Percutaneous Nephrolithotomy or Nephrolithotripsy for Kidney Stones

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Treatment Overview

In percutaneous nephrolithotomy or nephrolithotripsy, the surgeon makes a small incision in your back to remove kidney stones. He or she then puts a hollow tube into your kidney and a probe through the tube. In nephrolithotomy, the surgeon removes the stone through the tube. In nephrolithotripsy, he or she breaks the stone up and then removes the fragments of the stone through the tube.

See a picture of nephrolithotomy.

You need either general anesthesia or regional or spinal anesthesia during this procedure. A small tube (catheter) may be inserted into the kidney to drain urine until the kidney heals.

What To Expect After Treatment

You will be in the hospital for at least 2 to 3 days. Most people are able to return to work within a few weeks.

Why It Is Done

This procedure may be used to treat kidney stones that are:

• Larger than 2 cm (0.8 in.) in diameter.
• Large and caused by an infection (staghorn calculi).
• Blocking the flow of urine out of the kidney.
• Not broken up by extracorporeal shock wave lithotripsy (ESWL).
How Well It Works

These procedures work for most people with stones in the kidney or ureter.

Risks

Risks of this procedure include:

- Bleeding.
- Holes (perforation) in the kidney. They usually heal without further treatment.
- Injury to other abdominal organs, such as the bladder or colon.
- Damage that affects normal kidney function.

What To Think About

A stone that has left the kidney may need to be pushed back into the kidney with a small tool (ureteroscope) before the surgeon can do the procedure.

These procedures are used more frequently than extracorporeal shock wave lithotripsy (ESWL) to remove larger stones, such as staghorn calculi. Every fragment of a staghorn calculus must be removed to prevent the stone from returning.

Complete the special treatment information form (PDF) to help you understand this treatment.

Credits

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