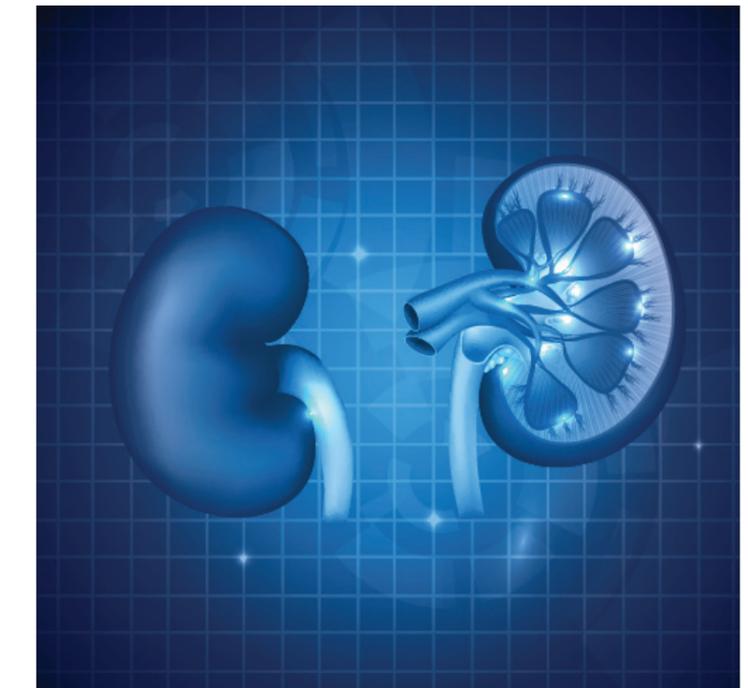




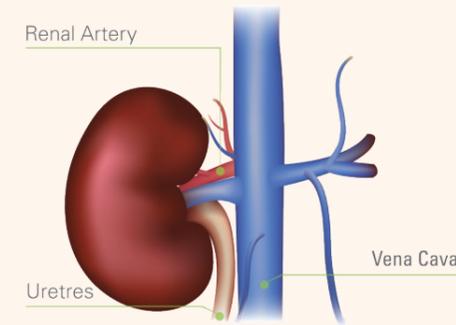
# KIDNEY CANCER TREATMENT WITH *da Vinci* SURGICAL SYSTEM



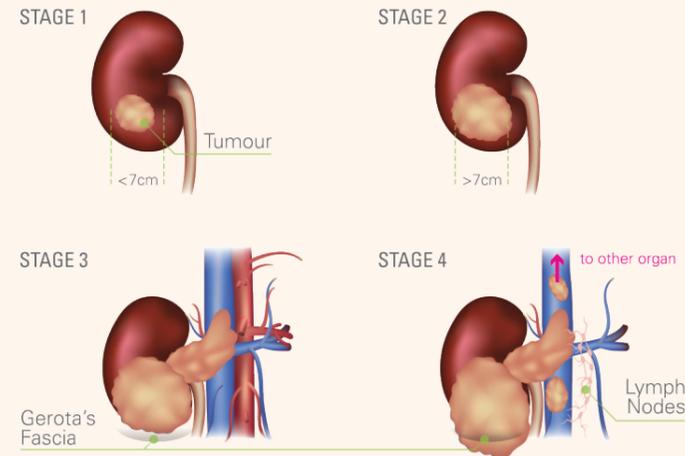
There are many different types of kidney cancer. The most common type is renal cell carcinoma which accounts for more than 80% of all kidney cancers. The good news is that most of kidney cancers are found before they spread (metastasise) to other organs. Cancers that are detected early can be treated with better success rate.



## HEALTHY KIDNEY



## STAGES OF KIDNEY CANCER



- STAGE 1** The tumour is found only in the kidney and 7 cm at its largest area.
  - STAGE 2** The tumour is only in the kidney and is more than 7 cm but not more than 10cm at its largest area.
  - STAGE 3** The tumour has spread to the vena cava above the diaphragm and into the right atrium of the heart or to the walls of the vena cava.
  - STAGE 4** The tumour has spread to areas beyond Gerota's fascia and extends into the adrenal gland on the same side of the body as the tumour.
- Detailed staging, adapted from [www.cancer.net](http://www.cancer.net)

For more information, kindly contact us at  
**T** +603-7491 9191  
**F** +603-7491 8181  
**E** [smc@sunway.com.my](mailto:smc@sunway.com.my)

**Operation Hours**  
 Monday-Friday 8.30am–5.30pm  
 Saturday 8.30am–12.30pm  
 Closed on Sunday and Public Holidays

**Sunway Medical Centre Sdn Bhd**  
 No. 5, Jalan Lagoon Selatan,  
 Bandar Sunway,  
 47500 Selangor Darul Ehsan,  
 Malaysia  
**T** +603-7491 9191 / 5566 9191  
**F** +603-7491 8181  
**E** [smc@sunway.com.my](mailto:smc@sunway.com.my)

[www.sunwaymedical.com](http://www.sunwaymedical.com)



## THE *da Vinci* SURGICAL SYSTEM

The *da Vinci* Surgical System is a surgical platform designed to enable complex surgery using a minimally invasive approach. The *da Vinci* Surgical System consists of an ergonomic surgeon console or consoles, a patient-side cart with three or four interactive arms, a high-performance vision system and proprietary *EndoWrist*® instruments. Powered by state-of-the-art technology, the *da Vinci* Surgical System is designed to scale, filter and seamlessly translate the surgeon's hand movements into more precise movements of the *EndoWrist* instruments.

