

Prostate Cancer: Making informed choices

Information about
your diagnosis
and treatment
options





INTRODUCTION

Learning that you have prostate cancer can be a frightening experience, but it's important to acknowledge that much of this feeling comes from a fear of the unknown. That's why it's so important to learn more about prostate cancer, your diagnosis and the treatments that are available.

This booklet contains information about the prostate gland, how prostate cancer is diagnosed and treatments used to manage it. Many additional sources of information are available, and your doctor or nurse may be able to recommend some of these, as well as answer your questions.

Once you have a better understanding of your situation and some of the choices that lie ahead, you'll be able to take an active role in your treatment.

MY PROFILE

Name: _____

Address: _____

Telephone: _____

Email: _____

Hospital ID number: _____

**Health insurance
policy/Health Card
number:** _____

MY MEDICAL HISTORY

Your physician can help you complete the following information for future reference:

**Date of prostate
cancer diagnosis:** _____

Name of diagnosis doctor: _____

Telephone number: _____

**Clinical stage of prostate
cancer at diagnosis:** _____

PSA level: _____

Gleason score: _____

Notes: _____



WHAT IS CANCER?

Cancer is a disease characterized by the uncontrolled growth and potential spread of abnormal cells. The human body is made up of millions of cells. Normally, cells reproduce themselves by dividing so that cell growth occurs in an organized and controlled fashion. When cells grow abnormally and become a mass, it is called a tumour. Some tumours are benign (non-cancerous); others are malignant (cancerous).

The growth of a benign tumour may interfere with body functions, such as urinating when it occurs in the prostate (benign prostatic hyperplasia), but these benign growths are seldom life-threatening. On the other hand, a malignant tumour invades and destroys surrounding tissues. By a process called metastasizing, malignant cells may break away from a cancerous tumour and spread through the blood and lymph to other parts of the body, where they form new cancerous tumours. It's important to find malignant tumours as early as possible.

WHERE IS THE PROSTATE AND WHAT DOES IT DO?

The prostate is about the same size and shape as a walnut, and it is divided into two lobes similar to the two halves of a walnut. It is located below the bladder and in front of the rectum. It surrounds part of the urethra in this area and urine passes through it. The prostate produces the milky fluid that transports the sperm formed in the testicles to the urethra within the penis. This is the only function of the prostate gland.



WHAT ARE THE SYMPTOMS OF PROSTATE CANCER?

Most men with prostate cancer have no symptoms in its early stages. Those who also have benign prostatic hyperplasia or advanced prostate cancer may complain of some of the following:

- Frequent urination (especially at night)
- Weak urinary stream
- Inability to urinate
- Interruption of urinary stream (stopping and starting)
- Pain or burning on urination
- Blood in the urine or semen
- Painful ejaculation
- Pain in lower back or pelvis

WHAT CAUSES PROSTATE CANCER?

There is no single cause, but some factors appear to increase the risk of developing prostate cancer:

- Advancing age
- A family history of prostate cancer
- African ancestry

Many men who have none of these risk factors still develop prostate cancer. Scientists are also studying possible additional risk factors, including the effects of diets that are high in fat, red or processed meats, genetic factors and working with hazardous chemicals.

WHAT ROLE DOES TESTOSTERONE PLAY?

In its early stages, prostate cancer is usually a hormone-dependent cancer. This means that it requires male hormones (called androgens) in order to grow. Testosterone, which comes mainly from the testicles, is the most important androgen in the body. Depending on the stage of prostate cancer, treatment may be directed toward stopping androgen production or blocking androgen activity, in order to destroy the cancer cells.

WHY IS EARLY DETECTION SO IMPORTANT FOR PROSTATE CANCER TREATMENT?

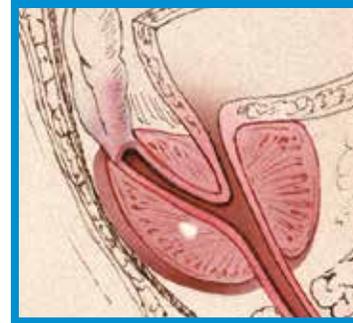
Early detection of prostate cancer improves the chances of successful treatment. In the later stages, treatment can result in effective control of prostate cancer. Keep in mind that although prostate cancer is the most common form of cancer among older men, many men die with prostate cancer rather than because of it. That's why it's important to have regular check-ups and to see your doctor if you have any of the symptoms outlined on page 6.



