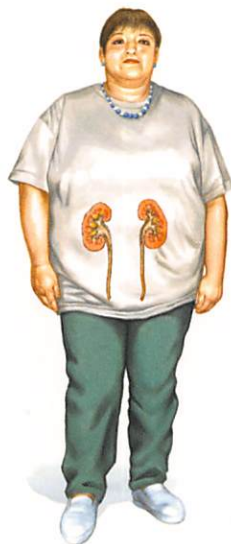
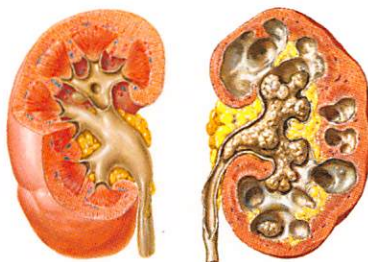


MANAGING YOUR KIDNEY STONES

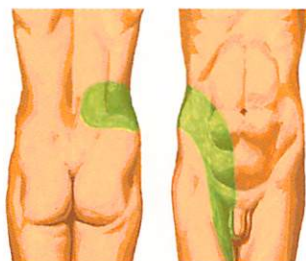
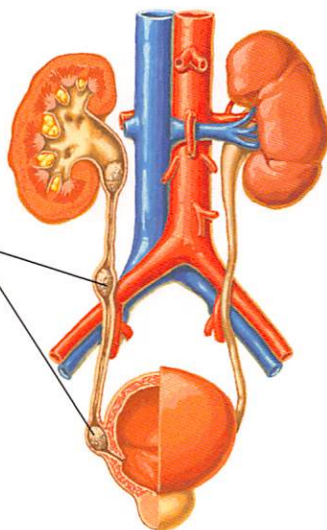


Location of kidneys



Normal kidney Kidney with stones

Large stones can fill the tubes (ureters) carrying urine to the bladder. Stones cause problems in urine flow and can cause infections.



Severe pain that goes from the middle of the back to the lower belly is the most common symptom.



Fever, sweating, chills, and urgent urination are symptoms that your stones may have caused an infection.

Imaging (x-ray, CT, or IVP) may be done to check for stones.



What Are Kidney Stones?

Kidney stones are hard deposits that form in kidneys. This process is called nephrolithiasis. Kidney stones can be tiny or up to several inches around. Very large stones that fill the tubes carrying urine from the kidneys to the bladder (ureters) are called staghorn stones.

What Causes Kidney Stones?

Stones may form if urine contains too much of certain chemicals, such as calcium, uric acid, cystine, or struvite (a mixture of phosphate, magnesium, and ammonium). Having a diet that is very high in protein and drinking too little water increase the risk of getting stones. About 85% of kidney stones are made from calcium. Uric acid stones occur more often if gout is present. Struvite stones form more often in infected urine (infection stones).

What Are the Symptoms of Kidney Stones?

About one-third of people have kidney stones, but only half of these have symptoms. Even without symptoms, stones may cause problems, such as infections and blocking urine flow. Stones getting stuck in ureters cause the symptoms.

The most common symptom is severe pain (urinary colic) that comes and goes and usually moves from the side of the back (flank) to the lower belly (abdomen). Other common symptoms include pain in the back, thigh, groin, and sex organs (genitals); blood in the urine; nausea; and vomiting.

If a stone causes an infection, additional symptoms may be chills; fever; painful, frequent, and urgent urination; and sweating.

How Are Kidney Stones Diagnosed?

The doctor takes a medical history, does a physical examination, and tests the urine. An x-ray or ultrasound study of your abdomen may be needed. These studies will uncover most stones (calcium, cystine, and struvite stones). X-rays cannot show uric acid stones. Computed tomography (CT) of the urinary tract may also be ordered. Rarely, if the diagnosis is still unclear, a special x-ray study (intravenous pyelogram, or IVP) may be done. In this study, dye is used to outline the stone.