



## PROSTATE CANCER

*This information sheet is for your general information and is not a substitute for medical advice. You should contact your doctor or other healthcare provider with any questions about your health, treatment or care.*

### What is prostate cancer?

Prostate cancer starts in the prostate gland, which is a small gland located below the bladder, that is responsible for secreting one of the components of semen. The prostate cancer cells form masses of abnormal cells known as tumours.

After lung cancer, prostate cancer is the second most common cancer in males. It occurs mostly in those aged 60 and older. Continuous exposure of the prostate to the male hormone testosterone, probably plays a role in the development of malignancy (cancerous cells). Genetics and dietary factors have also been identified as playing a role.

### What are the symptoms?

There usually aren't any early warning signs for prostate cancer as the growing tumour does not push against anything to cause pain, making it a silent disease that may not be detected for many years. Screening for prostate cancer is an important topic for all men and their families.

In rare cases, prostate cancer can cause symptoms that include:

- a need to urinate frequently, especially at night, sometimes urgently
- difficulty starting or holding back urination
- weak, dribbling, or interrupted flow of urine
- painful or burning urination
- difficulty in having an erection
- a decrease in the amount of fluid ejaculated
- painful ejaculation
- blood in the urine or semen
- pressure or pain in the rectum
- pain or stiffness in the lower back, hips, pelvis or thighs.

### How do we detect prostate cancer?

Screening (testing) for prostate cancer has an important role to play in the early diagnosis of the condition. It can be performed by carrying out one of these tests:

- digital rectal examination
- transrectal ultrasound
- prostate specific antigen (PSA) blood test.

A PSA test, however, is not the most appropriate screening test, since it is not specific for prostate cancer – a rectal examination is the screening test of choice. Monitoring should start at the age of 50. With a strong family history, the recommended starting age for screening is 40.

Being a relatively slow-growing cancer, long-term survival is seen even in cases where the condition has become widespread.

To find out if you have the condition and how far it has spread, your treating doctor may ask that the following tests be carried out:

- Tissue is taken from the prostate (called a biopsy) to confirm the presence of cancer and to find out what kind of cancer it is.
- Isotope scans, if indicated, are a way of imaging bones, organs and other parts of the body by using a small dose of a radioactive chemical.
- A chest X-ray will be done.

- Cystoscopy is performed with a lighted optical instrument called an endoscope to get a look inside the bladder.
- Blood and urine analysis is performed to assess if the cancer has spread to other parts of the body, and how the cancer has affected the functioning of the kidneys.

Your doctor may require further investigation, depending on your symptoms at the time of the tests.

### **What are the treatment options?**

Treatment will depend on the nature and extent of the condition, as well as your general state of health.

Watchful waiting, radical surgery (which removes all diseased tissue), various forms of radiation therapy and hormonal therapy are all used in the treatment of this condition.

Robotic surgery is sometimes advocated, but indications for this are limited and the technology is quite expensive (talk to your medical scheme before committing to the cost of robotic surgery).

If cancer is diagnosed early, watchful waiting is still sometimes recommended. However, radiation and radical surgery are most commonly used. The following radiation treatment options exist:

- Permanent prostate implants are a type of radiation therapy in which a high dose of radiation is delivered to cancerous tissue by many small radioactive 'seeds'. There are very strict criteria that must be met before this treatment may be performed.
- Intensity-modulated radiation therapy (IMRT) is a form of external beam radiotherapy that uses computer-controlled X-rays to deliver precise radiation doses to tumours or specific areas in the tumour. IMRT allows the radiation dose to conform more precisely to the three-dimensional shape of the tumour by controlling the intensity of the radiation beam.

The results of these forms of treatment are similar.

In more advanced cases, and without proof that the condition has spread to the rest of the body, radical external beam radiation is the treatment of choice, with or without temporary or long-term hormonal treatment.

For metastatic disease, i.e. where the cancer has spread from one organ to another, hormonal treatment remains the primary treatment. It can mean surgical removal of the testes or, alternatively, the blockage of testosterone production using injections or pills. The effect of testosterone blockage is loss of libido (sexual drive), impotence and breast enlargement. Radiation to painful areas where the condition has spread to the bones, can be added as and when needed to improve quality of life.

Chemotherapy is largely unproven in this condition and is only used when all other forms of treatment have failed. The five-year survival rate of prostate cancer is 100%, taking into account the stage of the disease.

### **References**

1. CANCERCARE (previously GVI Oncology South Africa). Website. <http://www.cancercare.co.za>.
2. PROSTATE CANCER FOUNDATION. Website. <https://www.pcf.org/>.
3. UPTODATE. 2016. Website. <http://www.uptodate.com/home/index.html>.

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