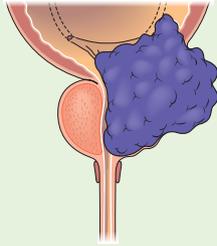




Metastatic prostate cancer

Metastatic prostate cancer is advanced disease that has spread beyond the prostate gland. Prostate cancer starts in the prostate gland, which surrounds the urethra.

The tumor may spread outside of the capsule that surrounds the prostate gland and become fixed to the side walls of the pelvis. This is known as stage 4 (or T4).



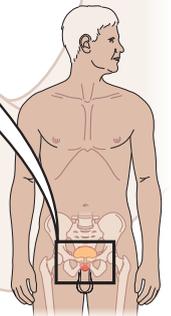
Blood vessels link the prostate to the lower back, pelvis and spine

Prostate gland surrounds the urethra

Pelvic bones

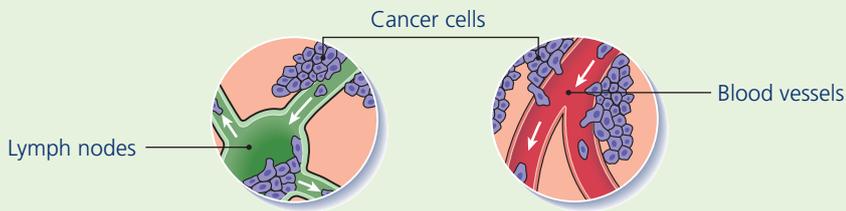
Lymph system removes excess fluid from the body's tissues

Urethra (the tube through which men urinate and ejaculate)



What is metastatic prostate cancer?

Tumor cells may break off and travel through the **lymph system** and **blood vessels** and then lodge in other parts of the body, where they start to grow.



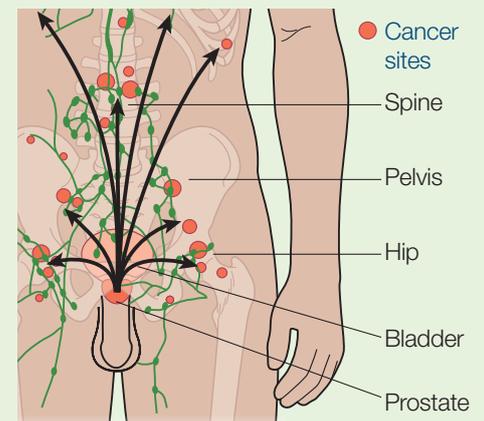
These growths are called **metastases** (mets for short) or secondaries. This stage is called **metastatic** or **advanced prostate cancer**.

Note that the disease is still called prostate cancer, regardless of where the metastases are found, because the metastases are from a tumor in the prostate gland.

Where will it spread to?

The prostate gland is surrounded by lymph vessels, so the cancer usually spreads to the lymph glands (also called nodes) in the pelvis first, and then to the bones of the lower spine and pelvis.

Once tumor cells are in the lymph glands and blood vessels, they may spread to any part of the body but they are most commonly found in the bone.



How will metastatic prostate cancer affect me?

Metastatic prostate cancer affects men in different ways, depending on where it has spread to. You may experience the following:

- Bone pain and increased risk of fracture
- Difficulty urinating, blood in your urine
- Bowel problems such as constipation, diarrhea, stomach or anal pain
- Fatigue
- Erectile dysfunction
- Nausea and loss of appetite
- Swelling of the legs (and sometimes the penis and scrotum)
- Blood clots

How is metastatic prostate cancer treated?

1. Androgen-deprivation therapy (ADT)

The **first step is to reduce levels of testosterone** in the body, as the tumor depends on testosterone to survive. This is known as **androgen-deprivation therapy or ADT**. The box below tells you more about the medicines that are used, and some of the most common side-effects. Surgical removal of the testes (orchiectomy) is an effective alternative approach but cannot be reversed. ADT usually produces dramatic results quite quickly, and can keep the disease in check for 2–3 years.

Medicines used for ADT

- **LHRH (or GnRH) agonists and antagonists** are used to reduce the amount of testosterone in the body in order to slow the tumor growth.
- You may take one of these medicine all the time (continuously) or for short periods at a time (intermittent treatment), depending on your PSA level.
- These are given as an injection every few months, either into muscle or under the skin, or may be taken as a nasal spray.
- The adrenal glands also produce small amounts of androgens, including testosterone, so medicines called **anti-androgens** may be used before or together with an LHRH agonist or antagonist. These are tablets or capsules taken daily.

Common side-effects of ADT

Men vary widely in terms of the side-effects they experience with ADT. You may be offered additional medicines (such as steroids) to help with these. Potential side-effects include:*

- Hot flashes
- Decreased libido and erectile dysfunction
- Lethargy/fatigue and mood changes
- Breast tenderness or swelling
- Loss of body hair
- Osteoporosis
- Weight gain
- Loss of muscle mass and strength
- Change in blood lipids and other metabolic effects

2. Cancer progression during ADT

Eventually, the prostate cancer starts to progress again (relapses) during ADT and becomes less dependent on testosterone; this is known as **castrate-resistant prostate cancer**. Several treatment options are available at this stage, depending on your general health and age as well as the disease progression. These include:

- Adding or withdrawing an anti-androgen
- Immunotherapy
- Changing to a different anti-androgen
- Chemotherapy
- Radio-isotope treatment
- Treatment in a clinical trial

How are bone metastases treated?

Bone metastases can be treated in a variety of ways, in addition to ADT:

- Radiotherapy
- Medicines called bisphosphonates and possibly denosumab
- Radiopharmaceuticals

What is PSA and why is it important?

PSA is short for prostate-specific antigen, a protein is measured in blood samples. The level of PSA provides your doctor with useful information about your disease and how well treatment is working.

Men can live for many years with prostate cancer, even when it has metastasized. There are many things you can do alongside clinical treatment to improve your general health and wellbeing.

What can I do to help myself?



- Eat a balanced, varied, tasty diet, including plenty of fruit and vegetables
- Drink green tea, which has been shown to be beneficial in men with prostate cancer
- Take a daily multivitamin supplement, including vitamin D and calcium, to protect your bones



- Exercise regularly to boost your mood and help protect your bones
- Spend time outside to help your vitamin D levels and mood



- Talk to people about your disease – this will help both you and them on your journey
- Get support from health professionals, family, friends and support groups – don't face this alone
- Ask questions about anything that worries you or you don't understand

*The complete list of possible side-effects with ADT is given in the patient information leaflet provided with the medicine.

The information in this leaflet is based on Kirby RS & Patel M (2017) *Fast Facts: Prostate Cancer*, 9th edition, and Coetzee L (ed) *Fast Facts for patients and their supporters: Metastatic Prostate Cancer*, both published by Health Press Limited, UK.