

Radical Prostatectomy for Prostate Cancer-Open vs Robotic-which is better?

There are various treatments for prostate cancer available today (surgical removal, freezing, radiation including seeds and ultrasound) , yet patients can be confused about the best treatment for them individually. A couple of reasons for this are that, in general, there is no clearly superior treatment regarding cancer control (overall they all fail at about the same rate) and good comparison studies are lacking. Surgical removal of the entire prostate, also known as Radical Prostatectomy (RP) is the most invasive of several treatments for localized prostate cancer available today, and does have some advantages over other treatments. While most are being done 'open' there is growing interest in robotic RP . To clarify the differences between these 2 similar treatments, this brief summary provides proven objective information based mainly upon a current 'evidence based' peer reviewed comparison article*.

Robotic RP is appealing to patients as it represents cutting age technology, and because, although it does involve multiple incisions, is less invasive than open RP. But in most respects, the two procedures are very similar. Both involve incisions, a general anesthetic, a brief hospitalization and a urinary catheter for 7-10 days. RP has excellent success controlling early prostate cancer , and although robotic results have only been available about 4 years and the cancer control rates are considered preliminary, it is estimated there is generally a long term PSA recurrence rate of about 20% with either method of RP. Also the main long term side effects of RP , **impotency** and **urinary leakage** , are essentially **the same** for open or robotic. Robotic RP does offer some documented advantages, with generally a quicker time to complete recovery (4 vs 6wks), less time in the hospital (1.5 days vs 3) less postoperative pain (for the 1st 24 hours), and less blood loss (9% transfusion rate vs 15%). Although unproven, there may be a lower incidence of urethral stricture.

	INCISION?	ANESTHETIC?	HOSPITAL?	CATHETER?	IMPOTENCE?	LEAKAGE?
OPEN	One 7"	Yes	3 days	7-10 days	Often (similar)	Usually minor
ROBOTIC	Five 1-3"	Yes	1.5 days	7-10 days	Often (similar)	Usually minor

Some disadvantages of robotic RP need discussion. There are some large studies that demonstrate a poorer cancer control for higher grade/stage tumors, perhaps because of tactile (touch) loss with robotic or more difficulty with wider lymph node removal. Because robotic normally involves piercing the abdominal cavity with multiple instruments (transperitoneal) there can be major injuries to the vessels, ureter and intestines, which may require reoperation to repair. These injuries are essentially nonexistent with open RP, because the single incision does not pierce the abdominal cavity (extraperitoneal). Also, it generally takes a longer time in the operating room (2-3 hours vs 1.5) and the cost to the health care system is greater for robotic, making it more difficult to have the procedure done locally.

In summary, the optimal RP approach is unclear and depends upon the patients individual situation and his surgeons expertise and perspective. What is evident is that all treatments (including 'no incision' treatments) should be considered and discussed before embarking on treatment.

*Open vs Robotic Prostatectomy-an Evidence Based Analysis. 2007 Web MD Penson et al