

Piedmont Triad Edition

# M.D. NEWS

A BUSINESS AND LIFESTYLE MAGAZINE FOR PHYSICIANS



## Improving the Experience of Prostate Cancer Surgery

Robotic Prostatectomy at Wake Forest University Baptist Medical Center

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**Traditional laparoscopic instruments are straight and do not bend. EndoWrist Instruments move like a human wrist, allowing increased dexterity, maneuverability and precision.**

According to the American Cancer Society, prostate cancer continues to be the most common form of cancer found in men in the United States. In fact, prostate cancer alone accounts for one-third of all cancers diagnosed in men, with approximately 180,000 new cases each year. The second leading cause of cancer death after lung cancer — one of six men in the U.S. will be diagnosed with this disease during their lifetime.

Largely as a result of greater awareness, one bit of good news is that over the past 10 years patients are clearly being diagnosed earlier. Because of this, most men with newly diagnosed prostate cancer are candidates for treatment that can cure their disease. Furthermore, although the reasons are not completely understood, over the past 10 years there has also been a striking decline in the death rate from prostate cancer in this country. These facts,

coupled with new treatment options, provide promise for patients facing this disease in terms of positive outcomes and improved quality of life.

“Surgery has been a treatment of choice for many years, and prior to the development of new technology and techniques, open prostatectomy was the norm,” said M. Craig Hall, M.D., professor of Urology and head of Urologic Oncology at Wake Forest University Baptist Medical Center.

At Wake Forest Baptist, a new, advanced and minimally invasive laparoscopic procedure offers patients an alternative to traditional radical prostatectomy. Termed robotic-assisted laparoscopic prostatectomy, the technique incorporates the use of the da Vinci™ Surgical Robot to perform the procedure in a less invasive, but equally effective manner — with many advantages for the patient.

Since the system was installed more than a year ago, Hall has performed this surgery on numerous patients with successful outcomes.

“This is an excellent option that has been well received by our patients and faculty,” said Hall. “This new alternative is one that every patient with the diagnosis of prostate cancer who is interested in surgical treatment should consider.”

### UNDERSTANDING THE SURGERY OPTIONS

Prostatectomy is performed largely through three different techniques. The open surgical approaches include retropubic (through an incision in the abdomen) and perineal (through a surgical incision between the scrotum and anus). The minimally invasive robotic approach is performed through several (usually 5) “ports” created in the lower abdomen. These ports are between 5 and 10 mm in diameter, and allow the placement of a camera and laparoscopic instruments to carry out the surgery. No incision is made.

### Advantages of the Robotic-Assisted Prostatectomy

- Better visualization of the internal structures, which leads to a more efficient surgery — and a more precise surgery
- Magnified view helps the surgeon avoid damaging the delicate structures and nerves surrounding the prostate
- Dramatic reduction in blood loss
- Small incisions result in a shorter hospital stay and faster recovery
- Length of time the catheter is left in the body is reduced
- Less pain
- Less risk of infection
- Less scarring
- Quicker return to normal activities

The actual procedure with the robotic approach is very similar to that done in a standard open fashion. The prostate, seminal vesicles and surrounding lymph nodes are removed and sent to pathology post-surgery to determine if the cancer has spread beyond the prostate gland. The potential complications of prostatectomy can include permanent impotence and/or urinary incontinence. Because of advances in surgical techniques, these consequences are not as common as they used to be. However, all men who have had their prostate removed will not produce semen and thus, will have dry orgasms.

## UNDERSTANDING ROBOTIC PROSTATECTOMY

The da Vinci Surgical Robot offers the surgeon sophisticated tools to perform complex laparoscopic surgery. While the robot doesn't perform the surgery, the surgeon uses the robot to increase precision.

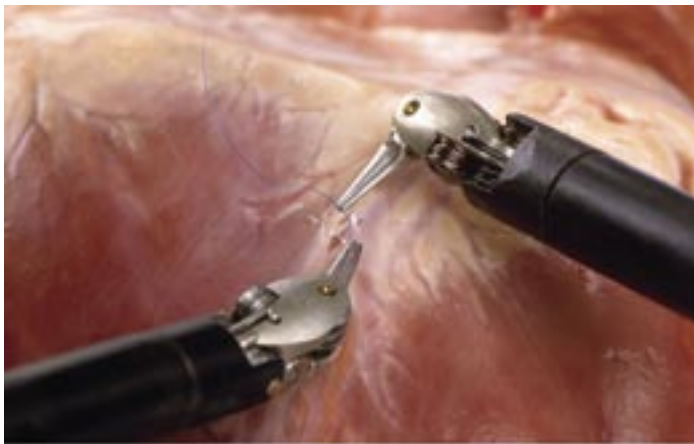
The surgeon commands three robotic arms from a console stationed only feet from the patient. The surgeon's feet work pedals and his hands direct the robot to cut and stitch with all the dexterity of a surgeon's hands — without the normal human tremors.

For the surgeon, there are a number of advantages — the 3-D camera system provides a magnified close-up view for better visualization of the internal structures, which leads to more efficient and precise surgery.

The surgeon removes the prostate, nearby lymph nodes, seminal vesicles and adjacent tissue through the small laparoscopic ports and then closes the ports with a few stitches.

The magnified view also helps the surgeon avoid damaging the delicate structures and nerves surrounding the prostate — “nerve-sparing surgery” — which increases the chances of the patient regaining erectile function and continence after surgery.

