

Did You Know?

1 IN 6 MEN in Alberta will be diagnosed with prostate cancer **IN THEIR LIFETIME.**

Approximately **8 MEN DIE** of prostate cancer **EVERY WEEK IN ALBERTA.**

About **2,500 MEN WILL BE DIAGNOSED** with prostate cancer annually in Alberta.

Increasing education and awareness initiatives on the early detection and treatment of prostate cancer, can substantially reduce these statistics.

Calgary's Prostate Cancer Centre operates solely on the generosity of community events, corporate sponsors, volunteers, and you.



Hours of Operation

Monday to Friday
7:00 AM - 3:00 PM

MEDICAL

Prostate Cancer Centre

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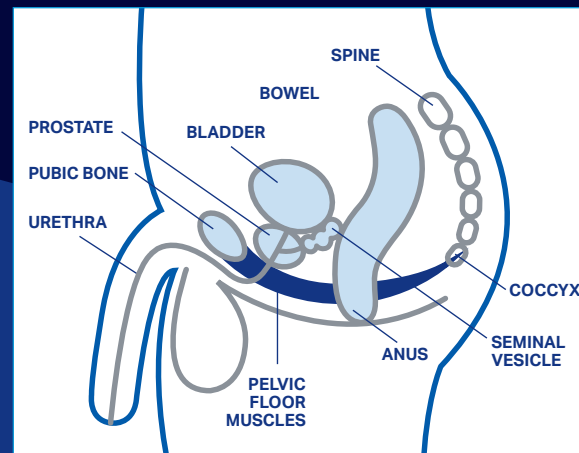
Prostate Cancer Treatment Options



Prostate Function and Effects of Treatment

The prostate is a small walnut shaped gland that weighs approximately 30 grams. The prostate surrounds the urethra, the tube that carries urine from the bladder to the penis. If the prostate grows too large, the flow of urine can be slowed or stopped. If the prostate grows too large, the flow of urine can be slowed or stopped.

Side effects vary and depend on the type of treatment. Some common side effects include: erectile dysfunction (impotence) and urine leaking (incontinence). These side effects can be temporary or permanent and may or may not respond to treatment.



Prostate Cancer Treatment Options

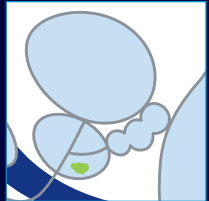
You are not alone in deciding which treatment option is right for you. This brochure provides a simple overview of different treatment options. Your doctor and healthcare providers can provide more information. Use this guide as you talk to your family, friends, and loved ones about your diagnosis and treatment options.

Calgary Prostate Cancer Centre also provides patients with bi-weekly education sessions led by healthcare professionals that provide in-depth information about both treatment options and potential side effects.

Stages of Prostate Cancer

STAGE ONE

The tumour is very small and cannot be felt on the Digital Rectal Exam (DRE).



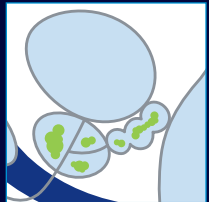
STAGE TWO

Tumour growth in one or both lobes of the prostate can be felt on examination.



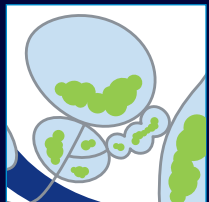
STAGE THREE

The tumour spreads locally outside of the prostate or involves seminal vesicles.



STAGE FOUR

Tumour has spread into surrounding tissue (bladder and rectum).



