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## KIDNEY STONE SURGERY

**Extracorporeal Shockwave Lithotripsy (ESWL):** utilizes ultrasound or x-ray to pinpoint stone, then uses shock waves to break up stone.

- Noninvasive stone treatment option.
  - o Completed outpatient.
- Kidney stones must be visible on x-ray.
- Stone must be < 10mm in size.
- Stone free success rate with one treatment ~77%.
  - o Success rates will vary depending the stone size and density.
    - ~21% of cases will require retreatment.
    - Decreased efficacy in overweight/obese patients- limiting factors of skin to stone distance > 13 cm and location of stone (below pelvic brim) as contraindications.
  - o May have pain/discomfort while attempting to pass stone fragments.
- Contraindicated in those with liver and spleen conditions that would put them at a higher risk for bleeding.
  - o Please discuss all medical conditions with your healthcare provider.

**Ureteroscopy (URS):** a small telescope is inserted in through the urethra, up through the bladder, into the ureter, and into the kidney. The kidney stone is visualized and small basket is used to retrieve it or a laser is used to break up the stone.

- Does not require any incisions.
  - o Typically completed in an outpatient setting
  - o Typically, the treatment choice for failed ESWL.
  - o Treatment of choice for patients with complex anatomy or complex stones.
- Stone must be < 2cm (20mm) in size.
- Stone free success rate in one treatment ~92%
  - o If ureter is found to be too narrow for the telescope to pass through, a stent may need to be placed to dilated your ureter. Therefore, kidney stone treatment would be rescheduled for a later date.
    - A stent is a small tube that is placed in your ureter, it goes from the kidney to the bladder, to allow the kidney to drain.
      - A stent may cause urinary urgency, frequency, pain with urination, and visible blood in the urine.
        - o If you experience these symptoms, please speak with your surgeon about medication options to help control your symptoms, as prescription pain medication will not help with this.
  - After the stone is treated, your surgeon may elect to place a stent for 5-7days to allow your ureter to heal.
    - o This stent would then be removed in the office.

**\*\*This is an informational handout only; your healthcare provider will discuss what kidney stone treatment options may be appropriate for you\*\***

Please do not hesitate to contact our office with questions or concerns.

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