WHAT DOES MY DIAGNOSIS MEAN?

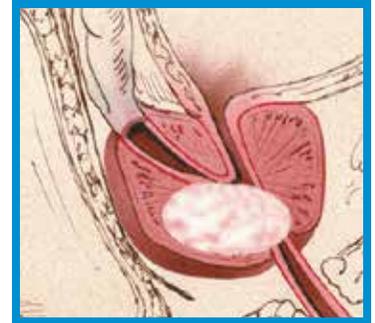
It is important to understand your diagnosis so that you can make informed choices, in consultation with your doctor, about the treatment plan that is most suitable for you. In addition to your age and health status, other factors that may be considered in deciding on treatment options for your situation include: clinical stage, the tumour grade or Gleason score and PSA (prostate-specific antigen) level. Clinical stage refers to the size of the tumour felt on digital rectal examination (DRE) and the extent to which it has spread in the prostate and beyond. (The letter T in each stage stands for tumour.)

STAGE T1



Doctor is unable to feel the tumour with a digital rectal exam (DRE)

STAGE T2



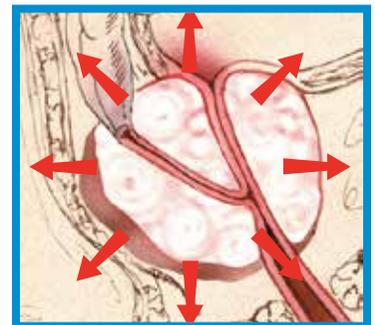
Tumour can be felt in but involves half a lobe or less (T2a), involves more than half a lobe (but not both; T2b) or both lobes (T2c) of the prostate

STAGE T3



Tumour has spread outside the prostate and involves the neck of the bladder (T3a) or involves seminal vesicles (T3b)

STAGE T4



Tumour has spread into surrounding tissue such as the bladder or rectum

PROSTATE CANCER TREATMENTS

This guide is designed to give an overview of treatments for prostate cancer. You'll need to discuss your own specific situation with your doctor to decide which treatments are suitable for you.

ACTIVE SURVEILLANCE

An option if the cancer is at a very early stage and is slow growing.

SURGERY

Prostatectomy is generally suitable for otherwise healthy patients whose disease is confined within the prostate gland.

RADIOTHERAPY

EXTERNAL BEAM RADIATION

A small amount of radiation is given outside the body to the prostate daily, 5 days a week, for around 3 to 8 weeks.

BRACHYTHERAPY

There are two types of brachytherapy: Low-dose rate (LDR) brachytherapy that requires implantation of permanent radioactive seeds into the prostate and high-dose rate (HDR) brachytherapy that consists of temporarily inserting radiation directly into the prostate using needles wired to a radiation source.

HORMONE THERAPY

Used when prostate cancer has spread beyond the prostate, or if surgery or radiation treatment is inappropriate. This may include recurrent prostate cancer after radiation or surgery. Hormone therapy is also sometimes used with radiotherapy to improve cancer control.

CHEMOTHERAPY

Powerful drugs used in combination with a steroid to treat advanced prostate cancer that has spread to other sites in the body.

SYMPTOMATIC TREATMENT OF BONE METASTASES

Targeted beam radiation or radioactive medications used to treat the pain associated with advanced prostate cancer that has spread to the bones.



UNDERSTANDING YOUR OPTIONS

On the following pages, you'll find more detailed information about the various treatment options for prostate cancer.

ACTIVE SURVEILLANCE

What it is

Active surveillance implies close observation and monitoring of your prostate cancer. Depending upon your age and health, this may be an option if the cancer is small, and low-grade and poses little threat.

What's done

The cancer is monitored to see if it's growing or not, using repeated DRE and PSA tests. How often these tests are done depends upon your age and the other characteristics of your prostate cancer. Your doctor or nurse may also inform you about certain protective measures you may take.

