ROBOTIC SURGERY FOR PROSTATE CANCER

Nearly 250,000 men are diagnosed with prostate cancer each year. 1 in 8 men will be diagnosed with prostate cancer. More than 2.9 million men are living with prostate cancer in the U.S. today.

Typically, surgery to remove the prostate is done to treat localized prostate cancer. Surgery may be used alone or in conjunction with other treatment options. If you and your doctor believe that surgery to remove the prostate is the best treatment option for you, you may wish to consider robotic surgery.

_prostatectomy_: a prostatectomy is the surgical removal of the prostate.

TYPES OF SURGERY

There are different types of surgeries to remove the prostate. Choosing the one that is right for you is important. When choosing your treatment path, it is critical to ensure you receive multiple opinions from different doctors and consider the experience level of the doctors that will be performing the surgery. Having a highly experienced surgeon is linked to improved outcomes.

Open Surgery: Doctors make a large incision in the lower abdomen allowing them to directly see and work in the abdominal area.

Laparoscopic Surgery: Doctors make small incisions in the abdomen and use special long-handled tools to perform the surgery while viewing magnified images from the laparoscope (camera) on a video screen.

Robotic Surgery: Doctors make small incisions in the lower abdomen to remove the prostate. He or she sits at a console in the operating room to utilize the instruments attached to a computer-assisted mechanical device (robot). The robotic device allows for more precise movement than surgeon’s hands.

It is estimated that over 86% of prostate cancer surgeries are da Vinci robot-assisted.
**BENEFITS OF ROBOTIC SURGERY**

- Compared to traditional open prostatectomy procedures that require large incisions, robotic surgery uses a few small incisions.
- Robotic surgical systems have been available for patients for decades with thousands of expert surgeons trained.
- Surgeons that perform robotic-assisted surgery often say that robotic systems extend the capabilities of their eyes and hands.
- Patients may experience similar, or sometimes faster, return of erectile function than patients who had open surgery.
- Patients may experience similar, or sometimes faster, return of urinary continence than patients who had open surgery.
- When compared to patients who had open surgery, patients undergoing robotic surgery may have less chance of being readmitted to the hospital after leaving.
- Likewise, patients who had robotic surgery may stay in the hospital for a shorter amount of time than patients who had open surgery.
- Patients who had a robotic surgery may experience similar or fewer complications after surgery compared to patients who had open surgery.

**RISKS OF ROBOTIC SURGERY**

Every surgery has risks, it is important to talk to your doctor about the risks and benefits for all types of surgery.

The most common risks associated with all types of radical prostatectomy surgeries include:

- Bleeding
- Leaking of Urine
- Urinary Tract Infections
- Erectile Dysfunction
- Rectal or Bowel Injury
- Narrowing of the Urethra
Where is the surgeon operating the robot from during my surgery?

The surgeon is with the patient in the operating room. A console allows the surgeon to see and attend to the patient as needed and also allows them to control of the robotic instruments. The robotic systems allow the surgeon to move tiny instruments similar to a human hand but with a greater range of motion, and precision. The system also allows for magnified views much strong than the human eye.

What is the difference between laparoscopic and robotic surgery?

Unlike laparoscopic surgery, da Vinci Surgical System instruments used in robotic prostatectomy can turn in all directions with 90 degrees of articulation and 7 degrees of freedom. During robotic prostate surgery, the da Vinci robot provides the surgeon with improved visualization, dexterity, and precision compared with open or laparoscopic surgery, while enabling operation through 1-2 cm incisions. This allows the surgeon to perform fine computer-controlled movements and a more precise and minimally invasive robotic prostatectomy. During this prostate cancer treatment, his patients’ delicate prostate nerves that control bladder and sexual function are spared. Robotic prostatectomy achieves the same or better results than a surgeon’s own hands in open or laparoscopic surgery.

Is robotic surgery more expensive?

Insurance coverage varies widely so it is important to check with your insurance company for individual coverage details. For most patients the out of pocket expense for robotic surgery is not higher than other types of surgery.

RESOURCES

https://www.davincisurgery.com

https://www.roboticoncology.com/robotic-prostate-surgery/

https://www.mayoclinic.org/tests-procedures/prostatectomy/about/pac-20385198

Thank you to Intuitive, maker of the da Vinci surgical system, for the support of this educational piece.