Lithotripsy
(Shock-wave treatment of Kidney Stones)

What is lithotripsy?

Stones in the kidney can be treated in many ways. The most convenient, effective and safe method is to break them with shock waves of sound. This results in fragmentation of the stone. The pieces thus created can be passed naturally, aided by the flow of urine. This is called Lithotripsy. This information leaflet is intended to give you an idea about what is going to happen and the after-effects of this treatment.

Why do I need the procedure?

Your doctor has found that you have a stone or a group of stones in your kidney or ureter (tube that links the kidneys to the bladder). Kidney stones can be painful and cause infection or blood in your urine. If nothing is done to remove them, they may continue to grow and could damage your kidney or block your ureter.

What are the benefits?

Lithotripsy is a procedure that can be performed as a day case meaning that you can come into hospital, receive the treatment and go home the same day. It avoids the need for surgery and a general anaesthetic.
What to eat

The night before you come in for your treatment, you will need to eat a low fat meal e.g. chicken, fish, steamed vegetables. Avoid fatty fried or spicy foods as these can cause wind in the bowel which can affect the efficiency of the treatment. If your procedure is in the morning, you must not eat any food after midnight the night before and drink only water no less than two hours before your procedure is due to take place. If your procedure is in the afternoon then you may eat a light breakfast such as tea/coffee and toast no later than 06.30 am and then no water after 11 am. This is due to the fact that the sedation used during the procedure may make you feel nauseous and thus having an empty stomach will reduce the risk of vomiting.

Where to go

When you are offered your appointment for your lithotripsy treatment, you will be asked to attend the Day Surgery Unit (DSU) at St. Peter’s Hospital, Chertsey. This is situated in close proximity to Heron ward leading off the main corridor on level 3 just passed Intensive Care Unit. The Lithotripsy Suite is located in the out-patient area and you will be escorted to the Lithotripsy Suite from DSU once you have been prepared for treatment.

A fresh x-ray may be ordered for you and you will be given a selection of pain killers before the treatment. You will be given full information about the procedure by the doctor and will be asked to sign a consent form.
What will happen?

The treatment begins with x-ray localisation of your stone. You will be asked to lie on the table and may have to move a few times before we are able to get the stone in focus. The stone may need to be localised by using an ultrasound. Once localised, the treatment will begin. You will feel a gentle but sudden shock to start with. You will get used to this quite quickly. The shock waves are given at a steady rate for a period of time. In all, around 3000 tiny shocks are given over a period of 45-60 minutes. The strength of the shocks varies and so does the frequency. There will be short breaks during the treatment to ensure you are comfortable and the stone remains in focus. We have the ability to change the strength as well as the frequency of shocks to tailor to your pain threshold. Sedation will be provided during the treatment which may cause you to become drowsy but this feeling will dissipate fairly quickly once the treatment has finished. We can of course stop the treatment if necessary. The session will last about 1 hour and can be repeated at a later date, if necessary.

What happens after the treatment?

You will be taken back to the Day Surgery Unit after the completion of the treatment and from there, return home. You will be supplied additional pain killers. A follow-up appointment will be made. A form will be given to you for an x-ray to be done on arrival at the follow-up appointment - to check that the stone has indeed fragmented and gone. Further treatment plan will be discussed at this visit.
What are the side effects of the treatment?

The treatment is designed to break the stone in smaller bits so you can pass them. The fragments are unpredictable in size. These can be large at times and can block your ureter - the tube that takes urine from the kidney to the bladder. This may result in pain. Please take the tablets given to you. There will also be some blood in your urine. This is normal and may last up to 2 or 3 days. There will be some pain when you pass the stone fragments and it is important to drink at least 2 litres of water a day during this time. You may also experience reddening and soreness to the skin at the target site where the treatment has been targeted to blast the stone.

As you will have received sedation, for the first 24 hours following treatment you should not:

- Drive or ride a bicycle
- Operate machinery
- Drink alcohol
- Take sleeping tablets
- Go to work

Make any important decisions, sign contracts or legal documents.

If you have continuous severe pain that is not controlled by the pain killers that you been prescribed and given, any heavy bleeding, or a high fever or temperature, please attend your nearest Accident and Emergency Department as you may have an infection.
Please note:

Please contact the hospital (see numbers below) at least two weeks before your procedure for advice on whether you need to stop your aspirin, clopidogrel or warfarin or if you are taking other anticoagulants (blood thinners).

Also, if there is a possibility that you may be pregnant you must tell the nurse or the doctor as soon as possible as the x-rays or treatment could damage your baby.

If your doctor has prescribed medication for high blood pressure then please ensure that you take these tablets as directed before you come in for your procedure.

You need to ensure that someone can drive you from the hospital after treatment as driving is not permitted for 24 hours after treatment. You must be free from infection at the time of treatment. The treatment may need to be postponed if urine test on admission reveals infection.

Emergency numbers:

St. Peter’s Hospital 01932 872000
Urology secretaries 01932 722053 / 722376
Lithotripter suite 01932 72 3124
Further Information

We endeavour to provide an excellent service at all times, but should you have any concerns please, in the first instance, raise these with the Matron, Senior Nurse or Manager on duty. If they cannot resolve your concern, please contact our Patient Advice and Liaison Service (PALS) on 01932 723553 or email pals@asph.nhs.uk. If you remain concerned, PALS can also advise upon how to make a formal complaint.
We can provide interpreters for a variety of languages, information in larger print or other formats (e.g. audio) - please call us on 01932 723553.

To use the Text Relay service, prefix all numbers with 18001.