What to expect

Based upon your PSA results, DRE findings and degree of symptoms, your doctor will reassess the status of your health every few months. If there is evidence your prostate cancer is progressing, for example your PSA begins to rise, your doctor will advise you of possible treatment interventions.

Side effects

There are no side effects to active surveillance.

RADICAL PROSTATECTOMY

What it is

Radical prostatectomy is a surgical procedure that removes the prostate and seminal vesicles with the aim of curing the cancer. Surgery is suitable for otherwise healthy patients whose disease is confined within the prostate gland.

Can I survive without my prostate gland?

Yes. Other than the prostate's specialized function described earlier, it has no other effect on your body.

What's done

Surgery is usually performed through an incision in the lower abdomen; in some centres, it may be done laparoscopically through several small incisions in the lower abdomen. The operation takes from 2 to 4 hours and is performed under general anesthesia.

What to expect

Expect a hospital stay of 1–2 days. You'll leave the hospital with a catheter connected to a bag on your leg so that the urine can drain out of the bladder. This is removed in 1–3 weeks.

Side effects

Many men will have some temporary urinary incontinence (leaking of urine) after the catheter is removed; this control usually returns over a period of many months. Many men will have a decrease in or loss of ability to get or maintain an erection; this is usually temporary and returns to variable degrees after many months. If either of these side effects persist, there are often ways of improving them.

RADIOTHERAPY

a) External Beam Radiation Therapy

What it is

It is the use of radiation to eradicate cancer cells with the aim of curing the cancer. External beam radiation therapy is suitable for patients whose disease is confined within the prostate gland or has penetrated through the capsule or outer lining of the prostate.

What's done

Beams of high-dose radiation are delivered to the prostate from a number of different angles, to focus on the prostate while minimizing the damage to the surrounding normal structures such as the bladder and rectum. Treatment is usually given 5 days a week for around 3 to 8 weeks. As each person (and his prostate) is shaped differently, an individual treatment plan is devised for each patient to determine the number of radiation beams to be used, which angles are best and how to best protect the normal cells in the surrounding area.

What to expect

The first procedure is a special CT scan or MRI to allow the doctor to see exactly the size and shape of the prostate. You can expect to be placed in exactly the position (on your back or on your stomach) in which you will have your treatment.

During treatment sessions, a machine will send painless high-energy beams into your body. You will be fully awake for the sessions, which take between 15 to 30 minutes. You will also have regular meetings with your radiation oncologist to monitor side effects and review your progress.

Side effects

During (and shortly after) treatment, it is not uncommon to have:

- Fatigue
- Burning and soreness around the anus
- Some discomfort upon urination
- Some urgency of bowels and urination

Long-term bowel or bladder damage is seen infrequently, but many men having radiation therapy may lose the ability to have natural erections.

b) Brachytherapy

What it is

It is the use of radiation placed directly into the prostate to eradicate cancer cells with the aim of curing the cancer. Brachytherapy is done either by inserting permanent (low dose rate, or LDR) or temporary (high dose rate, or HDR) radiation directly into the prostate. Brachytherapy, on its own, is usually only used if the cancer is relatively slow growing or low grade.

What's done

In LDR brachytherapy, between 40 and 100 small radioactive seeds, each about the size of a grain of rice, are inserted into the prostate using a needle. The procedure is performed under general or spinal anesthesia and may require an overnight stay in the hospital. Each seed delivers low doses of radiation to the prostate over several weeks or months and after treatment is finished, the seeds are left in the prostate.

In HDR brachytherapy, about 12 to 18 needles that contain catheters are inserted directly into the prostate under general anesthesia. The needles are then removed but the catheters stay in place to deliver a high dose of radiation to the prostate usually for 5 to 20 minutes. The radiation is removed after each treatment but the catheters are only removed after the final treatment.

What to expect

In both LDR and HDR brachytherapy, a catheter may have to be temporarily used for urine drainage.

HDR brachytherapy is often combined with external beam radiation to treat patients with high risk prostate cancer.

