

# **Radical prostatectomy**

Radical prostatectomy is surgery that may be able to cure prostate cancer if it is found early enough. Most men can go back to their normal lives within a few months of surgery.

## What is a prostate?

- The prostate is a gland about the size and shape of a walnut (in younger men) that lies between the bladder and the penis.
- The urethra is a long narrow tube that runs through the centre of the prostate to a muscle called the sphincter. See diagram: Side view of male lower urinary anatomy
- The sphincter controls the flow of your urine.
- Both urine and semen leave the body through the urethra.
- The prostate helps makes semen that mixes with sperm and flows out (is ejaculated) when you have an orgasm.
- The nerves (erectile nerves) on either side of the prostate send signals to cause your erections.
- It is possible for cancer to start in your prostate, but spread from there to other parts of your body.
- You may need more tests to see how far your cancer may have spread.



#### PSA (prostate-specific antigen)

- Blood test
- Looks for signs of prostate cancer

#### **Biopsy**

Takes a sample of your tissue or your cells to analyze

Confirms prostate cancer with a "score" (called tumour grade or Gleason score)

Check how the cancer might grow or change in future

#### Digital Rectal Exam (DRE)

Checks for cancer or other problems

Your doctor will put a gloved finger coated with a lubricant into your rectum

## What is a Radical Prostatectomy?

- With a radical prostatectomy, surgery will remove your prostate if:
  - Your prostate cancer has not yet spread
  - You are in good health
  - You are likely to live at least more ten years.

#### What are my treatment options?

- Observation: You visit your doctor regularly but you are not treated unless your cancer has grown (also called active surveillance).
- Radical Prostatectomy: Your prostate is removed.
- Radiation therapy which includes:
  - High doses of radiation sent right into your prostate to kill cancer cells and shrink tumors.

 Tiny radioactive pellets put inside your prostate (called brachytherapy) to destroy cancer cells with radiation.

### What happens during surgery?

- Surgery usually takes about two or three hours.
- Your doctor may choose to:
  - make a cut (incision) in your lower belly below the navel OR
  - make several small "keyhole" cuts (called laparoscopic surgery) instead of one long cut
  - a laparoscope is a thin, tube-like tool with a light and a lens.
- Laparoscopic surgery can
  - reduce your blood loss, pain, and discomfort because of the smaller cuts
  - leaves smaller scars than large incisions
- Your doctor may decide to remove lymph nodes in your pelvis during surgery and send samples for testing.
- During radical prostatectomy:
  - Your prostate is carefully removed from other parts of your body, such as the bladder and urethra.
  - As much of your sphincter muscle is kept as possible See diagram: Side view of male lower urinary anatomy.
  - Your erectile nerves will be saved if possible see section What is a prostate?.
- A catheter (a hollow tube) is passed through your penis into the bladder.
- A small balloon will hold the catheter which is sewn to the bladder to keep it in place. See diagram: Side view of catheter in bladder after prostate is removed.
- Your doctor will decide the best time to remove the catheter.



#### What will I need to know before my surgery?

- You may need some lab tests before your surgery.
- You and your doctor should talk about your medications (such as blood thinners, aspirin, arthritis medications or even "natural herbs.")
- Some medications can increase your risk for bleeding.
- You may need to stop taking some of these medications before surgery

### What happens on the day of the surgery?

- You will go to hospital in the morning and prepare for your surgery.
- You should not eat or drink anything for several hours before the surgery.
- You may have to wear tight stockings (support stockings) or take medications to prevent blood clots in your legs.
- In the operating room, the anesthesiologist (the doctor who will keep you comfortable during surgery) will attach you to machines to check on your body temperature, oxygen levels, and blood pressure.
- A general anesthetic will let you sleep through the surgery.

## What will happen right after surgery?

- After the surgery, you recover for about 1-2 hours until you are stable and can be moved to a hospital room.
- At first you may have a tube in your nose for oxygen, an intravenous (IV) line in your arm for fluids, the catheter, and a drain in your lower belly to remove fluids from the incision.
- All of these except the catheter will be removed within a few days.
- It is important to get back to activity as soon as possible (such as daily walks).
- In hospital, your care team will have you:
  - Sit up or stand on the day of surgery.
  - Walk the day after your surgery.
  - Doing breathing and leg exercises.

## Will I be in pain after the surgery?

- To help with any pain, your doctor will give you one of the following:
  - An IV so that you can give yourself a pain killer at the touch of a button.
  - "Shots" of a painkiller.
  - A tablet or suppository (medicine to put into your rectum).

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# When will I go home?

- You will go home once you are drinking, eating, and able to take care of yourself.
- This is usually one to three days after surgery.

## What will I need to do when I get home from the hospital?

- You will learn how to look after your incision and your catheter until it is removed.
- Since major surgery is hard on you physically and mentally:
  - You may need to rest more than usual
  - It may take several months to get your full energy level back.
- A few weeks after surgery, your doctor wil update you about your tumour.

# What are the risks and complications of radical prostatectomy?

#### Short-term risks

Bleeding that may require a blood transfusion.

An infection that may need antibiotics.

Heart or lung problems.

Blood clots in your legs that can be life-threatening if they move into your lungs.

### Long-term risks

Being unable to have natural erections. This can improve over time. Treatments are available if necessary.

You may still feel an orgasm, but you will not produce semen (dry orgasm).

You will be infertile (unable to get your partner pregnant).

#### Many men leak urine

Exercises will improve this leaking, but some men may still need underwear to absorb the urine.

In rare cases, more surgery may be needed.

- It is possible that your cancer may spread but may be too small to notice.
- Your cancer may return.
- Your doctor will suggest a regular follow-up schedule to keep an eye on your cancer.

#### **Bottom Line**

Within a few months after having a radical prostatectomy, most men are back to their normal lives.

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