

## Kidney stone can be prevented

DR WAHEED ZAMAN

Kidney stone is one of the most painful disorders that lead a person to expensive and unpleasant emergency visits, hospitalisations and undergo surgical procedures.

Half of all untreated people will form additional stones and some will form stones chronically. Preventing kidney stones is the primary goal and we have peer-reviewed clinical data for last 20 years proving that the treatment guideline can help reducing kidney stone formation rates up to 80 percent.

Kidney stones form when urine has too many crystal-forming chemicals and/or not enough substances that protect against crystal formation. If the crystals do not rapidly pass through the urinary tract, they can accumulate and form stones. When the volume of urine is too low, stone-forming materials become concentrated helping to promote stones.

Kidney stones can be prevented if measures taken properly. During the last 30 years, treatment plans incorporating diet, fluids and medications have been developed to prevent or stall the formation of new stones.

The primary treatment have been proven in controlled clinical trials. Your

preventive treatment may consist of fluid, diet, and/or medications. Diet changes are just as essential as any medications your urologist may prescribe.

### General kidney stone prevention guidelines

**Increase fluid intake:** A very common question is how much water should I drink each day? You should be producing at least 2.5 liters of urine a day. How much you need to produce that much urine will vary depending on many things.

1. Activity level (The more active you are the more you perspire and need to replenish your body with fluids)

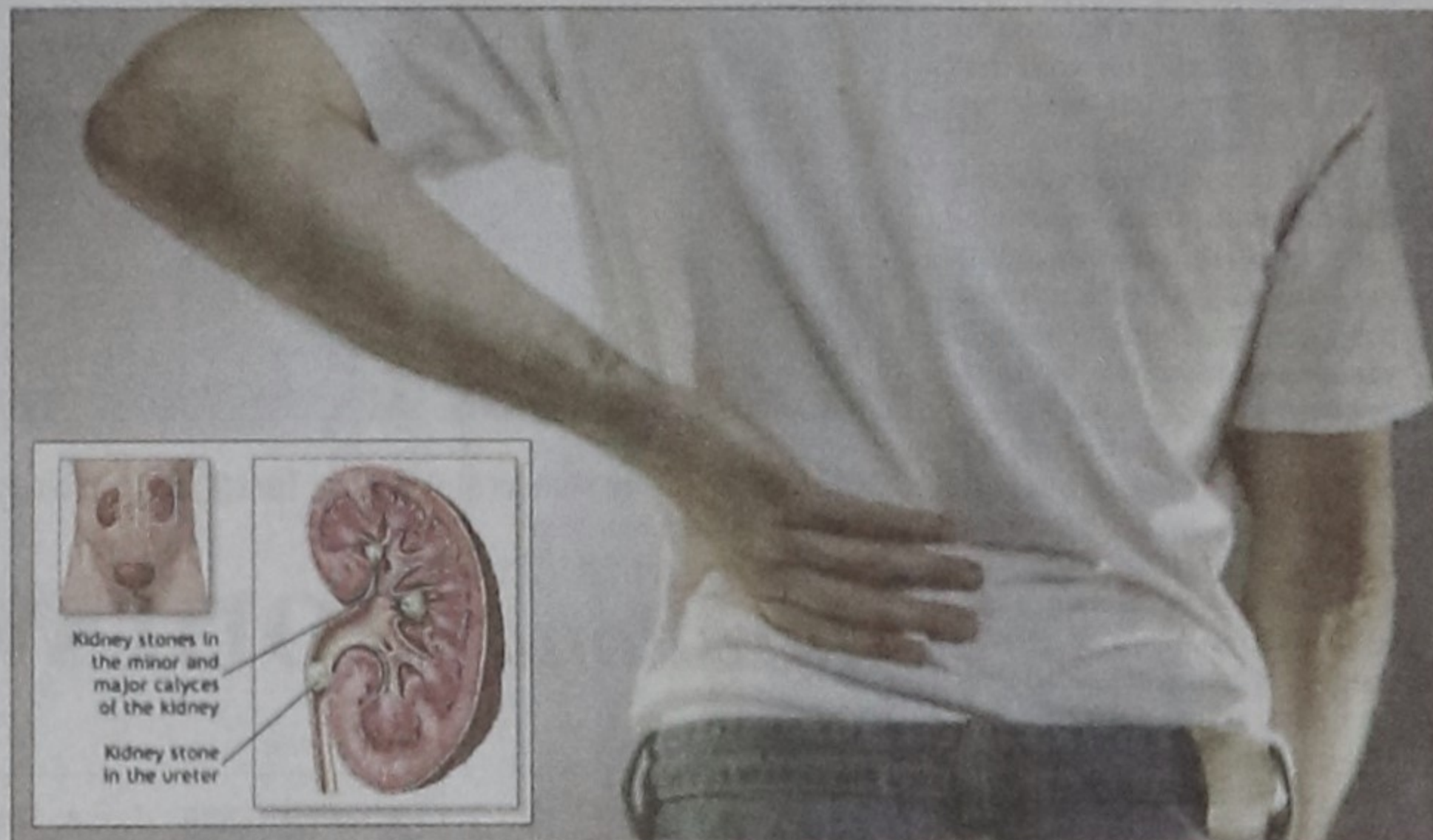
2. Living/working in a hot/dry environment

