The da Vinci Surgical System is designed to provide surgeons with enhanced capabilities, including high-definition 3D vision and a magnified view. Your doctor controls the da Vinci System, which translates his or her hand movements into smaller, more precise movements of tiny instruments inside your body.

Though it is often called a “robot,” da Vinci cannot act on its own. Instead, the surgery is performed entirely by your doctor. Together, da Vinci technology allows your doctor to perform complex procedures through just a few tiny incisions. As a result, you may be able to get back to life faster without the usual recovery following major surgery.

The da Vinci System has been used successfully worldwide in hundreds of thousands of procedures to date.

All surgeries, including da Vinci Surgery, involve risk of major complications. Before you decide on surgery, discuss treatment options with your doctor. Understanding the risks of each treatment can help you make the best decision for your situation.
If you have been diagnosed with kidney cancer, you may be a candidate for a very effective, minimally invasive treatment — da Vinci Surgery. da Vinci Surgery uses state-of-the-art technology to help your doctor perform a more precise operation as compared to conventional surgery. It offers numerous potential benefits over open surgery, including:

- Excellent clinical outcomes and cancer control
- Short hospital stay
- Less blood loss
- Precise tumor removal and kidney reconstruction
- Excellent chance of preserving the kidney, where indicated
- Low rate of operative complications

As with any surgical procedure, these benefits cannot be guaranteed as surgery is both patient and procedure specific.

The Condition: Kidney Cancer

The kidneys are two small, fist-sized organs located behind the abdomen on each side of the spine. Their function is to produce urine, which is then stored in the bladder until it is emptied. By producing urine, kidneys remove toxic by-products and excess fluids from the body. This process helps to maintain a critical balance of salt, potassium and acid.

Each year, 208,500 people are diagnosed with kidney cancer worldwide. It is most common in North American countries. More than 13,000 U.S. residents die from the disease each year. Overall, kidney cancer is more common in men and is usually diagnosed after age 40. Fortunately, with early diagnosis and treatment, kidney cancer can be cured. If found early, the survival rate is about 60 percent.

The Treatment: Kidney Cancer Surgery

Kidney cancer is relatively resistant to noninvasive treatments like radiation and chemotherapy. As a result, the gold standard treatment for localized kidney cancer is surgery. Kidney surgery is traditionally performed using an open approach, which requires a large abdominal incision. Another approach, conventional laparoscopy, is less invasive but limits the doctor’s precision, visualization and control compared to open surgery.

da Vinci Surgery uses the best techniques of open surgery and applies them to a robotic-assisted, minimally invasive approach. The precision, vision and control of the da Vinci Surgical System allows your surgeon to provide a precise, minimally invasive treatment for kidney cancer. It may also provide your surgeon the means to preserve your kidney by removing just the tumor and not the entire kidney. And, preserving your kidney can help prevent future kidney disease and even dialysis.

Open Surgery Incision

da Vinci Surgery Incisions*

*In certain cases, your doctor may need to remove the entire kidney. If so, he/she will enlarge one incision for removal.