



Uric Acid Stone Prevention

What you can do

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What is uric acid?

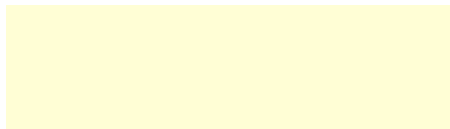
Uric acid is a waste of protein metabolism. It is also present in large quantities in some foods. It causes problems because humans do not possess the enzyme to digest it to a soluble form. When uric acid precipitates it can cause kidney stones or gout. Gout is a problem where uric acid crystals deposit in the joints, causing a painful inflammatory response.

How do uric acid stones form?

Like any stone, uric acid stones form when too much uric acid is present in the urine to remain dissolved. Uric acid stones form quickly as there are no known inhibitors in human urine to cope with fluctuation in output. A short period of dehydration in a susceptible individual is enough to begin stone formation. A sudden uric acid load from food can also precipitate a new stone. This means that what you eat and drink directly affects your chance of developing stone. There is also a strong tendency for these stones to run in families.

So what do I do?

Drink enough - You need to pass a pale urine consistently. Because stones form quickly, a single hot day working in the garden could lead to a stone. Aim for the colour below;



Rather than...



Drinking water is so effective that you can actually dissolve stones that have already formed.

Watch your diet - diet will have a major effect. Ask anyone who gets gout and they will be able to tell you which foods can trigger an attack. There are two aspects to diet control. One is the acid in the diet, and the other is the concentration of uric acid in various foods;

Acid from food

Uric acid's solubility in urine is dependent on the pH, or acidity of the urine. At a pH of 7 (neutral), urine can dissolve 1000 times the amount of uric acid than at pH 5 (acidic). Most people who form frequent uric acid stones have an acidic urine. Urine becomes acidic in response to diet. Proteins are the greatest source of acid in the diet. After a meal high in protein conditions become ideal for stone formation. So avoid eating large amounts of meat at one sitting and drink plenty of fluids with your meal. Adding some foods which have an anti-acid effect into the meal can also help. Dairy products are foods of this type. If you are particularly at risk taking a one off dose of the alkalization agents below can also help.

Uric acid in food

50% of the uric acid in the body comes from food. Below is a list of food high in uric acid;

Foods high in uric acid

Shellfish

Lobster, crayfish, prawns, mussels, oysters, crabs, scallops.

Organ meats

Liver, kidney, brains, sweetbreads

Red meat

Any red meat. Especially game.

Vegetables

Peas, beans

Fish

Anchovies, mackerel, sardines, herring

Limit Alcohol - Alcohol, especially in binges can cause an attack of gout or kidney stones. The effect of alcohol is to cause dehydration, which then increases the risk of uric acid precipitation. If you do drink alcohol, space your drinks with water to minimize the risks.

What can I get from my doctor?

Urinary alkalinization - as previously stated, the solubility of uric acid is pH dependent. If your urine is acidic (pH 5) it will dissolve a thousand times less uric acid than at pH 7. Alkalinization is usually reserved as a treatment to dissolve away stones that have already formed. Either bicarbonate of soda or citrate are used. The aim is to raise the pH of the urine to the range 6.5 - 7. The amount of citrate or bicarbonate required varies from person to person. You will be asked to monitor the acidity of the urine with a simple dipstick test. When you know how much to take you should remain on his dose until the stone has gone. It is important not to take too much as raising the pH over 7 increases the risk of calcium stones forming. Remember, water has a pH of 7 so, the more you drink, the more likely you are to achieve the right level of acidity. It is not unreasonable to take a dose of citrate or bicarbonate after a meal high in uric acid. This should not be seen as an effective way to eat lots of shellfish and brains.

Allopurinol - is a xanthine oxidase inhibitor. This enzyme is involved in a key step in the formation of uric acid. If you are shown to have a high uric acid level in the blood, then you may be recommended this tablet. It can be very effective in preventing recurrent stones where the cause is not related to diet or poor fluid intake. It is taken in a once a day dose of between 100 - 600mg.

In summary;

- Drink enough water
- Limit your protein intake
- Don't eat too much uric acid
- Avoid excessive alcohol
- Check your uric acid level in the blood

Where can I get more information?

Visit the web site at
www.hollywoodurology.com

for more detail and links to support groups and other information resources

All information provided is aimed to supplement and not replace the advice given from your treating doctor.

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