

Osteoporosis

Osteoporosis causes weak bones.

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Men on ADT may experience a decrease in bone mass density by 4-13% annually, with significant changes occurring even after just 6 months.

You can prevent osteoporosis through exercise and dietary modifications.

What is Osteoporosis?

Osteoporosis is a disease where your bones become less dense and more porous (holey). As a result, your bones are more fragile and your risk of getting fractures (broken bones) increases. The sites that are most at risk for fractures are the spine, hip and wrist. Osteoporosis is often referred to as a "silent disease" because people develop the disease without experiencing any symptoms. A person's bone mass decreases until their bones are so weak that they can fracture from a sudden strain, bump or fall.

A similar condition is osteopenia. Osteopenia is similar to osteoporosis, except the level of bone loss is less severe. People with osteopenia are at higher risk of developing osteoporosis.

Androgen Deprivation Therapy and Bone

Men with prostate cancer who are not on ADT can already experience bone loss due to the little or lack of testosterone secreted by the testes, and low dietary intake of vitamin D and calcium. However, men with prostate cancer on ADT lose bone mass at a higher rate. Studies have shown that ADT may decrease bone mass density by 4-13% annually. This, combined with bone loss due to ageing can further worsen the situation as significant changes can even occur after just 6 months.

Why you should be concerned

Men with prostate cancer have been found to have a higher rate of osteopenia and osteoporosis than men who do not. Bone loss resulting from ADT increases the risk of fractures exponentially: a 10-15% loss of bone mass can double your risk of fractures. This is extremely important because osteoporosis can affect your quality of life and even survival. Weak bones result in the loss of height and increased risk of fractures. Furthermore, having one fracture increases your risk of future fractures, increased long term care and other complications including bedsores, urinary tract infections, pneumonia, and even death. Maintaining healthy, strong bones is necessary for supporting your muscles and organs and to sit, walk, move and do all the things you love!

Exercise and Dietary Modifications to Prevent Osteoporosis

Exercise can decrease bone loss, increase bone and muscle strength, and improve mobility. It is recommended that your exercise program include a combination of weight bearing aerobic exercise (walking, stair climbing, soccer; any activity that bears your weight) and strength training (weight lifting) for at least 30 minutes a day, 2-4 days a week. Diet modifications include ensuring that you are getting your recommended intake of calcium and vitamin D.

The Prostate Education & Research Centre



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Visit The Prostate Centre on the World Wide Web:

www.prostatecentre.com

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1. Eastham, JA. Bone health in Men Receiving Androgen Deprivation Therapy for Prostate Cancer. *Journal of Urology* 2007;177:17-24.
2. U.S. Department of Health and Human Services. The 2004 Surgeon General's Report on Bone Health and Osteoporosis: What It Means To You. U.S. Department of Health and Human Services, Office of the Surgeon General, 2004.