

KIDNEY STONES

Patient Fact Sheet

Introduction

Kidney stones are the most common urine disorder, with about 10% of the population having at least one kidney stone at some point in their life. Men get stones more frequently than women, as do people with a family history of stones or those who have had stones before. Stones occur more commonly in the southeastern United States and less commonly in the western states. Children can develop stones as well. This can be due to genetic factors, low birth weight with intravenous feeding, and deformities or abnormal anatomy in the urinary tract. However, children are also at risk if they do not drink enough fluid or eat a lot of fast food—which has high levels of salt.

Kidney stones are crystal-like masses that form in the kidney. The development of stones depends on chemicals that are present in your urine. Certain chemicals can speed up the growth of stones while other chemicals prevent the formation of kidney stones. Lack of fluid intake also contributes to the formation of stones. If you do not drink enough water, your urine will have less fluid and a higher concentration of the chemicals that form stones. So, by drinking more water you help to prevent the clumping together of chemicals that form stones.

Most stones are composed of calcium but others may be made of uric acid, phosphate, and other chemicals. They start out small in size and grow larger over time. The stones may stay in the kidney or they can travel down the ureter (the tube carrying urine from the kidney to the urine bladder). Stones may also form in the bladder or urethra (tube carrying urine to outside the body).

The symptoms you experience may include:

- Severe pain or very little pain, depending on the stone location. If the stone is blocking the flow of urine, you will experience pain but if the stone is not blocking the flow of urine, you may feel no pain. You may also have pain if the stone is moving down the ureter (the tube carrying urine from the kidney to the bladder). The pain can be located in the back, side, abdomen and groin depending on the stone location, and the pain may come and go.
- Nausea and vomiting
- Having to go the bathroom more often
- Blood in your urine because of the presence of the stone in the urinary tract

Signs that your health care provider may find on examination:

- Urine test may be abnormal—showing blood, white blood cells, or bacteria
- Tenderness to the back and/or abdomen
- Certain studies such as ultrasound, X-ray or CT scan will confirm the presence of a stone

Treatment

Not all stones require treatment. Stones that do not cause symptoms and are not at risk for damaging the urinary tract may pass on their own. In fact 80% of kidney stones will pass through your urinary tract when you urinate. If a stone is too large to pass, the following treatment options are available:

- Lithotripsy: the breaking up of stones by using shock waves. No surgery or incision is required for lithotripsy
- Ureterscopy: placing a scope into the urethra (where you urinate), the bladder, and finally up into the ureter, where the stone is then removed
- Percutaneous: placing a scope directly through the skin in your back into the kidney to remove the stone. (This is usually used for very large stones)
- Sometimes, before or after any of these procedures, a small flexible tube may be placed in the ureter to allow passage of urine or stone fragments.
- Some types of stones dissolve using specific medicines.

Prevention:

Drink at least 10 full glasses of fluid every day (5 of the glasses should be water)

Restrict the amount of salt and red meats you eat every day

Go to the bathroom to empty your bladder frequently

Avoid cola drinks

Eat fiber rich foods (nuts, cereals, grains)

Relaxation and stress management techniques

Take medications regularly given to you by your healthcare provider

Continue to see your healthcare provider regularly for check-ups and tests

Edited by Joan Colella, MPA, MSN, APN-BC, NP-C and Amy Driscoll, BSN, CURN

This material is for educational purposes only and should in no way be taken to be the practice or provision of medical, nursing or professional healthcare advice or services. The information should not be used in place of a visit, call, consultation or advice of your physician, nurse or other health care provider. The information obtained herein is not exhaustive and does not cover all aspects of the specific disease, ailment, physical condition or their treatments. Should you have any health care related questions, please call or see your physician, nurse or other health care provider promptly.

The Society of Urologic Nurses and Associates, Inc. is a professional organization committed to excellence in patient care standards and a continuum of quality care, clinical practice, and research through education of its members, patients, family, and community.

© 2008 Society of Urologic Nurses and Associates



For more information, contact:

Society of Urologic Nurses and Associates

East Holly Avenue Box 56

Pitman, NJ 08071-0056

Phone 888-TAP-SUNA or 856-256-2335

suna@ajj.com

www.suna.org