

memory, reduce depression and fatigue, and recently it has even been shown to improve sexual function for patients on ADT [11].

To bring this back to the psychological impact of ADT on patients and its indirect impact on partners, exercising together can help maintain intimacy and thus help keep prostate cancer couples together. In that regard, I am particularly impressed with the “Exercising Together” program for prostate cancer patients developed at the Oregon Health & Science

University (OHSU) in Portland, Oregon [12]. This is a partnered, strength-training program for prostate cancer couples, which essentially trains patient and partner to work as a training team, partly by being the fitness trainer for each other and partly by doing exercises in tandem. The final results of that study are soon to be submitted for publication, but preliminary analyses show that partnered exercise is helpful not just in strengthening patients’ and partners’ bodies and minds, but also strengthening their spousal bond. The Vancouver Prostate

Cancer Supportive Care program where I work is now piloting a modified version of the program.

Not all prostate cancer patients have life partners, but having one and keeping one’s partnership strong and healthy is one of the most effective treatments for prostate cancer. As Aizer et al. [13] noted, the survival benefit for prostate cancer patients in having a supportive spouse (call it marriage if you will) beats any benefit of chemotherapy. □

References can be found online at PCRI.org

Bone Health & Prostate Cancer

Understanding Your Risk of Osteoporosis

By Jan Manarite

PCRI Senior Educational Facilitator

Your skeletal system is a system of organs - a living, growing, integral part of your overall health, just like any other organ system within your body. Each bone is considered an organ in and of itself. Keeping your bones healthy can have multiple benefits, the greatest of which is preventing fracture. This article is intended to give you a better understanding of your risk of osteoporosis, and develop the right questions to research for yourself, and ask your physician(s).

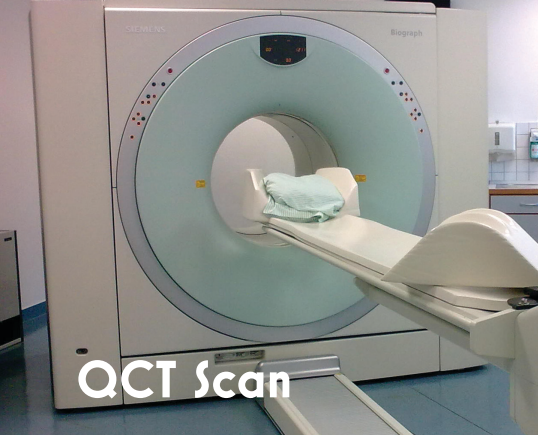


Osteoporosis is not just a ‘condition’ – it is a ‘disease’. This may surprise you, but the National Osteoporosis Foundation states that men older than 50 are more likely to break a bone due to osteoporosis, than they are to get prostate cancer.

The International Society for Clinical Densitometry (ICSD) states that “Osteoporosis is under-recognized and under-treated. Testing for bone loss, or osteoporosis (DEXA Scan, QCT) in men is not done routinely. There is a prevalent misconception that osteoporosis is a disease of women.” About 20% of people with osteoporosis are reported to be men.

When Should You Ask for A Bone Density Test?

Start by asking your primary care physician, or your medical oncologist. Sometimes initiating the conversation with a nurse can be helpful. Understanding some background information about osteoporosis will help you carry on a more informed conversation.



QCT Scan



DEXA Scan

Primary Risk Factors:

- Hormone therapy treatment
- Over age 50
- Having a thin frame/stature
- Tobacco use
- Excessive alcohol or caffeine
- Lack of exercise
- Vitamin D deficiency
- Thyroid or parathyroid problems
- Cortisone use
- Previous fracture
- Bone metastases

There are several types of **bone density tests**, but the most common are the DEXA Scan and the QCT. PCRI Executive Director, Dr. Mark Scholz, states that "... only QCT is accurate in men. In men, DEXA seriously underestimates the degree of osteoporosis." However, the DEXA Scan is certainly the most commonly used scan, and easier to locate, but it is worthwhile to look for a radiology site that offers the QCT. Both tests are quick, easy, and do not require an injection.

