

# Minimizing the Side Effects of Androgen Deprivation Therapy (ADT) for Managing Prostate Cancer

Androgen deprivation therapy (i.e. Lupron, Eligard) is used to slow the progression of advanced prostate cancer by eliminating testosterone production or blocking it at a cellular level. There are a number of possible side effects associated with the use of these medications. Not everyone experiences these side effects and some have more side effects than others.

**Inform your PCP or cardiologist that you are on androgen deprivation therapy so they can monitor your glucose, cholesterol, vitamin D, bone density.**

## Side Effects

- Decreased sex drive
- Erectile dysfunction
- Breast tenderness and growth
- Loss of muscle strength
- Bone density loss, increased risk of fracture
- Weight gain, change in fat distribution
- Hot flashes
- Memory decline, depression
- Changes in blood pressure
- Elevated cholesterol and blood sugar
- Fatigue



## **MINIMIZING LOSS OF BONE DENSITY (osteoporosis)**

Loss of bone density may increase the risk for fracture.

Ways to minimize the loss of bone density include:

- 1) Weight lifting or resistance exercise (every other day), walking (30 min daily). Presbyterian offers a free 16 week exercise program for cancer patients. Ask your doctor or call 214-345-4838.

- 2) Vitamins:

**Calcium 1,200 mg per day** (from food & supplements) Calcium is best absorbed when taken in 500-600 mg dose (2-3 times a day) . Calcium citrate supplements can be taken with or without meals. Calcium carbonate must be taken with a meal.

**Vitamin D3 800-1,000 IU per day**

**Bayer Citracal® Slow Release 1200** contains the recommended amounts of calcium and D3 in one pill. Check vitamin D levels.

- 3) Bone density testing (Dexascan) should be performed before you start androgen blocking treatment if you are going to be on it for more than 6 months and then yearly while on androgen blocking treatment.
- 4) Bisphosphonates may have to be prescribed if there is evidence of loss of osteoporosis.

## Minimizing Side Effects

**HOT FLASHES** may be minimized by lifestyle changes.

- 1) Hot beverages, spicy foods and excess alcohol or caffeine may trigger hot flashes.
- 2) Controlled, deep, slow abdominal breathing (6-8 breaths per minute for at least 15 minutes twice a day or at the beginning of a hot flash). This is known as “paced respiration” and may decrease hot flashes and their severity.
- 3) Try to stay cool by reducing room temperature, drinking cool beverages, wear loose-fitting clothing. A rise in body temperature may trigger a hot flash.
- 4) Maintain a hot flash diary to assess the severity and frequency of the hot flashes and to assess the response of treatments to include time of day, severity, and activity instigating the hot flash.
- 5) Weight control may also help reduce the incidence and severity of hot flashes.
- 6) For moderate to severe hot flashes prescriptions medications Megace or venlafaxine may be helpful. Talk to your PCP about these if needed.

## **MAKE HEALTHY FOOD CHOICES** to control weight gain.

Manage your caloric intake. Whey protein isolate may assist with appetite suppression. Talk to your PCP.

**FATIGUE:** Resistance exercises, caffeine from beverages. American ginseng root powder (2,000 mg day) check with PCP before taking, may interfere with blood thinners.

## **DISCUSS THE FOLLOWING WITH YOUR PRIMARY CARE**

**PHYSICIAN:** Obtaining a bone density scan. Monitor blood pressure , blood glucose and cholesterol.

## **EXERCISES:**

<https://www.fredhutch.org/en/research/institutes-networks-ircs/institute-for-prostate-cancer-research/patient-video-series.html>lies (fredhutch.org)

*Reference: Integrating diet and exercise into care of prostate cancer patients on androgen deprivation therapy. Res Rep Urol 2016;8:133-143.*

