

Turning Over Some Stones Causes & Prevention of Calcium & Gouty Stones

In terms of symptoms and treatment, a kidney stone is a stone—they all have the potential to cause excruciating pain, most pass unaided, but some must be extracted or broken up by a surgeon.



By Ronald I. Kaye, MD
Board-Certified Urologist

The same cannot be said of their chemical composition, and the type of stone you have can tell your urologist much about what caused your disease and how to prevent it.

Let's look in more detail at the similarities.

All kidney stones are hard crystals that develop in the tiny filters of the kidneys when certain chemicals normally passed in urine remain undissolved. Mostly, the crystals are very small and pass unnoticed. However, larger stones can form jagged edges and can grow so large, they get stuck in the narrow tubes leading out of the kidney (the ureters) or elsewhere in the urinary tract. That's when acute symptoms occur: sharp pain in the back or side, blood in the urine, and a frequent urge to pee.

If your urologist thinks the stone can pass on its own, he or she will advise you to drink plenty of water, and beyond suggesting over-the-counter analgesics, he or she may prescribe stronger pain medication, both to make you more comfortable and to help relax the ureter, easing the stone's passage.

For stones that become stuck in the urinary tract, a doctor will turn to one of two minimally invasive surgeries: ureteroscopy or lithotripsy. A uteroscope is a long, very thin instrument that is sent deep into the urinary tract, to examine a stone via a tiny lens and

to capture the stone or to break it up with a laser. In lithotripsy, a machine called a lithotripter uses powerful shock waves to break a stone into small pieces. In cases in which a large stone will not leave the kidney, a surgeon will perform "keyhole" surgery to retrieve it.

By far, the most common stones (accounting for up to 85% of cases) are those made from calcium oxalate. A diet that raises the level of oxalic acid in the body can lead to calcium stones, although there is a strong hereditary factor and men are more prone than women. The next most common are made from urate crystals that form when uric acid levels are high. These stones are often called "gouty stones," because urate deposits in the joints also cause gout, a form of arthritis.

The best way for your doctor to find out what stone you have is to test the stone itself. If your doctor thinks you will pass a stone in your urine, he or she will ask you to catch it in a strainer. He or she also may take a urine and/or blood sample to find out what caused your stone.

PREVENTING KIDNEY STONES

Calcium Oxalate Stones: Foods to Avoid

Diets that raise the level of oxalic acid in the body can cause of calcium stones. Chemically speaking, the kidneys seek to balance this acidity by binding calcium (often taken from your bones) to oxalic acid to form calcium oxalate, which can crystallize in the kidneys.

Animal protein—Although a clear link between protein derived from meat, eggs, and seafood and kidney stones is disputed, if you are prone to oxalate stones, the recommendation is to get more of your protein from soy, beans, chickpeas, whole grains, and lentils.

Calcium supplements—Here's a paradox. It's known that eating foods high in calcium actually prevents stones (because the natural calcium binds to oxalic acid in the digestive tract and not in the kidneys), but research suggests the same is not true for calcium derived from over-the-counter supplements.

Salt—Although it's a different chemical (sodium chloride), table salt increases the chances of stone formation by increasing the amount of calcium you excrete (thus lowering your body's calcium store).

Oxalate—If you are prone to calcium stones, limit foods high in oxalate: rhubarb, beets, spinach, chard, and chocolate. Drinking large quantities of iced tea can also increase the amount of oxalate in your body.

Uric Acid (Gouty) Stones: Foods to Avoid

Uric acid stones are caused by a diet rich in "purines," common chemicals found in foods and drinks that the body turns into uric acid. If you've had gout, you are likely to also experience a gouty stone, although they can occur in people who have never had the disease.

Seafood—Purines are found in high concentrations in anchovies, sardines, herring, mackerel, and scallops.

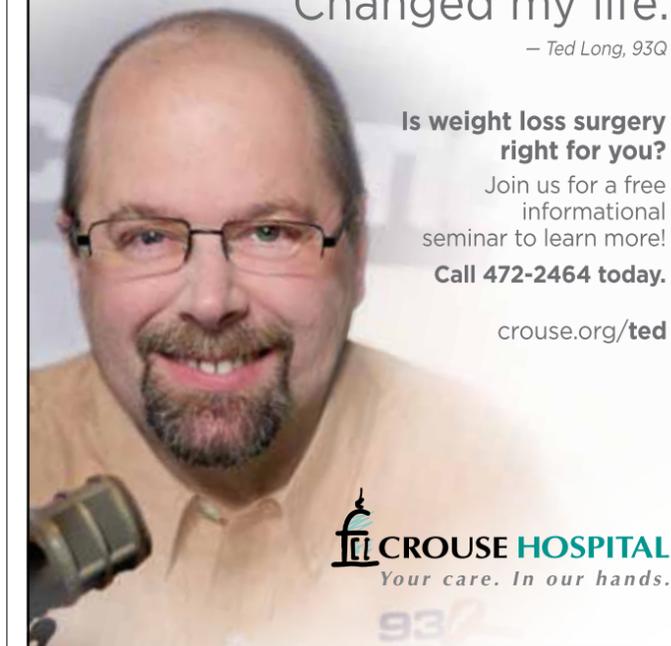
Meat—Gout and uric acid stone sufferers should cut down on red meat, especially organ meats such as liver and kidneys.

Alcohol—Mythbusting! It used to be thought that fortified wines caused gout and gouty stones (leading to the myth that gout is a "rich man's disease"), but beer is actually the worst offender. One study suggests men who drink more than two beers a day are 200% more likely to develop gout as non-beer drinkers.

WEIGHT LOSS SURGERY

Changed my life.

— Ted Long, 93Q



Is weight loss surgery right for you?

Join us for a free informational seminar to learn more!

Call 472-2464 today.

crouse.org/ted

CROUSE HOSPITAL
Your care. In our hands.

APA
ACTUARIAL
PENSION
ANALYSTS, INC.
Independent Benefit Professionals

Specializing in the design and administration of retirement programs including pension, profit sharing, 401(k) and cash balance defined benefit plans.

Our expert, credentialed staff is committed to helping each client understand the opportunities and responsibilities of sponsoring a tax-qualified retirement plan. We communicate complex concepts in non-technical terms and will make sure your plan meets both employer objectives and federal regulations.

7000 East Genesee Street
Fayetteville, NY 13066
(315) 445-2108
Fax (315) 446-5671