Benefits of robot-assisted surgery

The daVinci robot combines the advantages of classic keyhole surgery with those of advanced robotic technology in the operating room.

Benefits for patients:
- Minimally invasive surgery
- „Microscopic" surgery at 10xmagnification
- Tissue-protecting surgery
- Less blood loss during surgery
- Less pain after surgery
- Preservation of continence and potency in prostate and urinary bladder cancer surgery possible
- Accelerated wound healing
- Very good cosmetic results
- Faster recovery

Benefits for the doctor:
- Maximum flexibility of the instruments (7 degrees of freedom)
- Three-dimensional view of the surgical field
- Increased precision and finer movements
- Surgical precision improved due to 'tremor elimination'
- Relaxed position, avoiding fatigue

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4 Urologie

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Anstalt öffentlichen Rechts

Department of Urology

Robot-assisted Surgery in Urology

UNIVERSITÄT LEIPZIG
Medizinische Fakultät

Dear patients!

The Department of Urology at University Hospital Leipzig is one of the leading hospitals in the laparoscopic urological surgery („keyhole surgery").

Increasingly, Robot-assisted surgery using the daVinci system is being employed with keyhole surgery.

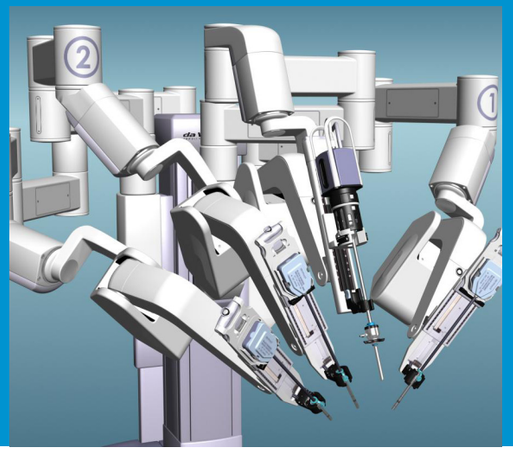
The daVinci robot is one of the latest developments in the world of surgery. The

System consists of a control console and the actual Surgical robot with 4 arms. The surgeon is placed at the console throughout the procedure; the robot arms with 3 instruments and a high-resolution 3D camera are equipped to move with precision, facilitating delicate and precise surgery.

We endeavor to deliver a high quality service, and a quick recovery in a friendly environment. This is state of the art technology, for the benefit of all patients.

Yours truly,

Prof. Dr. Jens-Uwe Stolzenburg



Bladder

Robot-assisted radical cystectomy (urinary bladder removal) is a new and effective, minimally invasive surgical technique for patients with advanced bladder cancer.

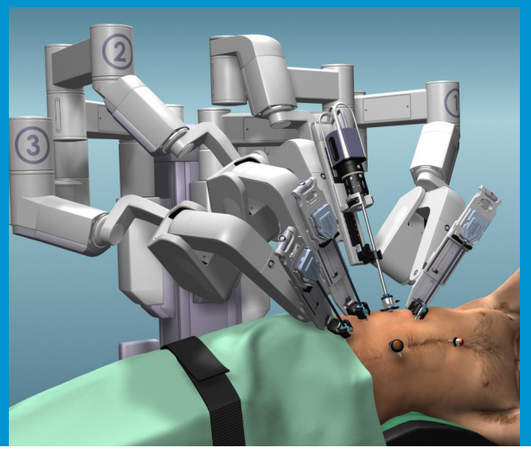
The bladder is removed carefully and precisely. Subsequent restoration of voiding is necessary. The treatment is tailored individually, depending upon factors such as extent of tumor and patient preference. There are a variety of techniques available; these include a stoma, or a 'reservoir' which is emptied intermittently or indeed a newly constructed bladder using the intestine that enables almost normal urination after the operation (so-called neobladder).

In some patients with a neobladder, the urinary sphincter as well as the nerves responsible for erectile function can be preserved, to optimize continence and potency post-operatively.

Prostate

Prostate cancer is the most common malignant tumor in men. If the tumor is confined to the prostate, surgical cure is possible. We developed a special technique of laparoscopic / endoscopic radical prostatectomy (EERPE), that we have so far successfully employed in over 4,000 patients. Due to the high precision of the daVinci robot, we can further enhance surgical precision to better visualize and spare important structures as nerves responsible for erectile function and the urinary sphincter.
Compared to open surgery, there are a number of benefits for the patient: less pain and less blood loss, smaller surgical scars and significantly faster removal of the urinary catheter and therefore a more rapid return to normal daily activities.

The daVinci system, coupled with the highly evolved technique of EERPE offers excellent results in terms of cancer control, continence and potency.



Kidney and ureter

Laparoscopic removal of a kidney (nephrectomy), due to a poorly functioning kidney or a malignancy is an important part of our daily work. With early cancer diagnosis, there is a very good chance of a cure.

Small kidney cancers no longer require removal of the whole kidney. Instead, only the cancerous lump is removed (partial nephrectomy). In this organ-conserving surgery, robot-assisted surgery proves to be very useful.

Other indications for surgery, in which the use of the daVinci has been employed successfully, are narrowing of the ureter (ureteropelvic junction obstruction, ureteral stenosis). Removal of the „sick" part of the ureter with precision and re-joining the edges (anastomoses) is facilitated enormously by the use of the daVinci which facilitates organ preservation and speedy healing.

Working with the daVinci

Our specialist team of doctors and nurses has already carried out numerous operations with the daVinci system, successfully. The daVinci robot is now being used in day to day operations on the bladder, prostate, kidney and ureter. For many patients in whom a classic 'open' operation would be performed, the robot-assisted method is a suitable alternative.

The surgeon sees inside the patient with three-dimensional vision and has a superior spatial perception with optimum depth assessment. The angled instruments of daVinci with 7 degrees of freedom mimic the wrists of the surgeon, allowing unprecedented flexibility. Minute jerky or trembling movements, which are inevitable otherwise are compensated by the system. The ergonomic seating position also allows the surgeon to perform a relaxed and focused surgery, if necessary, over many hours.