



Kidney Stone Treatment: Lithotripsy

Why Do I Need Treatment for My Kidney Stones?

Your doctor has scheduled you for treatment for your kidney stones because your stones are either too large to pass on their own or will cause a great deal of pain when they do pass.

What is Extracorporeal Shock Wave Lithotripsy (ESWL)?

ESWL is the most common type of procedure used for treating kidney stones. It is a medical procedure that uses "shock waves", or high energy sound waves to break up kidney stones in the kidney, or the tube that carries urine from the kidneys (ureter). Since the shock wave is generated outside the body, the procedure is named "extracorporeal" shock wave lithotripsy. ESWL is effective for kidney stones that are in the kidney or ureter and may be used on people with a kidney stone that is causing pain or blocking urine. Kidney stones that are between 3mm and 2cm in diameter are most likely treated with ESWL.

How Does ESWL Work?

ESWL works by directing high energy sound waves or shock waves that are created outside your body through skin and tissue, until they hit the dense kidney stones. The shock waves pass easily through the soft tissues of the body but are strong enough to break the kidney stone. The shock waves break up the stones into small sand like particles that can more easily travel through the urinary tract and passed in the urine.

What Should I Expect During the Procedure?

In most cases, ESWL is done on an outpatient basis, which means you can go home after the treatment. The procedure usually takes about an hour and patients are generally discharged several hours following the procedure.

You will receive general anesthesia so you will not feel anything during the procedure. During the procedure, you will lie on a water-filled cushion and the surgeon uses X-rays to precisely locate the stone. High-energy sound waves pass through your body without injuring you and break the stone into small pieces. These small pieces move through the urinary tract and out of the body more easily than a large stone. Some patients may need a "stent", or a short tube of flexible plastic that holds the ureter open, which will help the urine pass and help small stone pieces to pass without blocking the ureter.

What Should I Expect After Treatment?

You will likely be able to resume normal activities within 1-2 days. You may have some degree of discomfort for several days after treatment; this is usually described as a dull ache of the kidney area. You may experience bruising on the skin and blood may also appear in the urine for 24-48 hours post procedure. If a kidney stone is not completely shattered, these tiny fragments may also cause discomfort as they pass. Drink plenty of water in the weeks following the procedure.

How Can I Prevent Kidney Stones?

The first step in potentially minimizing the formation of kidney stones is to understand what is causing the stones. Your doctor or a registered dietitian can advise you on an effective diet plan for the prevention of your specific type of kidney stone(s).

Kidney Stone prevention strategies:

- Increase your intake of fluids, especially water
- You may need to eat or drink certain foods while limiting the intake of others depending on the type of kidney stone you have. Ask your doctor if you would benefit from a consultation with a dietician.

For more information on kidney stone treatment, please call (925) 947-3322.