	Active Surveillance	Radical Prostatectomy: Open or Robotic	External Beam Radiation Therapy (EBRT)	Brachytherapy	Cryoablation Surgery	Androgen Deprivation Therapy (ADT)
WHAT IS IT?	<p>Active Surveillance occurs when it is uncommon for the cancer to cause death.</p> <p>As many prostate cancers are slow growing, this approach is best suited for patients with low grade and low volume cancer.</p>	<p>Radical Postatectomy is an operation to remove the entire prostate with the aim of curing the cancer.</p> <p>This procedure is suitable for patients who are fit for surgery and whose disease is believed to be confined within the prostate gland.</p>	<p>External Beam Radiation Therapy (EBRT) is suitable for patients whose disease is confined within the prostate gland.</p> <p>This treatment option is mostly recommended for people with high risk disease or other health problems.</p> <p>Radiation therapy may also be used in conjunction with low and high dose brachytherapy and hormonal treatment.</p>	<p>Brachytherapy is two types of focused radiation directly inside the prostate.</p> <p>1. Permanent Seeds (Low Dose Rate): The low dose rate treatment is best for cancer that is confined to the prostate, and is low or intermediate grade with a PSA less than 15.</p> <p>2. Temporary Insertion (High Dose Rate): The high dose rate treatment is best for cancer that is intermediate or high grade with a PSA less than 50.</p>	<p>Cryoablation Surgery is a safe option for men with other health concerns.</p> <p>Extremely low temperatures are used to kill cancer cells (similar to frostbite). It's used when the disease is confined to the prostate, but can also be used if the cancer has penetrated through the prostate's outer lining. This is done for all grades of cancers with a PSA less than 20.</p>	<p>Androgen Deprivation Therapy (ADT) is targeted at reducing or stopping the production of testosterone.</p> <p>It is used to treat localized, locally advanced, or advanced prostate cancer.</p>
HOW IS IT DONE?	<p>During Active Surveillance the patient is examined at regular intervals to assess whether the cancer is growing.</p> <p>The frequency of these tests is dependent on the patient's age and previous results. Repeat DRE (Digital Rectal Exam) and PSA (Prostate Specific Antigen) blood tests are the main tools used.</p>	<p>Radical Postatectomy surgery takes one to three hours, regardless of the approach used, and is performed under general anesthesia.</p> <p>Open surgery: This is done through a 10-15cm incision right above the pubic bone.</p> <p>Robotic surgery: This is done via six small incisions to the abdomen.</p> <p>Both remove the prostate, seminal vesicles, and surrounding lymph nodes. These tissues can then be further analyzed to determine the extent of disease.</p>	<p>External Beam Radiation Therapy (EBRT) is an outpatient treatment.</p> <p>High-energy x-rays are produced by a machine called a linear accelerator. Beams of x-rays are focused on the prostate from a number of different angles on a daily basis from Monday to Friday for four to eight weeks.</p> <p>As each prostate is shaped differently, an individual treatment plan is devised to achieve desired therapeutic radiation intensity while protecting normal tissues in the surrounding area.</p>	<p>Brachytherapy treatment is usually completed in one session.</p> <p>The LDR are permanent radioactive seeds which are placed into the prostate gland. Radiation is then released slowly over several months. The treatment is completed in one session.</p> <p>HDR therapy is the temporary placement of hollow catheters (needles) inside the prostate. A very strong radiation source is then moved into each catheter to deliver radiation to the act on the precise location of the prostate immediately.</p>	<p>Cryoablation Surgery is a minor surgical procedure, done under spinal anesthetic.</p> <p>Small needles are placed in the prostate through the skin, between the scrotum and the anus. An ultrasound probe is placed in the rectum and is used to monitor positioning.</p> <p>The tip of these needles freezes to -170°C and forms an ice ball that surrounds the entire prostate.</p>	<p>Androgen Deprivation Therapy (ADT) reduces testosterone in one of two ways:</p> <p>1. Medical Therapy: Injections called LHRH agonists and/or tablets called anti-androgens, or orchiectomy (surgical removal of the testicles).</p> <p>2. Neo-adjuvant Therapy: Injections used in combination with radiation. would begin months before the radiation treatments.</p>
