# Treatments



## Overview

Once diagnosed, you will need to discuss treatment options with your healthcare team, options that depend on a range of factors. These include the grade and stage of cancer, your age, general health and preference for mode of treatment.

## Non-Treatment Options

Some cancers will not require treatment directly and you may be referred to one of the following non-treatment options:

1. **Active Surveillance**
   This is a way to monitor low-risk prostate cancer that may not be causing any symptoms. These slow growing cancers may never progress to cause any problems, or they may progress very slowly over years. Active Surveillance is a way to avoid or delay radical treatments that can cause significant side effects, and involves

regular PSA tests, digital rectal examinations, biopsies and imaging scans. If the disease appears to be changing – either through an increasing PSA, changes in symptoms, or more suspicious areas showing up on a scan – then a radical treatment that aims to cure the cancer will be offered. This normally involves surgery or radiation therapy.

2. **Watchful Waiting**
   This is a way of monitoring prostate cancer symptoms and side effects and treating them as they arise. Treatment is for the purpose of symptom relief and slowing the cancer growth, not to cure the cancer. Men may be offered Watchful Waiting if they are older and/or in poor health and the cancer is not likely to progress and cause a problem in their lifetime. It may also be offered if they have other health problems as well as prostate cancer. It involves fewer tests than Active Surveillance. Men may have regular PSA tests and if the level rises or they experience troublesome symptoms, they may also need imaging scans.

## Other Treatment Options

**Surgery**

This procedure is called a Radical Prostatectomy and involves removing the prostate gland and some of the surrounding tissue. The aim is to completely remove the cancer and it can successfully cure the cancer if it has not yet spread outside the prostate gland. A radical prostatectomy can be done in different ways:

- **Open radical prostatectomy:** A cut is made below the navel to the pubic bone, to get to the prostate gland;

- **Laparoscopic radical prostatectomy:** Also known as ‘keyhole surgery’. Several small cuts are made to allow a camera and instruments to be inserted. Recovery after the operation is usually faster than for open surgery; or

- **Robotic assisted radical prostatectomy:** Like laparoscopic surgery but performed with more advanced instruments controlled using a robotic console, which makes the keyhole surgery easier to carry out. In New Zealand robotic surgery is only available in private hospitals.

**Radiation Therapy**

Radiation Therapy (or radiotherapy) aims to cure cancer by using a controlled amount of targeted radiation to kill cancer cells so they can't continue to grow or spread. It is typically offered for treatment for locally and locally advanced prostate cancer.

Often there will be a course of hormone therapy prescribed in conjunction with the radiation therapy to reduce the size of the prostate before radiation. Sometimes radiation therapy is used following surgery and may also be used for metastatic disease to control the spread of disease.

There are two main types of radiation therapy:

1. **External beam Radiotherapy (EBRT)** is an outpatient treatment involving many doses of X-ray radiation delivered 5 days a week over 4-6 weeks. Beams of radiation are delivered by a linear accelerator machine targeting the areas where cancer cells are present. The aim is to kill those cells.

2. **Stereotactic Radiotherapy (SBRT)** is a similar procedure but a more intense, and targeted radiation treatment delivered in significantly fewer doses over about 2 weeks.

**Brachytherapy –** is a form of radiation delivered internally with the same aim of killing cancer cells. Radioactive material is inserted directly into the prostate using either of these two procedures:

1. **Low Dose Radiation (LDR) –** given by implanting permanent radioactive seeds directly into the prostate. The seeds give off concentrated amounts of radiation to the prostate with the aim of killing the cancer cells and curing prostate cancer. They are placed in a surgical

procedure that may take a few hours, and may require a stay in hospital overnight. This procedure is only available through private clinics in New Zealand.

2. **High Dose Radiation (HDR)** – given by inserting radioactive implants directly into the prostate. Unlike LDR seeds, the HDR implants are only placed temporarily and for shorter periods. The procedure takes place in hospital and may require a longer stay than LDR. It is available in a limited number of hospitals in New Zealand.

**Hormone or Androgen Deprivation Therapy (ADT)**

The aim of ADT is to reduce the body's production of testosterone which is the main driver of growth of prostate cancer. By reducing testosterone, the cancer cell growth slows, wherever they are in the body. ADT will usually deliver a reduction in the PSA level, indicating it is being effective.

