NUTRITIONAL STRATEGIES TO PREVENT PROSTATE CANCER

Diet is clearly taking the centre stage as both the major cause and the best way to reduce the risk of prostate cancer. In fact, there is so much convincing evidence on the role of diet in prostate cancer that researchers from the Memorial Sloan Kettering Cancer Center went so far as to suggest that prostate cancer may be a nutritional disease. The best treatment for any cancer is prevention, which involves identifying and avoiding known risk factors, along with incorporating healthy lifestyle and dietary habits associated with reducing risk.
Key causative dietary factors include diets rich in animal foods, particularly grilled and broiled meats, saturated fat and dairy, as well as diets low in protective nutrients such as lycopene, selenium, vitamin E, soy isoflavonoids and other dietary phytoestrogens, omega-3 fatty acids (particularly from fish), and cabbage-family vegetables such as broccoli and kale. These dietary factors are known to affect sex hormone levels, detoxification mechanisms and antioxidant status. Here are some key findings from scientific studies:

- Studies conducted by the National Cancer Institute clearly indicate that the higher the intake of animal fat, the greater the risk for advanced prostate cancer.
A great deal of evidence indicates that the risk of prostate cancer is reduced dramatically with higher intakes of the omega-3 fatty acids from fish—eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA).

A study of 42 countries found soy to have a higher protective value against prostate cancer than any other dietary factor.

Ground flax seeds appear to be quite helpful both in prevention and treatment of prostate cancer. In a study of men with prostate cancer conducted at the Duke University Medical Center, a low-fat diet (less than 20 per cent of total calories) supplemented with 30 grams of ground flax seed (roughly two tablespoons) slowed the growth rate of cancer cells and increased the death rate of cancer cells.

A 32 per cent decrease in the incidence of prostate cancer was observed among 14,564 subjects receiving vitamin E compared with the 14,569 not receiving it. Mortality from prostate cancer was 41 per cent lower among men receiving vitamin E.

One of the most important anticancer nutrients is lycopene—a carotene that provides the red colour to tomato products and watermelon. In a study conducted by Harvard researchers, men who had the greatest amounts of lycopene (6.5 milligrams per day) in their diet showed a 21 per cent decreased risk of prostate cancer compared with those eating the least. In a study of patients with existing prostate cancer, lycopene supplementation (30 mg per day) was shown to shrink prostate tumours and reduce levels of prostate-specific antigen (PSA), a protein the prostate produces that is found to be in high levels in men with prostate cancer.

**Three key nutritional supplements**

In addition to diet and lifestyle, three supplements are essential in a prostate cancer prevention plan:

1. A high-potency multiple vitamin and mineral with antioxidant nutrients such as vitamins A, C and E.
2. A high quality “greens” drink.
3. Long-chain omega-3 fatty acids.

A high-potency multiple vitamin and mineral provides optimal levels of all essential vitamins and minerals. Such a product will not be a “one-a-day,” as it is physically impossible to get everything into just one pill. A high-potency multi-vitamin will usually require two or three tablets to be taken twice daily.

Greens drinks refer to commercially available products containing dehydrated barley grass, wheatgrass or algae sources such as chlorella or spirulina—green super foods that are power-packed full of cancer-fighting phytochemicals, especially carotenes and chlorophyll. These dehydrated products are more convenient than trying to sprout and grow your own source of greens. An added advantage is that they tend to taste better.

Long-chain omega-3 fatty acids refer to the omega-3 fats eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA) found in fish oil that play a central role in
cell membrane structure and function. Deficiency of these fats is associated with an increased risk for prostate cancer and about 60 other conditions, including heart disease, stroke, high blood pressure, skin diseases and diabetes. Adding a fish oil supplement to your daily routine provides extra insurance that you are getting sufficient levels of these important oils. For prevention, take enough of the product to provide 200 to 400 mg of EPA and 100 to 200 mg of DHA on a daily basis.

**Flak about flax**

While the data is clear that increased fish oil consumption offers protection against prostate cancer, there has been some controversy about recommending flax seed oil to men based upon some misunderstanding of research by some experts. First, there have been studies suggesting an association between alpha-linolenic acid (ALA) and prostate cancer. But upon closer examination of these studies, there appears to be little basis for this recommendation. Here are the key points:

- In some studies, cited ALA intake was used simply as a marker for meat intake. In the absence of consuming vegetable sources of ALA such as flax seed or canola oil, the primary dietary source is from meat. ALA is a marker for meat intake because the greater the meat intake, the higher the tissue ALA level.
- A study from Uruguay indicated vegetable sources of ALA are equally damaging; however, it is not clear how the ALA was derived (undamaged vs. damaged sources). ALA is easily damaged by heat; either the incorporation of damaged ALA into the cell membrane or a lack of sufficient dietary antioxidants can cause it to be more susceptible to oxidative damage—a trigger for cancer development.
- Population-based studies indicate that diets higher in ALA are protective against prostate cancer.


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