

Guidelines for the Prevention of Osteoporosis For Men with Prostate Cancer on Hormone Therapy

The average age of men diagnosed with prostate cancer in BC is 69 years. This factor, and the use of long-term hormone therapy (> 6 months) may lead to bone loss. Over time, loss of calcium from the bones increases the risk of developing osteoporosis.

The following guidelines are provided to reduce the risk of bone loss during treatment. If your bone density at the start of treatment indicates that you are at increased risk of osteoporosis you may be advised to use medications in addition to following the guidelines below.

Calcium & Vitamin D:

Calcium and vitamin D are essential for strong bones. Men up to age 70 years are recommended to consume **1000 mg of calcium** daily from all sources, including the amount in the diet and from all supplements. Men over 71 years of age are recommended to consume **1200 mg of calcium** daily from all sources. Since it is possible to get too much calcium, limit all sources of calcium to no more than 2500 mg per day for men between 19-50 years of age and 2000 mg per day for men 51 years and older.

Foods rich in vitamin D or a supplement of **600 IU of vitamin D** daily is recommended for men up to age 70 years and **800 IU of vitamin D** for men over 71 years of age. The upper limit for safe intake of vitamin D is 4000 IU for all adults.

FOOD SOURCES OF CALCIUM

Food	Portion Size	Calcium (mg)
Cheese (Swiss)	50 g (1½ oz)	335
Sardines, with edible bones	85 g (3 oz)	325
Cheese (cheddar, mozzarella)	50 g (1½ oz)	300
Milk (skim, 1% MF, 2% MF or whole)	250 ml (1 cup)	300
Buttermilk, eggnog or chocolate milk	250 ml (1 cup)	300
Fortified rice and soy beverages	250 ml (1 cup)	300
Tofu, firm, prepared with calcium	150 g (¾ cup)	300
Yogurt, plain	175 g (¾ cup)	200-300
Milk powder, instant, dry	80 ml (1/3 cup)	280
Spinach, frozen, boiled	125 ml (½ cup)	145
Cottage cheese, 2% MF	125 ml (1/2 cup)	100
Almonds	60 ml (¼ cup)	95
Figs, dried	3	95
Parmesan cheese, grated	15 ml (1 Tbsp)	55
Orange, raw	1 medium	50

FOOD SOURCES OF VITAMIN D

Food	Portion Size	Vitamin D (IU)
Fish, salmon	85 g (3 oz)	450
Fish, tuna, light, canned in oil	85 g (3 oz)	225
Fish, halibut	85 g (3 oz)	200
Fish, sardines, canned in oil	85 g (3 oz)	150
Fish, tuna, light, canned in water	85 g (3 oz)	150
Milk (skim, 1% MF, 2% MF and whole)	250 ml (1 cup)	100
Fortified rice and soy beverages	250 ml (1 cup)	100
Egg	1 large	50

Source: USDA National Nutrient Database for Standard Reference, Release 24. US Department of Agriculture (2011).

Vitamin and Mineral Supplements:

If you can't meet the recommended amounts with food alone, consider a supplement. Calcium carbonate is the least expensive calcium supplement and is well tolerated by most people when taken with food. The absorption of calcium from supplements is most efficient at doses of 500 mg or less.

Some calcium supplements also include vitamin D (check the label for the exact amount). A standard multivitamin and mineral supplement provides approximately 175 mg of calcium and 400 IU of vitamin D and other nutrients.

Protein:

Adequate protein is required to maintain bone health. Include one of the following protein rich foods at each meal: meat, fish, poultry, beans, lentils, nuts, eggs, milk, yogurt and cheese.

Caffeine and salt:

Excess caffeine and salt can have a negative effect on bone. Caffeine is found in coffee and also tea, chocolate (cocoa) and some soft drinks. For optimal bone health **limit coffee to less than 4 cups per day**.

Foods high in salt generally include processed foods such as canned soups, snack foods, crackers, packaged pastas and sauces. Check the nutrition label on processed foods and **limit salt to less than 2300 mg per day**.

Physical Activity:

Being physically active maintains optimal bone health and decreases the risk of a bone fracture by improving bone mass and increasing muscular strength, coordination and balance and thereby reducing falls. Physical activity that is weight bearing is best, examples include walking, dancing, stair climbing, aerobics, skating and weight lifting.

Smoking:

Smoking is related to poor bone and general health. If you smoke, ask your doctor for assistance to **stop smoking**.

Contact a Registered Dietitian at your cancer treatment centre for more information.

For more information:

Visit the following websites:

HealthlinkBC ('click' the tab on Healthy Living, Healthy Eating and/or Physical Activity)
<http://www.healthlinkbc.ca/>

The Physical Activity Line (PAL)
<http://www.physicalactivityline.com/>

Osteoporosis Canada
www.osteoporosis.ca

Call the following hotlines:

HealthlinkBC
Dial 8-1-1 toll-free in British Columbia to speak with a Registered Dietitian – or email your questions using the above website link.

The Physical Activity Line (PAL)
Dial toll-free 1-877-725-1149 in British Columbia or 604-241-2266 in the Lower Mainland to speak with a Certified Exercise Physiologist.