

Prostate cancer that has spread beyond the prostate to other parts of a man's body is considered advanced prostate cancer. In some cases, this might mean it has spread to nearby lymph glands or the seminal vesicles. This is referred to as Stage III prostate cancer. In other cases, however, the cancer might have spread to the bones or other organs. This is referred to as Stage IV prostate cancer, or metastatic prostate cancer.

Since there are often few symptoms of prostate cancer, this diagnosis can sometimes be unexpected. In other cases, prostate cancer has returned, or recurred, after an initial treatment like surgery or radiation. This fact sheet focuses on Stage IV prostate cancer.

### **Treating Metastatic Prostate Cancer**

The goal of treatment for men with metastatic prostate cancer is to keep the cancer from spreading and causing more harm, and to limit side effects from the disease. For many men, their health care team focuses on managing the cancer as a chronic disease.

### **Hormone Therapy**

There are several different types of hormonal therapy, also referred to as androgen deprivation therapy (ADT), used in the treatment of advanced prostate cancer. Hormonal therapies work in different ways to stop production of male hormones (androgens) such as testosterone. This is important because prostate cancer cells feed off of testosterone and these drugs can stop the cancer's fuel source.

Many times drugs such as Lupron®, Eligard®, Casodex®, and Firmagon® are the first hormonal therapies used to manage a rising PSA. When prostate cancer no longer responds to these hormonal treatments and spreads throughout the body to another organ, such as the bones, the disease is now called metastatic castration-resistant prostate cancer (mCRPC). At this point, the medications Zytiga® with prednisone and Xtandi® may be an option for treatment. Both medications are oral therapies used to treat men with mCRPC. Zytiga works to reduce testosterone production. Xtandi is an androgen receptor antagonist.

### **Immunotherapy**

This is a unique type of treatment that trains the body's immune system to fight the cancer in men with mCRPC. Currently, Provenge®, a therapeutic vaccine, is the only immunotherapy approved for prostate cancer. This is most frequently used in men with low levels of metastatic disease.

### **Chemotherapy**

This type of treatment is used at different points for men with mCRPC. Chemotherapy works by killing all rapidly dividing cells, including cancer cells and other cells such as your hair, lining of your gastrointestinal tract, and the mucosal cells of your mouth. Killing these cells can lead to hair loss and the development of mouth sores or ulcers. Chemotherapy is commonly used after trying other treatments. Chemotherapy treatments for prostate cancer include Taxotere® and Jevtana®.

### **Clinical Trials**

Medical science is always gaining new insights into how treatments for prostate cancer work best. In the future there may be new breakthroughs in timing, dosage, or combination regimens that lead to better patient outcomes. To participate in the cutting edge of treatment for prostate cancer, men can find clinical trials through their doctor or [clinicaltrials.gov](http://clinicaltrials.gov).

## **Glossary of Terms:**

**Metastatic:** cancer that has spread to other organs and/or the lymph nodes

**Castration-resistant:** prostate cancer that no longer responds to androgen deprivation therapy alone and is typically treated with additional medications

**mCRPC:** a shorthand for metastatic castration-resistant prostate cancer

**Recurrence:** prostate cancer that has returned after initial treatment

**Hormone therapy:** treatment that prevents the body from producing androgens (male hormones like testosterone)

**Immunotherapy:** treatment that uses the body's immune system to fight a patient's prostate cancer

**Chemotherapy:** treatment that kills rapidly dividing cells throughout the body, including prostate cancer cells

**Clinical Trials:** research studies that investigate ways to treat disease, including testing new medicines, combinations of medicines, timing of medicines, and other aspects of treatment or side effects of a disease

## PROSTATE CANCER IN THE BONES

Often, advanced prostate cancer involves metastases, where the cancer has moved to other organs, lymph nodes, or bones. In prostate cancer, the most common site of metastases is the bone. The majority of men with advanced prostate cancer will develop bone metastases at some point in their lives. For some, this can cause pain and affect daily life.

Metastases can be treated and the pain related to them can be controlled. Fortunately, one of the treatments available today for metastases, Xofigo®, also extends life. Xofigo® and other radiopharmaceuticals are systemic therapies, which means they are injected into the body.

The pain related to bone metastases can be treated with the use of external beam radiation therapy. To alleviate pain in certain locations, radiation is directed at a specific spot in the body to kill the cancer cells.

### Maintaining Bone Health

Hormone therapy, particularly over a long period of time, can weaken bones. It reduces a man's testosterone, which upsets the balancing act of bone formation and breakdown. Without testosterone, bones can become weak and break more easily. Medicines and lifestyle changes can prevent bone loss and improve bone density over time. Strive for a healthy diet and include weight bearing exercises in your daily routine. Treatment options to prevent bone loss or restore bone strength include Zometa® and Xgeva®.

### Living With Advanced Prostate Cancer

Living with an advanced prostate cancer diagnosis can be challenging. Your priorities regarding relationships, career, or lifestyle may change. Many people with cancer say that they appreciate life more and have gained a greater acceptance of self. At the same time, many are also anxious about their future. Talking about these fears with loved ones or in a support group, writing down thoughts in a journal, or seeing a counselor can all help to reduce anxiety.

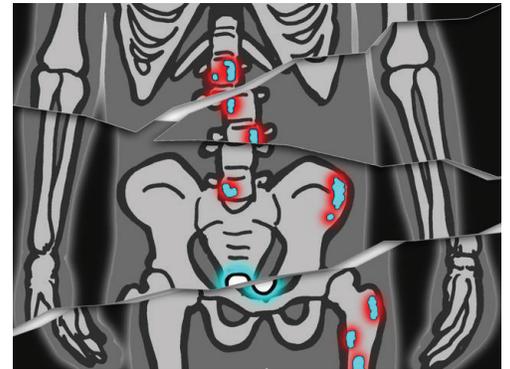
You also may experience side effects from the cancer and the treatments. If you are experiencing side effects, make sure your treatment team knows so you can work together to best manage them. There is no need to suffer in silence.

## Glossary of Terms:

**Bone Metastases:** areas of prostate cancer that are growing in the bone

**Radiopharmaceuticals:** radioactive systemic treatment for bone metastases that can reduce bone pain

**External Beam Radiation:** high energy radiation beams directed at a particular spot in the body from the outside



## LEARN MORE

We encourage you to use this information in conversations with your health care team about prostate cancer and related topics. For more information about prostate cancer and ZERO – The End of Prostate Cancer, visit our website [www.zerocancer.org/learn](http://www.zerocancer.org/learn).

*Support provided by Astellas, Medivation, and Janssen.*

ZERO - The End of Prostate Cancer provides this information as a service. It is not intended to take the place of medical professionals or the recommendations of your health care team. We strongly suggest consulting your health care team if you have questions about your specific care.