WHAT TO EXPECT:	<p>Throughout Active Surveillance your doctor will monitor your health status every few months.</p> <p>If your PSA begins to rise, the prostate feels abnormal, or the pathology from your biopsy result changes, the doctor will advise you of your treatment options.</p>	<p>Hospital stay is usually one to three days. Like any other surgery, there are risks carrying out the procedure.</p> <p>You will have an indwelling catheter in your penis for 10-14 days. This will allow the bladder to properly heal to the urethra.</p> <p>The most common complaints during this time include irritation or discomfort from the catheter, bladder spasms, tenderness in the perineum, and gas pain.</p>	<p>A CT scan is done to determine the exact size and shape of the prostate for treatment planning.</p> <p>You can expect to be placed in exactly the position (on your back or on your stomach) in which you will have your treatment.</p> <p>Sometimes three or four non-radioactive gold seeds may be placed in the prostate before simulation. These gold markers help guide the radiation beams to the prostate during treatment. Each daily treatment takes 15-20 minutes.</p>	<p>An ultrasound is used to capture prostate images which are then converted into a 3D Model by a computer.</p> <p>This model is used to determine the placement of seeds required to treat the cancer. The physician places radioactive seeds into the prostate using a computer-guided needle.</p> <p>The whole procedure takes one to two hours, with discharge two to three hours after the procedure is completed. Your catheter will be removed the following day.</p>	<p>Cryoablation Surgery is done using ultrasound to "see" the freezing process.</p> <p>A suprapubic catheter is placed in the bladder and the tube exits through the abdomen to drain urine postoperatively. It is a relatively painless procedure with an overnight stay in hospital.</p>	<p>With hormone therapy you should expect an injection every one to four months for as long as your doctor feels the treatment is needed.</p> <p>Sometimes tablets are continued for this time as well.</p>
POSSIBLE SIDE EFFECTS:	<p>As time progresses, there is a risk of difficulty passing urine. Physical side effects may be replaced with or joined by mental side effects such as anxiety or depression.</p> <p>It is important that you vocalize any experience of these with your family and/or your health care professional.</p>	<p>Some men will have some temporary urinary incontinence, after the catheter is removed.</p> <p>This usually settles within a few months. In the long term, 15-25% of men experience mild degrees of incontinence called stress incontinence. Difficulty to get or maintain an erection is another risk of surgery. The results depend on the age of the patient and the extent of the cancer.</p> <p>Talk to your urologist about these side effects.</p>	<p>Short-term side effects usually begin two to three weeks into treatment. Discomfort, pressure, or increased frequency associated with urination and/or bowel movements may be experienced.</p> <p>Patients with pre-existing bladder problems, hemorrhoids, hypertension and/or diabetes may have worse side effects.</p> <p>Long-term effects include reduction in erectile function, occasional rectal and/or bladder bleeding, urgency or continence issues.</p>	<p>These urinary symptoms are worse in the first month and improve over the next three months, but may persist for longer.</p> <p>A small amount of blood is usually present in the urine for the first couple of days with bruising around the scrotum. Increased and decreased urinary stream are common. One percent of men may experience inability to pass urine, in which case a catheter is used.</p> <p>Some patients may experience erectile dysfunction over the next three years that requires medication.</p>	<p>It takes about two to three weeks for the prostate, penis, and scrotal swelling to settle and to pass urine again. Men may experience minimal discomfort with sitting.</p> <p>Post-operative urinary incontinence is usually minimal, occurring in less than ten percent of patients. Most men experience erectile dysfunction after cryosurgery.</p> <p>Urethral sloughing occurs two to three percent of the time, in which case a Trans Urethral Resection of the Prostate (TURP) procedure may be required.</p>	<p>The most common side effect is hot flashes - feelings of warmth throughout the body that last a few seconds. Other side effects may include a decline in sexual drive, difficulty obtaining an erection, some tiredness, and, in rare cases, swelling of the breast tissue.</p> <p>Longer term use may also lead to loss of body hair, softening of the skin, and loss of bone and body mass.</p>