

Prostate Cancer & Bone Loss

WHAT IS PROSTATE CANCER?

The prostate is the gland that makes seminal fluid, the milky substance that transports sperm during ejaculation (orgasm). Prostate cancer starts in the cells of the prostate but can spread throughout the body. Other than skin cancer, it is the most common cancer in U.S. men. About one of six men will be diagnosed with prostate cancer during his lifetime, but only one man of 33 will die of this disease.

In most men, prostate cancer grows very slowly and stays inside the prostate gland, where it does little harm. Many men with the disease will never know they have it. But, aggressive forms of prostate cancer can spread quickly to other parts of the body, including bone.

WHEN SHOULD YOU BEGIN TO SCREEN FOR PROSTATE CANCER?

Prostate cancer often has no symptoms (what you feel). Most men should get a yearly prostate checkup starting at age 50. Prostate cancer is more common in African American men and men with a family history of the disease. If you are in one of these high-risk groups, you should begin annual prostate checkups at age 45.

Most experts recommend stopping annual prostate exams at about age 70 or when expected life span is less than 10 years.

DID YOU KNOW?

About 80 percent of men who reach age 80 have prostate cancer.

HOW IS PROSTATE CANCER TREATED?

Treatment for prostate cancer will depend on

- How fast your cancer is growing
- How much, or if, it has spread
- Your age and life expectancy
- The benefits and possible risks of treatment

Because most prostate cancers grow very slowly, current treatment options include "watchful waiting" to see if the disease spreads. Other options are surgery to remove the tumor, chemotherapy, radiation treatment, and androgen deprivation therapy (ADT).

The male hormone testosterone and its related hormones, called androgens, can cause prostate cancer to grow. ADT stops the production of these hormones. ADT can be permanent by surgically removing the testicles. More often, though, it is temporary by using certain medications to keep the testes from making testosterone.

Doctors use ADT mainly to treat prostate cancer that has spread outside the prostate. ADT can cause a large loss of bone density, making the bones weak and more likely to break (fracture).

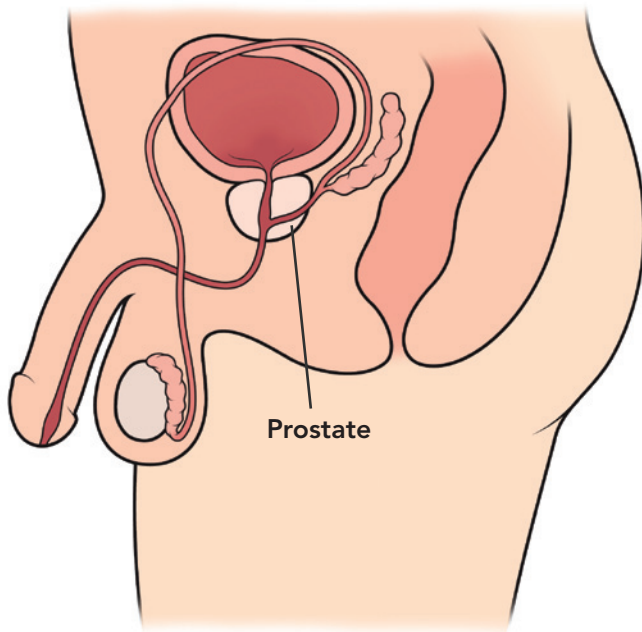
Because the risk of bone loss with ADT is great, if you are receiving or will receive treatment with ADT, ask your doctor if you should have a dual energy X-ray absorptiometry (DEXA) scan. This imaging test measures your bone mineral density (BMD), the amount of bone you have in a given area, such as your spine or hip. Men with low BMD at the start of ADT, or who lose bone during ADT, may benefit from medications designed to prevent bone loss and osteoporosis.

WHY IS BONE LOSS DANGEROUS?

In the United States, at least two million men have osteoporosis. About one in five men over age 50 will have a bone fracture related to osteoporosis that will seriously affect their quality of life. Osteoporosis in men can be a major health problem, above all among those who break a hip. Elderly men are much more likely than women to die or have chronic (long-term) disability after a hip fracture.

YOU CAN HELP PREVENT OSTEOPOROSIS BY

- Taking 1,000 mg to 1,500 mg of calcium each day
- Taking 1,000 to 2,000 IU of vitamin D each day
- Doing daily weight-bearing exercises (such as walking, running, lifting weights)
- Not using tobacco
- Limiting alcohol intake (no more than 1–2 alcoholic drinks daily)



HOW CAN YOU PREVENT BONE LOSS DURING AND AFTER PROSTATE CANCER TREATMENT?

The most effective way to prevent bone loss during treatment for prostate cancer is by using medications called bisphosphonates. Bone loss is greatest early in the course of ADT treatment, so using bisphosphonates to prevent osteoporosis may be most effective if started in the first year. You may need to keep taking these medications for a few years to protect your bones.

Apart from cancer treatment, men with prostate cancer may have bone loss due to other causes. These may include lack of physical activity, tobacco use and drinking too much alcohol, a diet low in calcium and vitamin D (which is needed for calcium to be absorbed into bone), anti-seizure medications, and glucocorticoids (such as prednisone) used to treat other conditions.

If you have prostate cancer, you should consider the health of your bones when making decisions about cancer treatment. Discuss with your doctor your risk of bone loss and ways you can prevent osteoporosis.

Questions to ask your doctor

- When should I start screening for prostate cancer?
- What stage is my prostate cancer?
- What are my treatment options?
- What are the risks and benefits of each of these treatments?
- Should I see an endocrinologist?

RESOURCES

- Find-an-Endocrinologist: www.hormone.org or call 1-800-HORMONE (1-800-467-6663)
- Hormone Health Network information about bone loss: www.hormone.org (search for osteoporosis)
- National Osteoporosis Foundation: www.nof.org
- Prostate Cancer Foundation: www.pcf.org
- American Society of Clinical Oncology: www.cancer.net

EDITORS

Benjamin Leder, MD
Eric Orwoll, MD

The Hormone Health Network offers free, online resources based on the most advanced clinical and scientific knowledge from The Endocrine Society (www.endo-society.org). The Network's goal is to move patients from educated to engaged, from informed to active partners in their health care. This fact sheet is also available in Spanish at www.hormone.org/Spanish.

