Traditional vs. robotic-assisted kidney surgery

Kidney surgery is traditionally performed as an open surgery, which requires a large incision. Another approach, conventional laparoscopy, is less invasive, but limits the doctor’s dexterity, visualization and control compared to open surgery.

With minimally invasive robotic kidney surgery using the state-of-the-art da Vinci® Surgical System, however, Henry Ford doctors are able to incorporate the best techniques of open surgery and apply them with a robotic-assisted, minimally invasive approach. This robotic technology offers several potential advantages to the patient, including:

- Significantly less pain
- Shorter hospital stay
- Faster recovery time
- Less blood loss
- Less risk of infection or complications
- Less scarring
- Increased potential for kidney preservation, particularly for complex kidney tumors
Robotic-assisted surgery for kidney diseases is available from the world’s leaders in robotic surgery at Henry Ford’s Vattikuti Urology Institute. Our doctors are among the few in the nation to perform complex, robotic-assisted surgeries for the treatment of kidney cancers and other conditions. The VUI kidney team includes physicians with fellowship training in advanced robotic and laparoscopic kidney surgery – a level of training that is very rare among surgeons.

**Robotic procedures offered at Henry Ford**

**USING THE DA VINCI® SYSTEM, OUR SURGEONS PERFORM:**

**Partial nephrectomy:** Surgery to remove a kidney tumor while preserving the remaining kidney (also called renal-sparing surgery). Most urologists cannot perform this very complex procedure and will either recommend removing the entire kidney or making a large, painful incision – including removing a rib – to perform it.

**Radical nephrectomy:** Surgery to remove the entire kidney for large tumors or disease.

**Pyeloplasty:** Repair of the blockage in the area where the ureter attaches to the kidney.

**Pyelolithotomy:** Removal of large kidney stones that fail treatment by other methods.

**Nephroureterectomy:** Removal of the kidney and ureter for transitional cell carcinoma involving the kidney or ureter.

**Renal Cyst Decortication:** Removal of kidney cysts that sometimes cause pain or high blood pressure.

For more information, call 1-800-HENRYFORD or log on to henryford.com/urology

How robotic surgery works

**THE DA VINCI® SYSTEM USES ADVANCED 3-D TECHNOLOGY TO HELP HENRY FORD SURGEONS PERFORM A MORE PRECISE OPERATION THAN CONVENTIONAL INSTRUMENTATION ALLOWS.**

During the surgery:

- Several small incisions are made in the body.
- Miniature instruments at the end of robotic arms – including a tiny camera – are inserted through these incisions.
- The movement of the surgeon’s hands on the robotic console is translated into precise movements of the instruments inside the patient.
- The surgeon is aided by two 60-inch by 80-inch flat projection screens and an advanced data monitoring system.

*The da Vinci® system cannot be programmed, nor can it make decisions on its own. The system requires that every surgical maneuver be performed with direct input from the surgeon, ensuring the highest level of patient safety.*