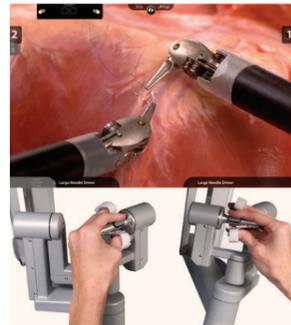
The net result is an intuitive interface with advanced surgical capabilities. By providing surgeons with superior visualisation, enhanced dexterity, greater precision and ergonomic comfort compared to other surgical approaches, the *da Vinci* Surgical System makes it possible for skilled surgeons to perform minimally invasive procedures involving complex dissection or reconstruction.



**Advanced 3D HD visualization**® with up to 10x magnification and an immersive view of the operative field.



**EndoWrist**® instrumentation, tiny and wristed instrument controlled by surgeon that bends and rotates far greater than the human hand.

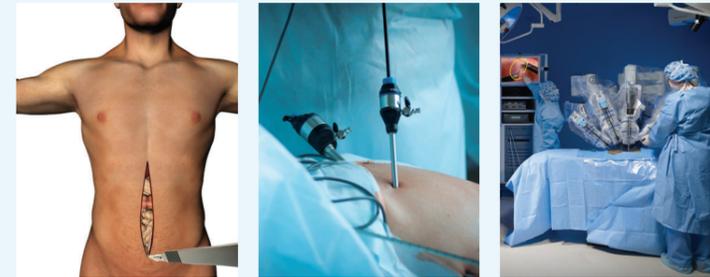


**Intuitive**® Motion technology, which replicates the experience of open surgery by preserving natural eye-hand-instrument alignment and intuitive instrument control.

## SURGERY OPTIONS

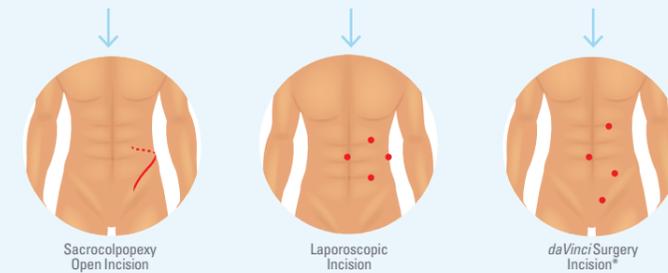
If your doctor believes you have a cancerous kidney tumour and suggests surgery, the following information may be helpful to you.

Surgery to remove your kidney is known as a nephrectomy. When surgeons remove only the tumour and leave the healthy portion of your kidney, it's called a partial nephrectomy. Surgery can be performed with open surgery or minimally invasive surgery (laparoscopy).



Sacrocolpopexy Open Incision

Laparoscopy Incision

*da Vinci* Surgery Incision

Sacrocolpopexy Open Incision

Laparoscopic Incision

*da Vinci* Surgery Incision\*

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

## OPEN SURGERY

Surgery is done through one large incision (cut) which allows doctors to touch your organs as they operate.

## MINIMALLY-INVASIVE SURGERY

During minimally invasive surgery (also called laparoscopy), the surgeon operates through a few small incisions using long instruments and a tiny camera to guide doctors during surgery.

## *da Vinci* SURGICAL SYSTEM

Another minimally invasive surgery option for kidney cancer patients is *da Vinci* Surgery.



## DA VINCI SURGERY: A MINIMALLY INVASIVE SURGERY OPTION

The *da Vinci* Surgical System enables your surgeon to operate through a few small incisions, like traditional laparoscopy. The *da Vinci* System features special surgical instruments that bend and rotate far greater than the human hand. It also has a magnified vision system that gives your surgeon a 3D HD view inside your body. *da Vinci* technology enables your surgeon to operate with enhanced vision, precision, and control.

*da Vinci* Partial Nephrectomy offers the following potential benefits compared to open surgery:

- Shorter hospital stay
- Less pain
- Less blood loss
- Smaller incisions for less scarring

*da Vinci* Partial Nephrectomy offers the following potential benefits compared to traditional laparoscopy:

- Shorter warm ischemic time (shorter is better for kidney function)
- Better renal (kidney) function rate

## RISKS & CONSIDERATIONS RELATED TO NEPHRECTOMY:

Poor kidney function is often due to limited blood flow, leaking of urine, cut or tear in the spleen, pancreas or liver; bowel injury, trapped air between the chest wall and lung, injury to diaphragm (muscle separating the chest from the abdomen), urinary fistula (abnormal bond of an organ, intestine or vessel to another part of the body), abnormal pooling of urine, limited or cut off blood supply to kidney, abnormal pooling of lymph fluid.

## IMPORTANT INFORMATION FOR PATIENTS:

Serious complications may occur in any surgery, including *da Vinci* Surgery, up to and including death. Risks include, but are not limited to, injury to tissues and organs and conversion to other surgical techniques. If your doctor needs to convert the surgery to another surgical technique, this could result in a longer operative time, additional time under anaesthesia, additional or larger incisions and/or increased complications. Individual surgical results may vary. Patients who are not candidates for non-robotic minimally invasive surgery are also not candidates for *da Vinci* Surgery. Patients should talk to their doctor to decide if *da Vinci* Surgery is right for them. Patients and doctors should review all available information on non-surgical and surgical options in order to make an informed decision. Please also refer to [www.daVinciSurgery.com/Safety](http://www.daVinciSurgery.com/Safety) for important safety information.