3. Frequent flying (Pilots, flight attendants, business travelers etc.) and flying all day can cause dehydration

4. Salt intake (High salt intakes increases water retention)

Increasing your fluid intake keeps urine diluted and helps keep crystals from forming.

**Low oxalate diet:** Unfortunately, oxalate is found in healthy plant foods. High oxalate containing foods are tea, beans, nuts, peanuts, peanut butter, soybean curd (tofu), sunflower seeds, chocolate milk, pepper, ginger, soy sauce, blackberries, grapes, lemon peel, bread, whole wheat etc.



If you have other medical conditions like heart related problems, diabetes, high blood pressure, etc. you may have been advised by another physician to eat a diet low in fat and sugar but rich in vegetables that may contain high oxalate.

Then your key to diet should be everything in moderation. Cut on the portion size of the high oxalate containing foods and the number of times a day or week you are eating these foods.

Here and there you will indulge and when you do, make sure you flush out the extra oxalate with an added 8 ounce glass of water - before and after your treat.

**Low salt diet:** Your sodium intake should be between 2300-3300 mg per day.

Sodium is added to many of our foods that we buy in restaurants or at the store. A single restaurant meal can contain anywhere from 1000 to 4000 milligrams of sodium! It is important to read the nutrition labels on all packaged foods and to look at the ingredients listed. As a rule, if salt and several sodium compounds are listed as ingredients, the product contains more salt than is advisable on a low-sodium diet.

**Low purine diet:** Purine is a compound that is mainly found in animal protein and when metabolised, breaks

down into uric acid. When you eat a diet that is high in protein (beef, poultry, pork and chicken), you have higher uric acid levels.

The normal diet contains from 600 to 1000 milligrams of purines daily. A low-purine diet is restricted to approximately 100 to 150 milligrams daily.

### Current treatments

The current treatments available for kidney and ureteric stones include conservative management (waiting for spontaneous passage), extracorporeal shockwave lithotripsy (ESWL), endoscopic techniques (rigid and flexible ureteroscopic lithotripsy), and percutaneous treat-

ments.

The American Urologic Association Stone Guidelines Panel has identified ESWL as a potential first-line treatment for both proximal and distal ureteric stones and for Kidney stones smaller than 2cm.

ESWL is a noninvasive procedure that uses shock waves to break up the kidney stone into small pieces that can more easily travel through the urinary tract and excreted from body. However, complex presentations frequently are treated best endoscopically.

Following its introduction in 1980, ESWL dramatically changed the management of Kidney stone disease. ESWL is a procedure in which kidney and ureteric stones are pulverised into smaller fragments by shock waves. These small fragments then can pass spontaneously in urine.

ESWL can not be performed in patients with acute urinary tract infection, uncorrected bleeding disorders, pregnancy, sepsis, and uncorrected obstruction distal to the stone. Otherwise, this noninvasive approach allows patients to be rendered stone-free without surgical intervention or endoscopic procedures.

The writer is a Consultant, Urology, Apollo Hospitals Dhaka.

## Garlic: A medicinal food



For many decades, people have been using garlic to prevent a countless of health conditions from cold - flu to complicated heart problems and certain cancers (especially colon).

It was used to protect against plague by monks in the Middle Ages. Great Hippocrates used garlic vapors to treat cervical cancer. It was used during World War-II as an inexpensive and apparently quite effective replacement for antibiotics. Allicin from crushed raw garlic is a very strong antibiotic that kills even MRSA staph on contact.

Today, researchers have shown that garlic can kill many types of bacteria, viruses and in some cases even intestinal parasites. Some believe that this is also considered a useful antioxidant that can boost the body's immune system.

Some scientists found, this can reduce LDLs or "bad cholesterol" and is a good blood-thinning agent to avoid blood clots which could potentially lead to heart attack or stroke. And, epidemiological and medical studies also suggest that individuals regularly consuming garlic show a lower incidence of stomach cancer and show lower blood lipid levels. Studies have also shown that consuming garlic generally lowers or helps to regulate

blood sugar.

