Stone Disease Information Sheet

London Bridge Urology

Providing specialist urological care for over 35 years

Stone Disease

Stone disease also known as **Urolithiasis** is the formation of solid material (kidney stone) within the urinary tract (kidney, bladder and/or urinary tract). It is a common problem and the incidence is increasing, the lifetime risk of developing stones is around 10-15%. Stones tend to affect Caucasians and Asians more and are rarer in Afro-Caribbean populations. Unfortunately, in the majority of people there is no major cause found, though modern diets and lifestyles are often to blame and dehydration is a major contributory factor. Less commonly used terms for stones are:

Nephrolithiasis refers to the presence of such stones in the kidneys.

Ureterolithiasis refers to the presence of such stones in the ureter (tubes that propel urine from the kidneys to the bladder).

Cystolithiasis refers to the presence of such stones in the bladder

What is a stone?

A stone forms when a substance (often oxalate) becomes saturated in the urine and therefore forms solid crystals. These crystals can clump together to form a stone. If very tiny they can pass out without casing any trouble but if they grow (usually to a size greater than 2-3mm then they will often cause pain if they pass down the ureter (tube from kidney to the bladder) and may get stuck.

What are the symptoms?

Stones can sit in the kidneys without any symptoms or can cause grumbling pain in the loin area (the sides between the lower ribs and pelvis, and the lower part of the back). When stones get stuck in the ureter (the tube that carries urine from the kidney to the bladder) they can cause severe pain, which can start in the lion area and move round the groin and radiate in to the testicles or perineum (the area between your legs and between your genitals and back passage). When stones are close to reaching the bladder, they can also cause a need to pass urine more frequently. Often, they can cause some bleeding in the urine. If you have a urine infection, then this may cause you to have a high temperature. If you have a kidney stone and a high temperature then you should contact a doctor urgently as you may require emergency treatment.

How are they diagnosed?

Your urologist will take a careful history from you looking at the current episode and any previous problems including family history. The most effective method for diagnosis of kidney stones is a CT scan although monitoring of stones is usually done with x-ray or ultrasound. You will also need urine and blood tests.

London Bridge Urology
Outpatient & Diagnostic Centre
6th Floor
The Shard
St. Thomas's Street
London
SE1 9BS

info@lbu.london

www.lbu.london

020 7257 6466

How are they treated?

The treatment will depend on a number of factors such as the size of the stone, location, symptoms, presence of fever, findings of the urine and blood tests and also patient choice.
In principal stones can be treated by:

Observation – Small stones will often pass without treatment and if symptoms are manageable, it is often safer to leave them for up to 2 weeks. Your urologist may start you on medication to help the stone(s) pass.

Shock wave lithotripsy (M1400) – The procedure works like ultrasound and uses shock waves to break your kidney stones into small sand-like particles that can then pass out of the body through your urine. In this procedure the shock waves are administered externally making it completely non-invasive.

Ureteroscopy and laser stone fragmentation (M0190) – This is a procedure that involves a fine telescope (semi rigid or flexible) being passed through the bladder (via your urethra (water passage) and on up the ureter to the kidney. It is performed under general anaesthetic. Once the stone is found a laser is used to fragment and vaporise the stone into tiny pieces and dust. This "minimally invasive" procedure (i.e. it uses a natural opening & does not require an incision) often involves having a ureteric stent (a wire mesh or plastic tube to keep a passageway open) for a short time afterwards; the stent will need a further procedure (Ureteric stents M2930) to remove it, usually under local anaesthetic.

Percutaneous Nephrostomy (XR630) this is used for larger stones in the kidney which are generally not suitable for lithotripsy or ureteroscopy. A telescope is placed through the back using x-ray guidance with the aim of removing large volumes of stone. It is performed under general anaesthesia and usually requires 2-4 days in hospital.

How do I prevent stones?

After your stone(s) have been treated, it may be possible to perform a diagnostic examination (M1110) to tell you the type of stones you from and then provide detailed and specific dietary advice to try and prevent recurrence. Unfortunately, once you have had stones you do have a high chance of recurrence (50% at 5 years). Your urologist will look at any specific factors in your blood and urine that may need correction to help prevent future stone formation. This may require modifying dietary factors and increasing the volume of fluid drunk per day. Most stone formers should aim to produce 2-2.5 litres of urine per day – this may require a significant increase to your fluid intake. Your urologist will help you with tips to achieve this.

London Bridge Urology

Providing specialist urological care for over 35 years

London Bridge Urology has been providing specialist clinics dedicated in the diagnosis and management of all urological conditions for over 35 years. Today, we have the most up to date treatments and consultants who are leading experts in their fields.

You will be offered the best and widest choices of treatment available in London in the most up-to-date state of the art facilities. This means helping you not only through your initial consultation meetings and treatments but also to provide appropriate support and follow up consultations where necessary. We want you to experience the highest standards of treatment and care available.

London Bridge Urology
Outpatient & Diagnostic Centre
6th Floor
The Shard
St. Thomas's Street
London
SE1 9BS

info@lbu.london

www.lbu.london

020 7257 6466