

Robotic-assisted radical prostatectomy

Robotic-Assisted Radical Prostatectomy Video

Who is suitable for robotic-assisted radical prostatectomy?

Robotic-assisted radical prostatectomy is a curative surgical option for men with prostate cancer and a life expectancy of more than 8-10 years. It is a surgical approach that may be considered for patients who:

- Have cancer that is confined to the prostate
- The cancer is considered clinically significant and likely to cause morbidity and/or mortality in their lifetime
- Are otherwise in generally good health
- Will be more comfortable with the knowledge that the cancerous prostate has been physically removed from their body (compared to other treatments)

What are the advantages of robotic-assisted radical prostatectomy?

Robotic-assisted radical prostatectomy offers both surgeons and patients various benefits when compared to traditional open surgery.

Potential benefits of [robotic surgery](#) include:

- Less blood loss
- Smaller incisions
- A shorter hospital stay
- Faster recovery time
- High definition 3D vision inside the body
- Small instruments that allow a greater range of movements than the

human hand

- Improved dexterity and vision that allows for very precise movements and enhanced control

How is a robotic-assisted radical prostatectomy performed?

A robotic-assisted prostatectomy involves a number of steps:

- The patient is placed under general anaesthetic for the duration of the procedure, which usually lasts between 2-4 hours
- Several small incisions are made in the abdomen, through which the surgeon inserts the surgical tools and camera
- The abdomen is filled with carbon dioxide gas, which creates space and allows the surgeon to view the organs clearly and access them accurately
- The surgeon controls the robotic tools to remove the affected prostate and the seminal vesicles
- In some cases of high-risk cancer, some of the surrounding lymph tissue is also removed to provide information on whether or not the cancer has spread outside the prostate
- The urethra is then meticulously reconstructed to the bladder (anastomosis)
- The carbon dioxide is released and surgical instruments are removed
- Incisions are closed with a technique that minimizes the risk of hernia or scarring

What to expect after a robotic-assisted prostatectomy?

- Patients generally remain in hospital for 2-3 nights following the procedure
- There will be some mild pain or discomfort which can be managed with medication
- You will be encouraged to sit out of bed and walk around, as well as perform deep-breathing exercises to minimize the chance of pneumonia or blood clots in the legs or lungs (DVT/PE)
- A urinary catheter needs to remain in place for 10-14 days following

- surgery to allow healing of the anastomosis
- Some minor leakage of urine or blood-stained discharge around the catheter is common
- Uncommon complications include:
 - Damage to major blood vessels or other organs during surgery
 - Incisional hernia (usually where there are problems with wound healing)
- If you have any concerns following discharge from hospital, within hours you can contact the rooms or the ward to speak to the nurse in charge
- After hours, you may contact the nurse in charge of the ward or alternatively for major concerns attend your closest emergency department and they should contact your surgeon directly

You must insist that nobody removes or adjusts your catheter without prior discussion with your surgeon

Procedure outcomes

- In men with no evidence of cancer spread outside the prostate, radical prostatectomy offers a curative long term prognosis
- Regular follow up appointments and PSA testing are important following a robotic-assisted prostatectomy
- Urinary incontinence may occur following surgery, but this generally improves over time with the assistance of pelvic floor muscle training
- You will see a pelvic floor physiotherapist to educate you on these exercises which need to be commenced following removal of the catheter
- There is a risk of temporary or long term erectile dysfunction. This may occur because the nerves for erection run alongside the prostate
- There are numerous definitive management options for patients whose erectile function does not fully recover

Written by [Dr. Shekib Shahbaz](#) and [Dr. Tony de Sousa](#)

prostatectomy: a step-by-step guide, Journal of Endourology, 32(1), [<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC6071518/>], accessed 22/02/21.