

## KIDNEY STONES

### What's the Problem, and How Do You Diagnose It?

The most common kidney problem in HIV+ people is the occurrence of kidney stones. They can cause excruciating pain, most often in the lower back and sides (called flank pain or renal colic). They may also cause difficult or painful urination, or an inability to urinate. In some cases, the urine may contain blood. Anyone developing such symptoms should notify their physician and/or report to the emergency room as soon as possible. Diagnosis is based on the pain description and X rays.

### What are the Causes?

Kidney stones can occur for many reasons and are more common in warmer climates where people sweat more, leaving the urine with a higher concentration of minerals or crystals, a breeding ground for the development of stones. Kidney problems can occur in people taking HAART meds, especially if they drink inadequate quantities of fluids. The protease inhibitor indinavir (Crixivan®) is known to cause kidney sludge problems (so called because it's not really a stone) that can be quite painful. The problem appears to be more likely in those who fail to drink adequate water daily. The sulfa drug Septra/Bactrim has also been reported to cause kidney stones.

### What are the possible treatments?

The most common treatment for those suffering from kidney stones is simply pain medication as there are no standard therapies for dissolving the stones. It's just a waiting game until the stones finally pass into the bladder and are then eliminated through urination. Because the condition is so often severely painful, the direction given to most sufferers to simply wait it out is, to say the least, not always welcome, especially when the process takes weeks instead of hours or days. In those who are shown to have very large stones, a procedure that uses ultrasonic energy to break up the stone(s) is sometimes used so that they will then become small enough to be passed, but the majority of stones are not deemed large enough to warrant this intervention.

### Key Therapies

**Drinking plenty of fluids.** Drinking lots of water and other healthful liquids (caffeine-free teas, juices, and broths) is considered a must for helping to prevent kidney stones, especially in those on indinavir (Crixivan®) or any other drug known to be associated with the development of kidney stones. A good rule for determining what quantity of water you should drink daily is to take your weight in pounds, divide it in half, and then drink at least that many ounces of water daily. This formula is helpful because your body size affects how much liquid you need to consume for health. Standard recommendations for "8 glasses per day" or something similar don't take this into account. For someone who has already developed kidney stones, drinking plenty of water can help prevent a worsening or recurrence of the problem.

It is important to remember that a higher than usual fluid intake may be needed any time you are in a situation that increases dehydration. If you are outdoors in the heat, or you are exercising, especially in hot weather, or dancing, especially in a warm environment, or doing anything else that causes you to sweat, it will be very important to drink even more water than you otherwise would. Diarrhea or vomiting can also cause the body to become dehydrated, and would require additional fluid intake. If you consume alcohol or caffeine-containing drinks, remember that they are both dehydrating. That means that beverages which contain either of these not only don't count toward your desired daily fluid intake amount, they actually increase your need for good fluids. By helping to ensure that your body remains well-hydrated at all times, you can decrease the risk that kidney stones will be formed.

### Nutraceuticals:

**Aloe Vera Gel:** Aloe is rich in anthraquinone glycosides. Though classically used for their laxative effects, anthraquinones also bind to calcium in the urinary tract and reduce the formation of stones.

**Dosage:** 1 teaspoon of pure gel twice daily.

**Gravel Root (*Eupatorium purpureum*):** Gravel root has been the primary botanical used by herbalists to help in the breaking up of stones once they have formed. Like marshmallow root, there is no scientific substantiation of this action, and thus, no mechanisms of action explaining its effect. However, its usefulness has been firmly established in the traditional herbal literature.

**Dosage:** As tea, 1 tablespoon simmered in boiling water for 10-15 minutes. Drink 2-3 cups daily.

**Khella Seed (*Amni visnaga*):** A little known botanical in the United States, khella specifically causes a relaxation of the ureters which can help to facilitate the passing of a stone during an acute attack.

**Dosage:** Equivalent to 150 mg of khellin daily.

**Kidney UT:** An herbal combination containing juniper berries, parsley, ginger root, Uva Ursi, marshmallow root, cramp bark and goldenseal that support intestinal, urinary tract, and kidney function. Use should be limited to a couple of weeks, and may be too strong for sensitive stomachs. Do not use if pregnant.

**Marshmallow Root (*Althaea officinalis*):** Marshmallow has demulcent properties which, according to traditional practice of herbalists, helps to soothe the genitourinary tract and facilitate a smoother expulsion of stones once they have formed. There is little scientific data supporting this action but its usefulness is well established among practicing herbalists.

**Dosage:** 1 tablespoon of root soaked in cold water overnight; drink 2 cups daily.

**Liquid phosphorus.** Many chiropractors and other alternative health practitioners recommend a product made by Standard Process called Phosfood (a liquid phosphorus formulation) for those with kidney stones. There are anecdotal reports of the successful use of this product to help stones be eliminated. The usual direction is to mix 20 drops of Phosfood into a small quantity of water and drink it, three times daily.

**Pain treatment.** As with all other conditions in which pain is present, appropriate remedies for pain relief should be offered to the sufferer. There is considerable evidence that appropriate treatment of pain is very important for health. For those suffering from kidney stones, whatever is necessary to relieve the pain to the greatest extent possible should be given. (For more information, see *Pain*.)

Kidney UT x100	4 - 6/d (2B, 2L, 2D)
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**NYBC Nutraceuticals for Kidney Stones:**

Glutamine 900 mg x 180	6+/d (2+B,2+L, 2+D)
Ketotifen 1 mg x 50	2-4/d (0-1B,1-2L, 1D)
Magnesium glycinate 220 mg x 120	2-3/d (0-1B, 1L, 1D)

(Consider also magnesium malate instead of the glycinate form.)