Table 1

Categories	T-Score Range	Examples
Normal Bone Density	-1 and above	1.0, 0, -.5
Osteopenia	Between -1 and -2.5	-1.1, -1.5, -2.4
Osteoporosis	-2.5 and below	-2.5, -3.0, -4.0

Many prostate cancer patients have had a bone scan as part of their original staging, or checking for recurrence. It is important not to get this confused with a bone density test – they are different. The bone scan looks for cancer, and the bone density test looks for osteoporosis.

Your Bone Density Report

PCRI recommends that you obtain and keep copies of your medical records, including the written report from your bone density test. These reports can look daunting at first, but if you learn what to look for, you can develop a basic understanding of the key important findings. In the case of a *bone density report*, it is primarily one score that you are looking for, the T-Score. This is the score that gives you a diagnosis, and the state of the density of your bones. (See Table 1.)

Treating Osteopenia or Osteoporosis

There are several approaches to treatment, but weight-bearing exercise or resistance exercise is foundational. Exercise in general is of great overall

benefit to prostate cancer patients. Of course, this should be discussed with a professional, especially if you already have bone loss, or have been diagnosed with bone metastases. But research has shown that weight-bearing exercise not only builds muscle, but can also build bone density.

Estrogen has also been shown to play a role in bone health. Studies have shown that estrogen can help men with bone loss, hot flashes, and sometimes even fight their prostate cancer. Testosterone is converted to estrogen and that stimulates bone health. Estrogen, which is missing in men on hormone therapy, can be administered safely in the form of a low-dose skin patch. Estrogen is one way to slow the rate of bone loss. In addition to exercise and estrogen, there are additional treatments available for prostate cancer patients who have osteoporosis, bone metastases, or both. It is important to note that **all of the treatments in Table 2 recommend a dental exam before starting therapy and supplementing with and/or monitoring levels of both calcium, and vitamin D3.**

In addition to the treatments listed in Table 2, there are prescription pills which are in the same class of drugs as Zometa & Reclast (bisphosphonates), which are designed to prevent and treat bone loss. They include Fosamax (alendronate), Boniva (ibandronate), and Actonel (risedronate).



Table 2

Drug	Insurance Eligible Patients	Administration
Zometa (Zolendronate)	PC patients with bone metastases	IV Drip Monthly
Xgeva (Denosumab)	PC patients with bone metastases	1 Shot Monthly
Prolia (Denosumab)	Men with osteoporosis at high risk of fracture or pc patients on hormone therapy (no bone mets) at high risk of fracture	1 Shot Every 6 Months
Reclast (Zolendronate)	Men with osteoporosis	IV Drip Annually

How Long Should I Stay on Zometa, Xgeva, or Prolia?

Every treatment decision is a risk (side effects) vs benefit (disease response) decision. Clearly these drugs offer great benefit for many patients. If taken correctly (dental checkups, daily calcium, daily vitamin D), then the benefit can be significant.

Experts may have different opinions on how long a prostate cancer patient should stay on these treatments. But there is general agreement that it is

possible to be on them for too long. The greatest benefit from these treatments probably occurs in the first year or two. There is some disagreement as to when risk of side effects begins to outweigh the benefits. This is an ongoing discussion that you should have with your medical oncologist, and your nurses. In addition, ask about retesting your bone density after you have taken steps to improve it. It is important to have a way to measure the benefit of any therapy.

Prostate cancer patients live in a world where shared decision making with one's doctors is not only important, but it is encouraged. Understanding your personal risk of osteoporosis is a great place to start. It will help you develop a basic understanding of how to access your medical records, a process you will find is very empowering. We don't accept mental recall or verbal information for other important matters in our lives, such as our finances, our taxes, or our children's report cards. Why do we accept it for personal medical information? ☐

- **Osteoporosis is: A disease, seldom tested for in men, easy to test for, easy to treat, and the leading cause of fracture in men of advanced age**
- **A bone density test is NOT the same as a bone scan**
- **Hormone therapy can cause bone loss**
- **Patients should get a dental checkup before starting Zometa, Reclast, Xgeva, or Prolia**
- **It is recommended that patients take calcium & vitamin D3 while on Reclast, Zometa, Xgeva, or Prolia**
- **Calcium & vitamin D levels can be measured with a blood test**
- **Patients should talk to their medical oncologist about how long they should stay on Zometa, Reclast, Prolia, or Xgeva**

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