

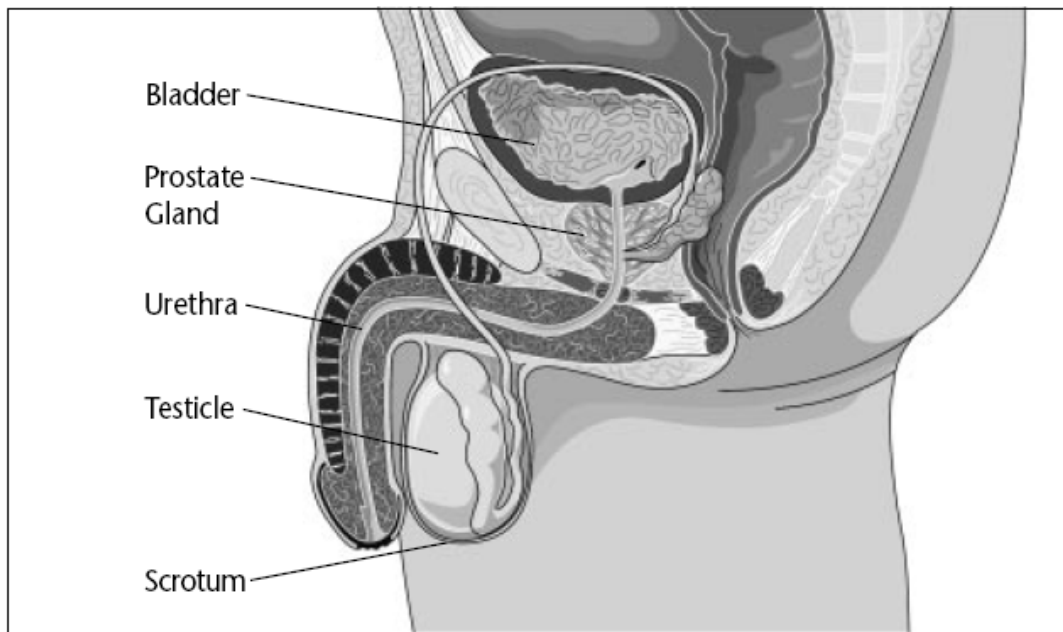


Hormone Therapy for Prostate Cancer

What is the prostate gland?

The prostate is one of the male sex glands. It makes seminal fluid that is a part of the semen that is released through the penis when a man ejaculates.

The prostate is about the size of a walnut. It lies just below the urinary bladder (the organ that collects and empties urine) and in front of the rectum (the lower part of the bowel). The prostate gland also surrounds part of the tube that carries urine from the bladder through the penis to the outside of the body. This tube is called the urethra.



What is cancer?

Cancer is not just one disease. There are many kinds of cancer. Cancer develops when cells in your body become abnormal, grow out of control and form a mass called a malignant tumour. These abnormal cells do not let your healthy cells and organs do their normal job. Cancers are named after the part of the body where they start.

What is prostate cancer?

Prostate cancer is a disease where cancer cells start to grow in the prostate gland. These cancer cells grow into a tumour and can spread to other parts of the body such as the bones and lymph nodes.

What causes prostate cancer?

The cause of prostate cancer is unknown. Prostate cancer is mainly a disease of older men. 80% of prostate cancers are diagnosed in men over the age of 65. It often takes many years for prostate cancer to form and grow. We know that prostate cancer cells need male hormones to be able to form and grow.

What are hormones?

Hormones are proteins made naturally in your body. Hormones travel throughout the body in the blood stream. Hormones control many of our body functions such as digestion, growth and replacement of worn out cells, sexual traits and reproduction. One example of a male hormone is testosterone.

What does testosterone do?

Testosterone helps teenage boys develop their adult sexual traits like body and facial hair, a deeper voice and sex drive. As an adult, testosterone keeps the prostate gland healthy. The testicles make most of the body's testosterone. However, to make testosterone, the testicles must first receive the "start" signal from special messenger hormones that come from the brain.

How does hormone therapy work for prostate cancer?

Prostate cancer cells need testosterone and other male hormones to grow. These hormones act like a fuel to feed the cancer cells and keep them active. Hormone therapy works by lowering the testosterone being made in your body. When the testosterone is taken away from the cancer cells, they will either die or slow down and stop growing.