Among general people, garlic is well known for its good effects on heart. Garlic is believed to be helpful in preventing and treating high lipid profile or cholesterol and triglyceride levels.

This is also effective in atherosclerosis and respiratory infections. One study reported that garlic was able to reduce arterial plaque formation by nearly 20 percent in some participants, especially in women.

Allicin and its derivatives are responsible for its special odor and many of its medicinal effects. Interestingly, Allicin is found when garlic bulbs are crushed. There are different kinds of garlic oils, garlic powder capsules, garlic pills with enteric coatings are available these days. Some are not genuine as well. In fact, garlic oils are the oldest kind of manufactured preparation.

There have been some reports of a possible interaction between garlic and warfarin that could increase risk of bleeding. Therefore, if you are taking anticoagulant (blood-thinning) medications such as aspirin, warfarin, dipyridamole, or indomethacin, you should avoid from having large amounts of garlic or consult a qualified doctor.



DR MD RAJIB HOSSAIN

Most foods contain several different kinds of fats including saturated, polyunsaturated, monounsaturated and trans fats - and some kinds are better for your health while some are harmful. When choosing fats, pick unsaturated fat over saturated or trans fat. Here's how to know the difference.

### Healthy fats

**Unsaturated fats:** Monounsaturated and polyunsaturated fats are considered as healthy fats. These fats, if used in place of others, can lower your risk of heart disease by reducing the total cholesterol and low-density lipoprotein (LDL) cholesterol levels in your blood. One type of polyunsaturated fat - omega-3 fatty acids may be especially beneficial to your heart.

Omega-3s appear to decrease the risk of coronary artery disease. They may also protect against irregular heartbeats and help lower blood pressure levels. Below are the best food sources of these healthy fats:

Monounsaturated fat include olive oil, peanut oil, canola oil, avocados, nuts and seeds. Polyunsaturated fat are vegetable oils (such as safflower, corn, sunflower, soy and cottonseed oils), nuts and seeds.

Another kind of good fat is omega-3 fatty acid which is found in fatty, cold-water fish (such as salmon), flaxseeds, flax oil and walnuts.

### Harmful fats

Saturated and trans fats (trans-fatty acids) are less healthy kinds of fats. They can increase your risk of heart disease by increasing your total and LDL (bad cholesterol). Dietary cholesterol is not technically a fat,

but it is found in food derived from animal sources.

Intake of dietary cholesterol increases blood cholesterol levels, but not as much as saturated and trans fats do and not to the same degree in all people. Below are common food sources of harmful fats:

• **Saturated fat:** Animal products (such as meat, poultry, seafood, eggs, dairy products, lard and butter), and coconut, palm and other tropical oils.

• **Trans fat:** Partially hydrogenated vegetable oils, commercial baked goods (such as crackers, cookies and cakes), fried foods (such as doughnuts and french fries), shortening and margarine.

• **Dietary cholesterol:** Animal products (such as meat, poultry, seafood, eggs, dairy products, lard and butter).

**Daily limits for fat intake**  
The U.S. Department of Agriculture (USDA) and the Department of Health and Human Services (HHS) recommend that fat make up no more than 35 percent of your daily calories.

This means that if you consume 1,800 calories a day; eat no more than 70 grams of fat daily. (To figure: Multiply 1,800 by 0.35 to get 630 calories, and divide that number by 9, the number of calories per gram of fat, to get 70 grams of total fat.)

Keep in mind, however, that this is an upper limit and that most of these fat calories should come from monounsaturated and polyunsaturated sources. In addition, the USDA and HHS recommend these upper limits for saturated fat and dietary cholesterol for healthy adults: Saturated fat should be less than 10 percent of your total daily calories and dietary cholesterol less than 300 milligrams a day.

## Anger really can kill you: study

REUTERS, Chicago

Anger and other strong emotions can trigger potentially deadly heart rhythms in certain vulnerable people, U.S. researchers said.

Previous studies have shown that earthquakes, war or even the loss of a World Cup Soccer match can increase rates of death from sudden cardiac arrest, in which the heart stops circulating blood.

"It's definitely been shown in all different ways that when you put a whole population under a stressor that sudden death will increase," said Dr. Rachel Lampert of

Yale University in New Haven, Connecticut, whose study appears in the Journal of the American College of Cardiology.

She and colleagues studied 62 patients with heart disease and implantable heart defibrillators or ICDs that can detect dangerous heart rhythms or arrhythmias and deliver an electrical shock to restore a normal heart beat.

"These were people we know already had some vulnerability to arrhythmia," Lampert said. Patients in the study took part in an exercise in which they recounted a recent angry episode while Lampert's team did a test

called T-Wave Alternans that measures electrical instability in the heart.