Side effects

The side effects associated with brachytherapy are similar to those of external beam radiation with possible bowel problems such as rectal pain, burning and/or diarrhea, urinary problems such as urinary incontinence, although rare, and erection problems.

HORMONAL THERAPY

What it is

Hormonal therapy is done to remove, suppress, or block the male hormone (testosterone, an androgen) to help control the disease. "Hormone therapy" is another term for androgen deprivation therapy (ADT), and it is used most often for men with prostate cancer that has spread beyond the prostate, or where surgery or radiation treatment may be inappropriate. This may include recurrent prostate cancer after radiation or surgery.

What's done

Medication can be given by injection periodically to suppress the testicles from producing testosterone, or can be taken every day by mouth to block the effects of testosterone. Oral medication is sometimes used in addition to injections, particularly at the start of treatment. Alternatively, surgical removal of the testicles can be performed.

What to expect

Injections: An injection into the abdominal fat or buttock every few months depending on the particular drug used. LHRH agonists (injections) are generally given for up to 12 months at a time.

Oral treatment: Daily pill(s) alone or in combination with injections. Treatment may go on indefinitely, or be limited to a period of time.

Surgical removal of the testicles: The operation takes from 2 to 4 hours and is performed under general anesthesia. Speed of recovery and side effects will depend mainly on the type of surgery and on the patient's overall health.

Side effects

Hormone therapy: Hot flashes, impotence, loss of desire for sex, mild anemia, which may contribute to a loss of energy or fatigue and a decrease in muscle strength. Your bones may become weaker.

Antiandrogen therapy: Nausea, diarrhea, breast tenderness and liver dysfunction.

Surgical removal of the testicles: Nausea, vomiting, pain and erectile dysfunction.

CHEMOTHERAPY

What it is

Some men with advanced prostate cancer are also found to have cancer at other body sites and these men may be candidates for chemotherapy.

What's done

Chemotherapy is given by injection with an infusion that takes one hour every three weeks, or as oral tablets.

What to expect

An infusion that can be given at a clinic or in some cases at home.

Side effects

The most common side effects with chemotherapy include anemia, total or partial hair loss (alopecia), fatigue, infections, diarrhea, nausea and vomiting, decreases in white blood cells and platelets and infertility.

SYMPTOMATIC TREATMENT OF BONE METASTASES

What it is

When advanced prostate cancer spreads to other body sites, a common place for these metastases to happen is in the bones. There are various treatments your doctor can use to help manage the pain and discomfort associated with these bone tumours.

What's done

- Spot (or palliative) radiation is just like external beam radiation and is used to target the painful sites in your bones
- Radioactive medications are injected into your vein, where they absorb in the areas of your bone where the tumours are growing

What to expect

- Spot radiation is given over a course of 1 to 5 days for a few minutes at a time, and many men start to feel pain relief within 1 to 2 weeks
- Radioactive medications are injected at a hospital, usually in just a few minutes. Pain relief usually begins within 1 to 2 weeks after treatment and lasts from 3 to 6 months. You'll need periodic blood tests to monitor for side effects, which are generally treatable

Side effects

Your side effects will depend on the area of bone being treated and the dose that you're given. These could include skin reactions, tumour flares (where symptoms get worse before they get better), nausea, vomiting, cramps, increased need to urinate and bone marrow suppression.

With radioactive medications, you may experience tumour flares or bone marrow suppression leading to reduced blood cell counts (white blood cells and platelets), which increases your chance for infection for at least 4–6 weeks after an injection.

SUMMARY

Prostate cancer is a complex disease. There are many personal and cancer-related factors that might influence the best choice of treatment for an individual patient. It is important that you learn as much as possible about your prostate cancer and your options, including all potential side effects. This will allow you to have an informed discussion with your physician and make a treatment plan that works best for you.

FOR MORE INFORMATION

The following Internet web sites can help you learn more about prostate cancer and treatment:

[Canadian Cancer Society](http://www.cancer.ca)

www.cancer.ca

[Canadian Prostate Cancer Research Foundation](http://www.prostatecancer.ca)

www.prostatecancer.ca

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Printed in Canada
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LUD/3049A-16 – February 2016



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