

A patients guide to shock wave therapy (ESWL)

INTRODUCTION

Kidney stones are formed in the kidney when chemicals in the urine combine to form crystals, which grow into a stone. These may pass out in the urine; larger crystals may block the flow of urine or irritate the urinary tract. There are different types of kidney stones, the most common are composed of calcium oxalate crystals.

Some people are more prone to kidney stones. Certain factors may contribute to stone formation and include a low fluid intake; urinary tract infections; certain metabolic diseases; misuse of certain medications; immobility (bedrest for several weeks).

Extracorporeal Shockwave Lithotripsy (ESWL)

What is ESWL?

Lithotripsy uses high-energy sound waves which, when focused at a point in the body, can fragment stones. The shocks are generated by a device similar to a car sparkplug. These are focused using a dish and applied to the body over an area the size of a dinner-plate using a water cushion.

Where is the treatment given?

Modern mobile machines fit into a large room and consist of a special table together with x-ray and ultrasound imaging equipment. We have set up the equipment in our day surgery department. Before you arrive. Instructions will be sent to you regarding eating and drinking before the treatment but generally you will be asked not to eat for at least 6 hours. You may drink water or fruit juice until 2 hours before arrival.

When you arrive a nurse will briefly check your medical history, make routine observations of temperature, pulse, blood pressure and test the urine. The urologist, or a member of his team, will explain the treatment and ask you to sign a consent form. The anaesthetist will discuss painkillers and sedation. You will be asked to change into a hospital gown and it may be useful to bring your own dressing gown to wear over this. Before the treatment you will have an x-ray of the abdomen to confirm the presence and position of the stone.

During the treatment an anaesthetist will administer a mild sedative by means of a small needle in the back of the hand. This will keep you

comfortable throughout the procedure. During the treatment you will lie comfortably on a special table attached to the lithotripter. The treatment lasts about 40 minutes. You will probably hear a clicking sound, which is the shock generator. We usually deliver 2500-3500 shocks over about 20-30 minutes.

After treatment

Immediately after treatment you may feel quite drowsy. You will be taken back to your room to recover. Some refreshment will be offered. The ward nurse will perform routine post-op checks. Before you leave the day-unit the urologist will visit you again to discuss the procedure. You will have some painkillers and may be given antibiotics to go home with. You should not attempt to drive yourself home after treatment because of the lingering effects of the sedation. It is recommended that someone brings you to hospital and stays with you while you recover.

What to expect at home

A little deep pain in the kidney is not unusual after lithotripsy. One in five patients experience more intense pain but the painkillers prescribed for you can usually relieve this. It is common to pass some blood and grit in the urine after treatment as the stone fragments are passed. It is helpful if some of this debris can be collected, we can then analyze it. Some bruising on the tummy wall is common, this usually fades quickly. A follow-up outpatient appointment together with a repeat plain x-ray will be arranged about 3- 4 weeks after treatment. It may take several treatments before your kidney is completely clear of stone fragments.

Can anything go wrong?

Very occasionally one of the stone fragments can drop into the ureter and obstruct the kidney quite severely. If this happens it is likely that you will develop pain that is not easily relieved by the painkillers. If the pain is unmanageable, telephone one of the numbers overleaf. If bleeding is heavy, this will usually settle on a combination of bed rest and a slight increase in fluids. Again if the bleeding is not appearing to settle on its own, contact one of the numbers overleaf.

A small percentage of patients (5%) will require additional procedure to remove stone or fragments of stone which may cause a blockage, cause pain or fail to clear on their own. These risks depend on the size, position and composition of your stone and is different for every patient. Your urologist will explain these risks in each particular case.

Emergency contact details if you have problems after Lithotripsy:

In Office hours- 01462 456788

Or after hours:

Pinehill Hospital 01462 422822

Spire Harpenden 01582 763191