EXTRACORPOREAL SHOCKWAVE LITHOTRIPSY (ESWL) or lithotripsy, for short, is a procedure where a machine is used to generate shockwaves, which pass through the body and when focused on a hard object such as a kidney stone, cause that object to vibrate into pieces. Most kidney stones can be shocked into pieces as small as fine grit or sand. These tiny pieces pass through the urinary tract and out of the bladder. Therefore, lithotripsy is a way to rid patients of their kidney stones without incisional (open) surgery.

Lithotripsy requires some sort of anesthetic, either intravenous sedation or general anesthesia. Occasionally, a regional anesthetic (spinal or epidural) can be used. Preparing for lithotripsy involves preparing for potential use of anesthesia as well as the lithotripsy. First, the patient is asked to eat or drink NOTHING after midnight. This includes cigarettes, candy, coffee, gum, etc. Regular medications, including blood pressure medicines and insulin, should be taken at the specific request of the urologist or anesthesiologist. (There may be instances where it would not be in the patient’s best interest to take the usual dose of medication on the day of the procedure.) AGAIN, ASK YOUR UROLOGIST OR ANESTHESIOLOGIST SPECIFICALLY WHICH MEDICINES TO TAKE AND WHEN. Some urologists also prescribe agents to cut down on the amount of gas in the gastrointestinal tract to better visualize the stone. Some examples of medications your doctor may prescribe to cut down on gas include Mylicon or Gas-X. Constipation may also cause a problem for lithotripsy, whereby stool in the colon could obscure the kidney stone. If you have not had a bowel movement within two days of the planned procedure, it is beneficial to take a laxative the night before to empty the colon of stool.

IF YOU ARE TAKING ASPIRIN OR OTHER BLOOD THINNING MEDICATION, you must inform your urologist well in advance of your lithotripsy. Generally, these must be stopped prior to lithotripsy.

An EKG (heart tracing) is required before the lithotripsy to be certain that each patient has a normal heart rhythm. (The shockwaves from the lithotripsy machine are coordinated with each heartbeat, and if the heart rhythm is abnormal, the machine may not fire the shockwaves.) Therefore, a preoperative EKG will be done as well as blood work and occasionally a chest X-ray. Preoperative testing should be done within 48 hours of the procedure. You will receive specific instructions on when to arrive at the hospital for preoperative testing.

You should have been given a requisition for a plain film X-ray (KUB) to be taken prior to the procedure. Please remember to bring this film with you.

On the day of the procedure, you should arrive at the lithotripsy facility dressed in comfortable clothes. Leave your contact lenses at home. You may wear removable partial dentures or full dentures unless instructed otherwise by the anesthesiologist on the day of the procedure. A family member or friend must drive you to and from the facility. Driving or operating dangerous machinery is not allowed on the day of any anesthetic, because of intravenous sedation or general.
WHAT TO EXPECT AFTER THE PROCEDURE

Related to the actual lithotripsy, the patient may feel achy or experience some pain in the back or pelvis. Redness or even frank bruising may be apparent over the flank. Plan to “take it easy” the day after the procedure. If needed, use Ibuprofen or Tylenol or the pain medication prescribed by the urologist. Be sure to pass all of your urine through the stone strainer. Save the stone fragments and bring them to the office at your return appointment for analysis. You may resume a light to normal diet as you feel hungry. In most cases you may resume sexual activity when you feel able.

WHEN TO CALL THE DOCTOR:

1. Fever. If you feel hot, take your temperature. If over 100.5, call immediately. Take two Advil (with food) or two Tylenol.

2. Pain not controlled by oral pain medications. Occasionally, a larger fragment may cause pain on its way out of the urinary tract.

3. Vomiting which does not subside. (Vomiting prohibits taking in fluids, which are required to produce a brisk flow of urine which carry the stone fragments out of the urinary tract.)

The after-hours telephone number is (214) 373-2010.

Best wishes for a successful and smooth lithotripsy experience!