

## PROSTATE CANCER PREVENTION

The prostate is a gland found only in men, so only men get prostate cancer. The prostate is about the size of a walnut. It is just below the bladder and in front of the rectum. The tube that carries urine (the *urethra*) runs through the prostate.

Prostate cancer is the most common type of cancer found in American men, other than skin cancer. The American Cancer Society estimates that there will be about 220,900 new cases of prostate cancer in the United States in the year 2003. About 28,900 men will die of this disease. Prostate cancer is the second leading cause of cancer death in men, exceeded only by lung cancer. While 1 man in 6 will get prostate cancer during his lifetime, only 1 man in 32 will die of this disease. The death rate for prostate cancer is going down. And the disease is being found earlier as well. African-American men are more likely to have prostate cancer and to die of it than are white or Asian men. The reasons for this are still not known.

### PROSTATE CANCER RISK FACTORS

A **risk factor** is anything that increases a person's chance of getting a disease. Different cancers have different risk factors. For example, unprotected exposure to strong sunlight is a risk factor for skin cancer. Smoking is a risk factor for cancers of the lung, mouth, larynx, bladder, kidney, and several other organs.

But having a risk factor, or even several, does not necessarily mean that a person will get the disease. Some men with one or more prostate cancer risk factors never develop the disease, while some men with prostate cancer have no apparent risk factors. Even when a man with prostate cancer has a risk factor, there is no way to prove that it actually caused her cancer.

The following is a list of known and suspected risk factors for prostate cancer:

**Age:** The chance of having prostate cancer increases rapidly after age 50. More than 70% of all prostate cancers are diagnosed in men over the age of 65. It is still unclear why this increase with age occurs for prostate cancer.

**Race:** Prostate cancer occurs almost 70% more often in African-American men as it does in white American men. Compared with men of other races, African-American men are more likely to be diagnosed at an advanced stage. African-American men are twice as likely to die of prostate cancer as white men. The reasons for these racial differences are not known.

**Nationality:** Prostate cancer is most common in North America and northwestern Europe. It is less common in Asia, Africa, Central America, and South America.

**Diet:** Men who eat a lot of red meat or who have a lot of high-fat dairy products in their diet appear to have a greater chance of developing prostate cancer. These men also tend to eat fewer fruits and vegetables. Doctors are not sure which of these factors is responsible for increasing risk. Some studies have suggested that men who have very high consumption of calcium (through diets or supplements) may have a higher risk of developing advanced prostate cancer. This is thought to be tied to a depletion of **Vitamin D**.

Several substances, including **lycopenes** (found in high levels in some fruits and vegetables, such as tomatoes, pink grapefruit, and watermelon), vitamin D, vitamin E, and the minerals selenium and boron may lower prostate cancer risk.

**Physical Inactivity:** Regular physical activity and maintaining a healthy weight may help reduce prostate cancer risk.

**Family History:** Prostate cancer seems to run in some families, suggesting an inherited or genetic factor. Having a father or brother with prostate cancer doubles a man's risk of developing this disease. The risk is even higher for men with several affected relatives, particularly if their relatives were young at the time of diagnosis. A family history of breast cancer in female relatives also increases risk. Scientists have identified several inherited genes that seem to increase prostate cancer risk, but they probably account for only a small fraction of cases.

**Vasectomy:** Some studies have suggested that men who have had a vasectomy (surgery to make men infertile) may have a slightly increased risk for prostate cancer, but this link has not been consistently found. Research to resolve this issue is still in progress. However, **most recent studies have not found any increased risk among men who have had this operation, and fear of an increased risk of developing prostate cancer should not be a reason to avoid a vasectomy.**

## Steps to Prevent Prostate Cancer

While no one is sure how to completely prevent Prostate Cancer, the following steps are recommended based on current clinical research:

### DIET SUGGESTIONS

- **Eat A Low Fat Diet.** The best choice is the Mediterranean Diet, which concentrates on whole foods, fruits, vegetables, beans, seeds and nuts with olive oil as the main cooking oil. Ask your caregiver for more information.
- Juice with raw fruits and vegetables at least twice a week.
- Add garlic and ginger to foods for flavor and antioxidant activity.
- Eat phytonutrient-rich foods such as broccoli, cauliflower, Brussels sprouts and kale. All contain indole-3-carbinol, which promotes prostate health.
- Drink green tea daily.

**PROSTATE CANCER PREVENTION Cont'd**

- Eat boron-rich foods, such as plums, grapes, prunes, avocados, and nuts such as almonds and peanuts. In studies, men who ate the greatest amount of boron were 64% less likely to develop prostate cancer compared to men who consumed the least amount of boron.
- Limit your consumption of dairy products and calcium. Calcium intake greater than 1200mg per day can significantly increase the risk of prostate cancer due to Vitamin D depletion. This includes milk.
- Increase your intake of healthy fats through fish oil-rich fish such as salmon, cod and haddock, as well as monounsaturated extra-virgin olive oil.
- **Eat tomatoes, grapefruit, and watermelon and strawberries. These foods are rich in a substance (lycopene) that helps prevent damage to DNA and prostate cancer risk.**
- Avoid eating well-done, burned or charred meats.
- Limit your intake of alcohol to no more than one or two ounces a day.
  
- **Exercise Regularly:** Three times a week at the minimum.
  
- **Take Anti-Oxidant Vitamins C, D and E.** Anti-oxidants help the body clear free-radicals which are thought to promote cancer formation. Vitamin E should be the 'mixed' form with gamma-tocopherol and tocotrienols, not just alpha-tocopherol. You should discuss the proper doses with your doctor.
  
- **Consider taking Selenium.** Low plasma selenium is associated with a four to fivefold increased risk of Prostate Cancer. In addition, levels of plasma selenium also decrease with age, resulting in middle-aged to older men being at a higher risk for low selenium levels.
  
- **Consider taking Indole-3-Carbinol** 200mg per day – this may help convert cancer causing types of estrogens into less dangerous forms. Recent research has shown that an increase in estrogen levels is a significant risk factor for Prostate Cancer development.

**CONSULT YOUR HEALTH CARE PROVIDER FOR A PROSTATE CANCER PREVENTION PROGRAM TAILORED TO YOUR NEEDS.**