

## Health Matters – August 2009

### *Kidney Stones: The Pain You Can't Forget*

Frequently described as one of the most painful medical conditions there is, kidney stone 'attacks' are often unforgettable. And size doesn't matter - whether marble or BB sized, a kidney stone can cause an obstruction as it moves down the ureter (tube from the kidney). This usually leads to severe back or side pain, and often frequent, painful and bloody urination.

Kidney stones are common and occur in up to 10% of the population. They usually do not cause symptoms until they move. People of all ages can get kidney stones, but they most often occur between the ages of 30 and 50 years. Once a person gets a kidney stone, others are more likely to develop. Despite the pain they can cause, they are seldom serious and are easily treatable.

What are kidney stones? They are rocks or accumulations of crystals that can form due to low volume, highly concentrated urine. Most kidney stones are made of calcium oxalate, but sometimes they are made of uric acid, cystine or struvite. Kidney stone formation is usually due to a combination of genetics (they tend to run in families) and diet. Some risk factors include being male, obese, having a diet high in animal protein, salt or oxalates (a mineral found abundantly in chocolate, tea, coffee and colas). Interestingly, kidney stones tend to develop on the side a person sleeps on. Kidney stones have become more common in children, possibly from a lack of fluid intake, excess salt intake and an increase in obesity.

Dehydration is typically the underlying cause of most kidney stones; the best prevention is to drink plenty of fluids. On average it is recommended to drink 8-10 cups (8oz.) of water each day. While the *type* of fluid is not as important as the *amount*, fluids high in citrate (such as lemonade or orange juice) can often be helpful in reducing kidney stone formation. Contrary to popular belief, while the majority of kidney stones contain calcium, kidney stones are *not* usually caused by excess dairy or calcium supplements.

The only way to confirm that you have a kidney stone and determine its location and size is through an imaging study. CT scans or kidney ultrasounds are most commonly used. While most kidney stones either pass on their own or are too small to cause problems, some are too large to pass and can cause significant pain, bleeding or infection. In this case, treatment may require a hospital procedure. The two most common, safest and most effective methods of treating kidney stones are extracorporeal shock wave lithotripsy (ESWL) or flexible ureteroscopy with a holmium laser. Some kidney stones are best treated with ESWL, where powerful sound waves "crumble" the kidney stone into sand-like particles which can then pass out of the urinary tract. Other kidney stones are treated with ureteroscopy, where a thin flexible scope is passed through the ureter and the kidney stone is then "basketed" out. Often a holmium laser is used to fragment the kidney stone prior to its removal. Both ESWL and ureteroscopy/laser procedures are done while the

patient is asleep. They are outpatient procedures that do not involve needles or incisions. Normal activities can be resumed usually within a couple of days of the procedure.

Because kidney stones are often recurrent, a comprehensive evaluation with a physician, and possibly a dietitian, can be important in helping to prevent recurrences. The evaluation may involve blood and urine tests, dietary counseling and sometimes medication. Fortunately, the underlying cause of kidney stones is often found and preventive measures are usually effective in preventing another ‘unforgettable’ attack.

For more information on kidney stones, visit [www.stillwatermedicalgroup.com/urology\\_kidney\\_stones](http://www.stillwatermedicalgroup.com/urology_kidney_stones).



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