

## **EXTRACORPOREAL SHOCK WAVE LITHOTRIPSY (ESWL) PATIENT INFORMATION**

This information sheet is designed to acquaint you with Extracorporeal Shock Wave Lithotripsy (ESWL) in the treatment of patients with kidney stones.

“Extracorporeal” = Outside the body

“Lithotripsy” = Stone crushing (Greek)

### **KIDNEY STONE DISEASE**

It is estimated that approximately 250,000 people are hospitalized each year for kidney stones. Although most stones pass by themselves, many patients require some type of treatment. Until recently, this involved a major surgical procedure and a long recovery time. Newer techniques now make it possible to treat most kidney stones without an operation or without making any incision into the kidney.

### **NEW TECHNOLOGY**

ESWL represents the latest advance in the treatment of kidney stones. Not only does it eliminate the need for surgery in most patients, it also has other important advantages, including a more rapid recovery time and a significant cost savings realized from outpatient therapy.

The ESWL treatment uses shock waves, which are high-pressure energy waves. These are carefully aimed and transmitted through water. They travel safely through skin and other internal tissues and disintegrate the kidney stone in fine sand-like particles that can be passed naturally without difficulty.

### **ESWL TREATMENT**

Before treatment, you will require certain tests and X-rays. Arrangements will then be made for your treatment at the hospital, usually as an outpatient.

The procedure is usually performed without general anesthesia. Mild sedation is normally all that is required during the 45-60 minute process. Although you may have heard of people being submerged in water for this treatment, you will never be wet or submerged. Our unit utilizes a water filled container that is placed against your side (much like a “water bed pillow”). You will experience a tapping sensation on our side and will hear a small “bang” each time a shock wave is sent towards your stone. Our anesthesia staff will monitor you throughout the procedure and ensure that you will be comfortable and not experience pain.

### **AFTER TREATMENT**

The majority of lithotripsy patients pass their fragmented stone particles with little discomfort; some require medication for pain, however. You will be carefully observed for any side effects during your short postoperative stay. Follow-up care will be provided through our office.

## **WHO CAN BENEFIT?**

All patients with kidney stone disease are potential candidates for ESWL. There are some exceptions: these are based on the location and composition of the stone(s), the function of the urinary tract, and the patient's body size. Patients who are taller than 6'6", shorter than 4', or those whose weight exceeds 300 pounds are not candidates. Patients with an obstruction of the urinary tract, which prevents passage of the stone fragments also, are not good candidates. Serious medical problems, pregnancy, cardiac pacemakers, and other extenuating circumstances require careful evaluation by a physician.

## **RESULTS**

Worldwide experience has confirmed the safety and effectiveness of ESWL. Approximately 85% of patients are stone free following the initial procedure. About 15% of patients have residual fragments of stones remaining in the urinary tract which may require repeat treatment or other techniques of removal. Only 1 to 2% requires open surgery.

Complications with the ESWL occur rarely. The most common adverse reactions are urinary tract infection, discomfort with passage of the stone particles, and bleeding around the kidneys. Usually, these have been readily managed with antibiotics, pain medication, and careful observation.

## **QUESTIONS?**

Please feel free to consult our staff with any questions you may have during our business hours: 8:30 to 3:30, Monday through Friday.