

# Androgen Deprivation Therapy

A PATIENT'S GUIDE



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Welcome to the Androgen Deprivation Therapy (ADT) clinic at Tennessee Urology. New advancements in therapies for prostate cancer, including hormone therapy, are allowing patients to live longer and better quality lives.

At Tennessee Urology our goal is to provide you with superior care and to be here for you every step of your prostate cancer journey.

Our ADT clinic for the delivery of hormone therapy is led by our team of highly trained providers who will meet with you as you begin your hormone therapy.

Patients benefit from close interactions with our ADT clinics. At your visit we will review the benefits and side effects of ADT. We will also help you prevent and manage side effects. We are also here to answer your questions regarding your overall treatment plan.

## WHAT'S INSIDE

- 2. About Androgen Deprivation Therapy (ADT) for Prostate Cancer
- 5. Maintaining Bone Health During ADT
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## ABOUT ANDROGEN DEPRIVATION THERAPY (ADT) FOR PROSTATE CANCER

Androgen Deprivation Therapy (ADT) is a hormone therapy used to decrease testosterone, which is the male hormone that causes prostate cancer to grow.

### How does ADT work to treat prostate cancer?

Prostate cancer cells are hormone-sensitive and need androgens to grow. Testosterone is an androgen. Hormone therapy drastically lowers your body's androgens, thereby slowing the cancer cell's growth. Used alone, androgen deprivation therapy is not curative. However, it has been shown to increase the likelihood of cure for localized disease when combined with certain other therapies. It can also significantly extend life expectancy when the cancer has spread beyond the prostate.

### How does the medication work?

The medication stops production of testosterone by the testicles. The route of administration and the type of medication used will be determined by considering your other medical conditions, insurance coverage, and your personal preference.

### How is ADT given?

Androgen deprivation therapy can be administered in pill form or with an injection. Injectable androgen deprivation medications need to be administered every one to six months. The injection is either given in the abdomen or in the gluteus muscle (the buttocks).

### When is hormone therapy recommended?

- As an initial treatment for metastatic disease.
- In select patients who have an elevated PSA or recurrence of prostate cancer following radical prostatectomy or radiation therapy.

- Patients with intermediate or high risk disease receiving radiation for curative intent. In this case the course of ADT will be 3-36 months.
- To decrease the size of the prostate gland before having a radical prostatectomy, radiation or focal therapy to make the procedure technically easier. Therapy performed prior to treatment is called neoadjuvant therapy.

### How long will I be on ADT?

As a short-term treatment for prostate cancer, ADT is usually given along with another therapy, such as radiation, in an attempt to cure prostate cancer. In this scenario, ADT is generally administered for 2-36 months.

When the cancer has spread outside the prostate (metastatic prostate cancer), men are often placed on life long hormone therapy.





## What are the side effects of ADT?

The most common side effect of ADT is hot flashes. These usually last a few seconds to minutes before subsiding. You may also feel tired, and may experience a decrease in sex drive or the ability to achieve an erection. Long term use can result in decreased muscle mass, weight gain and decreased bone density (osteopenia or osteoporosis).

## How can we manage the side effects of ADT?

For the most part, men who experience hot flashes tolerate them without treatment. If the hot flashes are severe, your practitioner can prescribe medication to make these more tolerable or resolve them.

For your bone health, calcium and vitamin D supplements are recommended. We often recommend imaging to assess bone density and monitor your calcium and vitamin D levels.

If erectile dysfunction (ED) is bothersome, your provider can discuss treatment options.

## MAINTAINING BONE HEALTH DURING ANDROGEN DEPRIVATION THERAPY

One of the side effects of ADT is loss of bone density and increased risk for fracture. A goal of the ADT clinic is to minimize these side effects and protect bone health.

### Are supplements beneficial?

To preserve or regain bone density we recommend calcium supplementation (500-600 mg) twice per day. The calcium should be taken in the morning and in the evening as the body can only absorb a certain amount at a time. Your provider will also recommend taking a vitamin D supplement (2,000 IU daily) to help your body better absorb the calcium. You will receive regular blood tests to ensure optimal levels of calcium and vitamin D.

### How do I know if I have bone loss?

A bone density scan, also known as a DEXA scan, is a specialized imaging test that is used to measure bone strength. This scan is typically performed every one to two years.

The results of your DEXA scan will either show normal bone density, osteopenia or osteoporosis. Osteopenia means that there is some loss in overall bone strength. Osteoporosis is a severe loss of bone strength, which puts you at a higher risk of breaking a bone (fracture).



## **Are there other medications that will help maintain bone health during ADT?**

Your doctor may prescribe medications that can help reduce bone loss and the spread of cancer in the bone. This may help alleviate pain and other complications.

- **Prolia®** is used to increase bone mass in men with non-metastatic prostate cancer (cancer that has not spread) whose DEXA scan shows osteopenia or osteoporosis. You may also be prescribed Prolia, if you are at high risk of osteoporosis. This medication is administered by injection once every six months.
- **Xgeva®** is used for patients with metastatic bone disease to prevent bone fracture, severe bone pain, and/or spinal cord compression. Xgeva is administered by injection every four weeks.

## **What are the side effects of these medications?**

Prolia and Xgeva are generally very well tolerated. One potential side effect is a reduced blood calcium level. For this reason we monitor labs and recommend calcium supplementation.

These medications can also cause a rare but serious condition of the jaw called osteonecrosis. Patients receiving these injections should visit a dentist on a regular basis and make them aware you are receiving this medication. If you need to have dental work other than a standard cleaning, your injection may need to be deferred. Please alert our team if you require dental work so we may plan accordingly.

## **Are there other ways to maintain bone strength?**

Stopping smoking is also essential for maintaining bone health. Routine exercise and smoking cessation will also help you maintain your cardiovascular health and can combat fatigue associated with ADT.

## **PREPARING FOR YOUR VISIT TO THE ADT CLINIC**

As you begin hormone therapy, your healthcare team will review what you can expect over the course of your treatment. These visits are also a good opportunity to discuss all aspects of your prostate cancer journey including other treatments and recommended testing.

### **What to expect at your ADT clinic visit**

At your initial visit to the ADT clinic you will meet with a provider to review your treatment plan. All aspects of the therapy will be explained, as well as the potential side effects.

### **How do I prepare for my visit?**

We should ensure that your health history is complete and accurate. Please bring a list of your current medication (including supplements). Otherwise, there is no special preparation required. You may want to write down any questions or concerns you have prior to the visit. Feel free to also bring a family member or friend along for company and support.

### **Who do I call with questions or concerns related to my visit and treatment?**

Please call the Tennessee Urology office where you are regularly seen or use the patient portal to communicate with your provider or prostate cancer navigator. If you need help setting up the patient portal please call the office or ask for information at your visit. We are also happy to speak to family members, with your permission.

## **What other educational resources are available to me?**

We understand you may have questions regarding prostate cancer care and treatment options. The following is a list of patient-friendly and informative websites that are excellent sources of education about prostate cancer:

Tennessee Urology Prostate Cancer Care Program -  
<https://www.unitedurology.com/conditions-treatments/for-men/prostate-cancer/>

National Cancer Institute -  
[www.cancer.gov/types/prostate](http://www.cancer.gov/types/prostate)

ZERO-The End of Prostate Cancer - [www.zerocancer.org](http://www.zerocancer.org)

The American Cancer Society -  
<http://www.cancer.org/prostatecancer>

Blue Flowers Org: Empowering Women & the Men in their Lives Against Prostate Cancer - [www.blueflowers.org](http://www.blueflowers.org)