Hormone therapy can be used by itself or with radiation therapy (x-ray therapy) or surgery (radical prostatectomy) to treat prostate cancer. What treatment is recommended for you, will depend on if the cancer has spread outside the prostate gland.

If the prostate cancer has spread outside of the prostate, cure of the cancer is not likely. Your doctors will recommend the best treatment to slow down and control the growth and spread of the cancer cells. Whether the doctor is working to cure or to control the prostate cancer, the amount of testosterone in your body will need to be lowered.

How can my testosterone levels be lowered?

The amount of testosterone you make can be lowered by:

1. Removing your testicles by surgery - orchiectomy.
2. Using medications to stop the testicles from making testosterone or blocking the action of testosterone - hormonal therapy.

Surgery to lower testosterone levels

The testicles are removed through a small incision in the scrotum during an orchiectomy. When the testicles are removed, the amount of testosterone in your body drops. The “fuel” needed by the cancer cells is taken away. Most patients can go home on the day of surgery. The low testosterone levels in your body will be permanent.

Hormonal therapy to lower testosterone levels

Two main types of medications are used for hormone therapy. You may need to take one or both types of these medications.

1. LHRH Agonists

This therapy uses medication to **stop** the testicles from making testosterone. Common examples of these drugs are leuprolide (Lupron®), goserelin (Zoladex®) and buserelin (Suprefact®). These medications are usually given to you every 1 to 4 months by an injection into skin or muscle.

2. Antiandrogens

This therapy uses medication to **block** the action of testosterone. Common examples of these drugs are bicalutamide (Casodex®), flutamide (Euflex®), nilutamide (Anandron®) and cyproterone acetate (Androcur®). These medications are usually pills taken by mouth every day.

When the doctor is hoping to cure or get rid of your prostate cancer completely, these hormone medications are used with either a surgery called radical prostatectomy (removal of your prostate gland) or with radiation therapy (x-ray treatment). You will need to take the hormone medications for several weeks or months before and after the surgery or radiation treatment. The hormone therapy may be continued for months to years after your treatment.

When men take hormone therapy to slow and control the growth of cancer cells, they are asked to make a decision between the orchiectomy (removal of the testicles) or the hormone medication.

Some men choose orchiectomy because they do not want to take an injection every 1 to 4 months for the rest of their life. It is important to also mention that this medication can be quite expensive if you do not have a private drug plan.

Some men choose hormone medications instead of surgery because they do not want to have an irreversible treatment like an orchiectomy. If you start with the hormone medications but then decide you want surgery, it can be done.

The doctor, nurse and pharmacist will explain your medications to you.

They will talk about:

- ◆ how these medications work.
- ◆ when to take the medication.
- ◆ how they need to be taken (by mouth or injection).
- ◆ how long you need to take them.
- ◆ how you may feel when taking these medications.

They will answer any of your questions.

How can I expect to feel on hormone therapy?

You can expect some side effects when testosterone is removed from a man's body either with medication or by taking out the testicles.

Common side effects can include feeling tired, hot flashes (sudden sweating and feeling warm), weight gain, loss of sexual desire and inability to have an erection.

Long term or later side effects can include loss of bone thickness known as osteoporosis.

Every man deals with these changes in his own way. How he deals with it can depend on how he views himself, what he values, age and what support he gets from family, friends and others.

When you have a diagnosis of cancer, it is **very normal** to feel a wide range of emotions. People tell us they often feel a mix of hope, anger, fear, feeling out of control and depression. It is important to share what you are feeling with your doctor or nurse. We are here to answer your questions and to talk about any problems you may be having.

How to take your hormone therapy medications

Your doctor has prescribed hormone therapy to treat your prostate cancer. This sheet will help you to take your medications exactly the way the doctor has ordered.

The medications you need to take will have a check mark (✓) in the box next to their names. The doctor or nurse will fill in the blanks and give you information about these medications.

Pills taken by mouth

bicalutamide (Casodex®) _____ mg once a day for _____ weeks.

flutamide (Euflex®) _____ mg 3 times a day for _____ weeks.

nilutamide (Anandron®) _____ mg once a day for _____ weeks.

cyproterone acetate (Androcur®) _____ mg twice a day for _____ weeks.

