Sound Waves and Kidney Stones

Kidney stones are painful. Made up of minerals and acid salt, stones form when the urine becomes concentrated and the minerals crystalize and stick together. While many small stones will pass through urination, larger stones require surgery to remove. A different, more minimally invasive option—called lithotripsy—uses shock waves to break up the stones.

“Lithotripsy is a good option for most patients,” explains urologist, Michael Strickland, D.O. “The procedure takes about 30 minutes, and we use anesthesia to ensure the patient is comfortable and pain-free. Postoperatively, most patients will have minimal discomfort and will go home the same day.”

The procedure uses high-energy sound waves and an X-ray to pinpoint the appropriate area of the body to direct the sound waves, which break up the kidney stones into tiny pieces so they can be passed in the urine. Lithotripsy most often is used for kidney stones that are causing bleeding, damage to the kidneys, pain and/or urinary tract infections.

“Some patients may require more than one treatment if the stone is large,” Dr. Strickland says. “But, the prognosis is excellent.”

Dr. Strickland adds that it is important for patients prone to kidney stones to maintain appointments with the urologist. Complete metabolic workups—which include blood glucose, blood protein, albumin, kidney function, liver function, electrolytes, ammonium ion, complete blood cell count and vitamin B-12 tests—are important for kidney stone patients.

“Depending on the patient and the findings of the metabolic workup, we can intervene with diet or medication to reduce the risk of future kidney stones,” Dr. Strickland says.

For a condition that is already painful, it is helpful to know that there is an option that delivers relief without surgery and less pain.

To view a video on lithotripsy, go to tinyurl.com/Lee-litho