**The surgeon's hands are placed in special devices that direct the instrument movement.**



**Surgical nurse Amanda Smith loads a daVinci endoWrist needle driver. EndoWristed instruments provide the surgeon the ability to suture, dissect, cut and coagulate tissue with unparalleled dexterity and precision in an 8 mm instrument.**

## ADVANTAGES OF ROBOTIC PROSTATECTOMY

In a recent study published by investigators from the Vattikuti Urology Institute (at Henry Ford Health System in Detroit), the robot-assisted prostatectomy proved to have a number of advantages over traditional open radical prostatectomy. They found that the robot-assisted procedure was safer, less bloody and required shorter hospitalization and catheterization. In addition, and most importantly, the median time to return to sexual intercourse was 340 days after robotic prostatectomy. Only one-half of patients undergoing traditional open prostatectomy were able to resume intercourse by two years.

With the da Vinci Surgical Robot system, physicians have achieved similar, if not better, outcomes in several areas through the minimally invasive surgical approach.

The small incisions result in a shorter hospital stay and faster recovery. There is a definite reduction in the loss of blood — an average of 150 cc per case with the robotic approach, compared to 500 to 700 cc per case with traditional surgery. “Our early experience has also shown that patients recover their urinary control more quickly following the robotic approach,” said Hall. “Most patients report surprisingly good control within a week of catheter removal. We continue to take out the catheter one week following surgery, which also provides a good time to sit down with the patient and go over the final pathologic report and outline a plan for further follow-up.

“These advantages allow patients to return to their normal functional daily activities more rapidly, offering less discomfort and improved quality of life — which is always our goal,” said Hall. “We are also hopeful that this technology will result in improvements in recovery of sexual function, but it is too premature to make any conclusions regarding this issue yet.”

## FROM THE PATIENTS' PERSPECTIVE

“The robotic prostatectomy has been all I hoped for and more,” said John Lamb, a busy general manager in turnarounds and start-up companies, who came to Wake Forest Baptist from Asheboro, NC.

A 63-year-old in very good health, who has been diligent in receiving regular health check-ups, Lamb was not overly concerned when a PSA reading two years ago was higher than normal. He underwent a biopsy which proved negative, and continued with semiannual follow-ups to check on his status. A biopsy in mid-2004 came back positive.



**The surgical team includes: (left to right) Amanda Hughes, R.N.; surgical coordinator Sheila Kidd, R.N.; surgeon M. Craig Hall, M.D.; and chief resident Dennis Kubinski, M.D.**

That's when he decided it was time to take action. "I explored several options of where to receive my care, and came to see Dr. Craig Hall at Wake Forest Baptist last December," said Lamb.

They evaluated the various surgical options, comparing both radical prostatectomy and the minimally invasive robotic-assisted laparoscopic approach.

"The minimally invasive technique seemed a little less intrusive and offered some advantages over radical prostatectomy," Lamb added.

He underwent surgery on a Monday in February, went home on Wednesday and had the surgical staples and catheter removed the following week.

"This whole process went a lot better than I thought it would and my prognosis looks real good," said Lamb. "I'm very impressed with everyone I've dealt with — the entire staff was compassionate, responsive and capable. I'd strongly recommend this option to anyone considering prostatectomy."

For Kenneth Payne, a 49-year-old African-American who works as a custodian for the Winston-Salem school system, the diagnosis of prostate cancer came as a complete surprise.

"Like most men, and particularly African-American men, I rarely went to the doctor unless I had to. Part of it is cultural, and honestly, part of it is fear," said Payne.

"But I heard about a free prostate cancer screening at the Downtown Health Plaza and for some reason, perhaps a sign from God, I decided to go. The result? The doctors found cancer — on a scale of 1 – 10 (with 10 being the worst), mine was a 9!"

"Dr. Hall fully explained the differences between radical prostatectomy and the new robotic surgery. I chose the robotic surgery because it seemed like it would be easier and I'd be back on my feet faster," said Payne.

Payne had the surgery in January and was back to work by mid-March. "I'm very pleased," he said. "It didn't leave any scar — you can't even see where they

made the incisions — and I recuperated faster, because I wasn't cut as much.

"When I went back for my visit after surgery the test results were so great that the doctors told me I should frame my report — the cancer is totally wiped out!"

"I would encourage every man, especially African-American men, to go ahead and be screened so they can be a survivor like me. I am blessed that my cancer was found at a stage when it was curable — if I hadn't had that free screening I might never have had the cancer detected until it was too late. To all men — stay informed and take charge of your health — it can mean the difference between life and death."

## THE FUTURE LOOKS BRIGHT

"As a physician, it is always gratifying when we can offer our patients technology that has excellent outcomes, and which also provides added advantages over traditional surgery," said Hall. "The daVinci Surgical Robot has proved to be one of those advanced technologies that offer great promise for the future. It has been well-received by both patients and our staff. I envision this may become the surgery of choice for prostatectomy in the years ahead."

*For more information on treatment of prostate cancer, or to refer a patient, call the Physician Access Line (PAL) at (336) 716-7654, or visit our Web site at: [www.wfubmc.edu/cancer](http://www.wfubmc.edu/cancer). For more information on the daVinci Surgical Robot go to: [www.davinciprostatectomy.com](http://www.davinciprostatectomy.com). ■*



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