

Kidney Stones – Cheat Sheet (draft)

By Shaun Ramsden 4/10/19

In general stay away from too many salty foods and meats and other animal protein and don't forget to drink lots of water. It helps dilute the waste in your urine to make stones harder to form.

5 Main Types:

1. **Calcium Oxalate Stones:** This is the most common type. Low amounts of calcium in your diet will increase your chances of forming calcium oxalate kidney stones. Many people are afraid to eat calcium because of the name "calcium oxalate stones." However, calcium binds oxalate in the intestines. A diet rich in calcium helps reduce the amount of oxalate being absorbed by your body, so stones are less likely to form. Eat calcium rich foods and beverages every day (2 to 3 servings) from dairy foods or other calcium-rich foods. Also, eating high calcium foods at the same time as high oxalate food is helpful; for example, have low fat cheese with a spinach salad or yogurt with berries.

If you eat a lot of sodium, which is an ingredient in salt, it will raise the amount of calcium in your urine, after you are finished eating, any extra oxalate can stick to calcium in the kidneys, producing stones. Limit canned foods, packaged meats, fast foods, and condiments in your diet. Limit beef, pork, eggs, cheese, and fish as they may raise your chances of most types of kidney stones. Too much vitamin C can make your body produce oxalate.

High Oxalate Foods:

- Spinach (particularly bad) – never eat raw, always boil and strain the water)
- Rhubarb
- Almonds and cashews
- Miso soup
- Baked potatoes with skin
- Beets
- Cocoa powder
- Okra
- Bran cereals and shredded wheat cereals
- French fries
- Raspberries
- Sweet potatoes

2. **Calcium Phosphate Stones:** These form when calcium in the urine combines with the mineral phosphorus. If you've had one of these, you don't need to worry about oxalate.

Stay away from:

Animal protein-rich foods:

- Organ meats, like chicken or beef liver
- Milk, cheese, and other dairy products

- Eggs
- Seafood

Foods that can make urine more alkaline, including:

- Fresh fruit juices (except orange, cranberry, and nectarine)
- Vegetable juices
- Molasses

Processed foods

- Phosphorus is a common additive and preservative. Therefore, limit fast foods, soft drinks, frozen foods etc. Read the label for ingredients starting with “phos.”

Sodium

- Most people’s diet is far too high in sodium

- 3. Uric Acid Stones:** This comes when your pee is too acidic. These stones contain uric acid, a substance the body produces as it breaks down chemicals in food. Unlike with calcium oxalate and calcium phosphate stones, sodium isn’t a special issue here.

Stay away from:

- *Animal protein-rich foods:* Eating too much red meat, poultry, eggs, and shellfish does two things. It makes your body make more uric acid and it can rob your system of citrate, a substance that helps keep away kidney stones and maybe keep existing ones from growing.
- *Sugary drinks:* Drinks like lemonade, limeade, and fruit juices are naturally high in citrate that helps keep kidney stones at bay. Drinks with sugar or, especially, high-fructose corn syrup, can lead to stones.
- *Alcohol:* It can make uric acid levels in your blood go up.

- 4. Cystine Stones:** These come from a condition that runs in families. It makes a natural substance called cysteine to leak into your urine. Cystine stones tend to be larger than other types. If you’ve had one, you might have another.

Stay away from:

- Drinking too little water, by drinking lots of water you help discourage cystine from forming stones.
- Too much acid can help cystine stones grow more easily (in acidic pee). It’s the opposite to calcium phosphate stones, which favour alkaline urine. For this type of stone, stay away from meat and eat more fruits and vegetables, which have lower acid levels.
- Once again too much sodium with salty foods is not recommended.

5. **Struvite Stones:** More common in women, struvite stones form as a result of certain types of urinary tract infections. These stones tend to grow quickly and become large, sometimes occupying the entire kidney. Left untreated, they can cause frequent and sometimes severe urinary tract infections and loss of kidney function.

Recommendations:

Diet may not be effective at preventing struvite stones because they're caused by infections. But certain fluids may make the environment in your urinary tract more inhospitable to stone growth.

These include:

- Lemonade
- orange juice
- cranberry juice
- coffee and tea

As well, try to drink extra fluids. Crystals are less likely to form in dilute (watery) urine. Some doctors recommend drinking enough water and other fluids to produce 2 quarts of urine daily.

References:

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