, not all teas contain these levels of oxalate, and should not be shunned as they contain a plethora of other antioxidants and cancer-fighting elements. For those suffering from kidney stones, it is advised to increase fluid intake with decaffeinated, herbal teas. These will not only aid in preventing kidney stones, but also help quell heartburn, upset stomach, and other ailments. According to a New York study, Coffee, and perhaps tea, fruits, and vegetables were found to be protective for stone disease.⁵

The best tea for treating kidney stones is Rooibos tea, originating in South Africa and is known to relieve allergies, irritated skin, and stomach cramping. Its vast supply of antioxidants makes it a star fighter against cancer, and helps slow the aging process and boost the immune system. This tea contains no oxalic acid, making it an excellent beverage for those prone to kidney stones. Containing no colors, additives, preservatives, or caffeine, it is a natural beverage and won't contribute to insomnia or hypertension, like other caffeinated beverages.

² Diane L. McKay, PhD and Jeffrey B. Blumberg, PhD, FACN. The Role of Tea in Human Health: An Update. *Journal of the American College of Nutrition*, Vol. 21, No. 1, 1-13 (2002)

³ Curhan, Gary C., MD, et al. Beverage Use and Risk for Kidney Stones in Women. *Annals of Internal Medicine*, Vol. 128, No 7, 534-540 (1998).

⁴ Hall, W. Dallas MD, et al. Risk Factors for Kidney Stones in Older Women in the Southern United States. *American Journal of Medical Sciences*. 322(1):12-18, July 2001.

⁵ Goldfarb, DS, Fischer, ME, Keich, Y, Goldberg, J. A twin study of genetic and dietary influences on nephrolithiasis: a report from the Vietnam Era Twin (VET) Registry. *Kidney Int*. 2005 Mar;67(3):1053-61.

Thankfully, those prone to kidney stones have a solution to the reappearance of such a painful disorder. Drinking just a few cups of roobios or other herbal tea each day can help prevent the buildup of excess oxalate, improve overall fluid intake, and provide a long list of other health benefits to the body.