Lampert said the team specifically asked questions to get people to relive the angry episode. "We found in the lab setting that yes, anger did increase this electrical instability in these patients," she said. Next, they followed patients for three years to see which patients later had a cardiac arrest and needed a shock from their implantable defibrillator.

"The people who had the highest anger-induced electrical instability were 10 times more likely than everyone else to have an arrhyth-

mia in follow-up," she said.

Lampert said the study suggests that anger can be deadly, at least for people who are already vulnerable to this type of electrical disturbance in the heart.

"It says yes, anger really does impact the heart's electrical system in very specific ways that can lead to sudden death," she said.

But she cautioned against extrapolating the results to people with normal hearts. "How anger and stress may impact people whose hearts are normal is likely very different from how it may impact the heart which has structural abnormalities," she said.



Dr. Prathap C Reddy, Executive Chairman, Apollo Hospitals Group with a patient.

## Cervical cancer vaccine: What we need to know

ABU SIDDIQUI

Cervical cancer is a malignant cancer of the cervix uteri or cervical area. It may present with vaginal bleeding but symptoms may be absent until the cancer is in its advanced stages.

### Why the cervical cancer vaccine is important?

Cervical cancer is caused by Human Papillomavirus (HPV) which is spread through sexual contact. Most sexually active women get HPV at some time in their lives. It is most common in women in their late teens and early 20s. Most HPV types cause no symptoms and go away on their own. There are about 40 types of HPV that can infect the genital areas of women. Some types can cause cervical cancer, while the other types of HPV can cause warts in the genital areas of women, called genital warts. Genital warts are not a life-threatening disease. But they can cause emotional stress and their treatment can be very uncomfortable.

### Who should get the vaccine?

The HPV vaccine is recommended for 11 and 12-year-old girls. It is also recommended for girls and women age 13 through 26 years of

age who have not yet been vaccinated or completed the vaccine series.

### Will sexually active women benefit from the vaccine?

Ideally women should get vaccinated before they become sexually active. Women who are sexually active may get less benefit from it. This is because they may have already gotten an



HPV type targeted by the vaccine. Few sexually active women are infected with all HPV types covered by the vaccine so they would still get protection from those types they have not yet gotten.

### Should girls be screened for cervical cancer before getting vaccinated?

No. Girls do not need to get an HPV test or Pap test to

find out if they should get the vaccine.

### How much effective the HPV vaccine is?

HPV vaccine targets the types of HPV that most commonly cause cervical cancer and genital warts. The vaccine is highly effective in preventing those types of HPV in young women. The vaccine is less effective in preventing HPV-related

vaccine protection will last a long time. More research is being done to find out if women will need a booster vaccine many years after getting vaccinated to boost protection.

### Will girls/women be protected against HPV even if they don't get all three doses?

It is not yet known how much protection girls/women would get from receiving only one or two doses of the vaccine. For this reason, it is very important that girls/women get all three doses of the vaccine.

### What vaccinated women need to know?

Vaccination is not a substitute for regular cervical screening or for precautions against exposure to HPV and sexually transmitted diseases. Women will still need regular cervical cancer screening (Pap tests) because the vaccine will not protect against all HPV types that cause cervical cancer. Women who got the vaccine after becoming sexually active may not get the full benefit of the vaccine if they had already acquired HPV.

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## CyberKnife introduced at Apollo Speciality Cancer Hospital, Chennai

Apollo Speciality Cancer Hospital at Chennai has introduced the most advanced CyberKnife® Robotic Radio Surgery System recently, says a press release.

Robotic radiosurgery system is a breakthrough technology which is designed to treat tumors anywhere in the body with sub-millimeter accuracy. It brings an unparalleled approach to treating inoperable tumors in patients who previously had no options or only high-risk options for treatment now have a safer alternative.

As unveiled Asia's most advanced CyberKnife® Robotic Radio Surgery System, Dr Prathap C Reddy, Executive Chairman, Apollo Hospitals Group said, "In our continuing endeavor to fight cancer, we have brought the most advanced CyberKnife®

in the Asia Pacific. Undoubtedly the next frontier in cancer treatment."

The advanced technology behind CyberKnife® uses real time image guidance technology and computer-controlled robotics to deliver an extremely precise dose of radiation to targets, avoiding the surrounding healthy tissue and adjusting for patient and tumor movement during treatment.

The CyberKnife® system has significant benefits. Many of the complications associated with other conventional cancer therapies are minimized or eliminated by the CyberKnife® system. In addition, it is possible to treat multiple tumors at different locations in the body during a single treatment session. Patient normally experiences dramatic pain relief after the CyberKnife® treatment.



Clean living could cut third of many cancers