ADT is usually offered to men with advanced or metastasised disease and also before, during and/or after radiation therapy to increase the effectiveness of the radiation treatment and reduce the chance of the cancer spreading. It may be used for a short period of time or for several years. It will not cure the cancer but will slow the growth and keep it under control, often for a number of years.

Prostate cancer may, in time, become resistant to ADT, (known as castrate resistant disease) and its effect will reduce. This is because the body finds alternative ways to produce testosterone that are not controlled by ADT. Other drugs can be introduced at that time.

Hormone therapy can be given in many forms including oral tablets, injections, or as an injectable implant every 1 or 3 months. There are a number of side effects from ADT but these vary among patients. Most men are content to tolerate the side effects knowing the benefits of the treatment in treating their cancer.

Goserelin-Teva. From December 2020, the Pharmac-funded brand of Goserelin changed from Zoladex to Goserelin-Teva

and it has come to our attention that some have had negative experiences with the administration of the implants. We are monitoring the situation and if this your experience we encourage you to complete a consumer report to the Centre for Adverse Reactions Monitoring (CARM). You can do this online at https://nzphvc.otago.ac.nz/consumer-reporting/ or visit https://nzphvc.otago.ac.nz/patients-public/#how-to-report for other reporting options. It can be helpful to also include photos in your report.

**Chemotherapy**

Chemotherapy is used to treat advanced and metastatic prostate cancer. It uses anticancer medication to destroy cancer cells. It cannot eradicate prostate cancer, but it can shrink it and slow its growth. Men may be offered chemotherapy if they have been diagnosed with advanced prostate cancer or if the hormone therapy they were on is no longer working to control the cancer.

Chemotherapy can relieve some of the symptoms of advanced disease and, depending on the cancer, it may help men live longer. A medical oncologist is the specialist who treats men with chemotherapy, and some of the other advanced therapies, assessing what is best depending on the needs and situation of the patient.

**Targeted Therapy**

These therapies use radioisotopes to treat advanced/metastatic prostate cancer that has spread to other parts of the body. It involves injecting radioactive molecules into the bloodstream. The molecules move through the blood to find prostate cancer cells and kill them. Examples of radioisotopes used in therapy include Radium 223 and Lutetium 177 (Lutetium-PSMA therapy). These may be available through some private clinics in New Zealand.

**Palliative Care**

Unfortunately not all prostate cancer can be cured and therefore treatment is needed to manage symptoms and

relieve pain in advanced disease. Palliative care is not just ‘end of life’ care – it aims to improve or maintain quality of life while living with the effects of advanced disease. Treatments may include radiation therapy to control disease spread to the bones as well as other medications and treatment to control pain.

## Clinical Trials and New Treatments in Development

Medical researchers and scientists continue to look for new and effective ways to treat prostate cancer. Once they have a possible treatment, they will conduct clinical trials to ascertain their effectiveness. Some clinical trials run in New Zealand and men interested should discuss the options available with their medical specialists. Some new treatments in development include:

**Focal Therapy** – Focal Therapy refers to a number of different approaches which aim to destroy localised areas of cancer within the prostate, using minimally invasive techniques to reduce side effects, leaving the rest of the prostate gland intact (although it can also be used to treat the whole gland). Focal Therapy techniques being investigated around the world include focal brachytherapy, HIFU (high intensity focused ultrasound), NanoKnife (irreversible electroporation), cryotherapy and interstitial laser ablation. Focal Therapy is not widely available in NZ and is only offered in private practice.

**Immunotherapy –** Sometimes called biological therapy, this is a cancer treatment that works by boosting a person’s own immune system to fight cancer. Though it is promising in other types of cancer, immunotherapy has not yet been found to be effective in prostate cancer and is currently only available through clinical trials.

**PARP inhibitors:** These medications work by killing cells with damaged DNA, preventing cancer growth. Clinical trials have shown promising results to date. However, routine use of PARP inhibitors is not available in New Zealand at this time.

**Treatment sequencing**: some trials are investigating using the range of treatments in different sequences to the usual treatment programmes.