



Prevention

Prostate Cancer Awareness Month September 2017

PROSTATE CANCER AWARENESS MONTH

PROSTATE CANCER: Thinking about screening

Prostate cancer is the second most common cancer (excluding skin cancer), behind only lung cancer. The American Cancer Society estimates that about 160,000 men will be diagnosed with prostate cancer in 2017. The lifetime risk of prostate cancer in men is 1 in 7 (14%). It is the fifth leading cause of cancer deaths in the US. It is expected to cause about 27,000 deaths in 2017.

The death rate has been declining, but because the population is aging and prostate cancer is strongly correlated with older age, total deaths are not falling currently. We don't know how much screening and more effective treatments have each contributed to the declining death rate.

African-American men and men with a close relative with prostate cancer (a father, brother or son) are at higher risk. Men who live in Northern European nations that eat lots of red meat have higher prostate cancer death rates. Diets containing more of some nutrients, such as Vitamin E, selenium and the red protein in tomatoes, lycopene, have lower prostate cancer death rates. Unfortunately, trials testing pills containing those substances have found no benefit.

SCREENING FOR PROSTATE CANCER

Most men's prostates eventually develop slow-growing cancers as they age, but it is lethal in only 3% of men. Prostate cancers can be killers, but the great majority are harmless.

Unfortunately, curative surgery and radiation treatments have side effects that affect men's quality of life. Within a few years after either surgery or radiation therapy, most men become unable to have erections (erectile dysfunction, or ED) and, depending on whether they choose surgery or radiation, many have long term urine leakage or bowel problems, mostly bleeding.

It is difficult to design an effective screening program that prolongs men's life for a common cancer that is usually not dangerous and treatments with frequent side effects that harm their quality of life. Two major screening trials of the prostate specific antigen, or PSA, blood test in the US and Europe have not found a decrease in overall mortality. However, the European study, which screened less often than the annual screening in the US study, found a reduction of deaths from prostate cancer. A large British study, the ProtecT trial, studied both screening and cancer treatment. After 10 years, the treatment trial found no difference in survival between men treated with surgery or radiation but may find a benefit after 15 years. The results of the screening trial have not been reported.

Because trials have not shown that PSA screening prolongs life and evidence that treatment causes long-lasting sexual, urinary or bowel symptoms for many men, the US Preventive Services Task Force, the government body tasked with evaluating cancer screening, gave it a D rating in 2012. A D rating is a recommendation against screening because harms are more likely than help. However, more recently, the Task Force has proposed a revision, giving a C rating that recommends discussion of PSA screening for men aged 50-69. The recommendation acknowledges that more men will likely be harmed than helped by screening, because of false positive PSA results (indicating cancer when there is none), overdiagnosis (finding cancers that would not cause harm) and treatment side effects. However, some men may hear that evidence and still choose screening, because they fear cancer more than the downsides of screening. That approach emphasizes patient-centered care: patients should make decisions based on their circumstances and preferences, rather than doctors' idea of what is best for most men.

While there is debate about the value of screening overall, it is agreed that men older than 75 usually should not be screened because they are unlikely to live long enough to benefit from screening; they would just get side effects from treatment. Unfortunately, many older men are still getting screened. Screening should not start before age 50 for most men. We just do not know enough to say whether men at high risk, African Americans or men whose fathers or brothers have prostate cancer, should be screened. Some would start screening them at 45 or even 40 because of their higher risk.

It is a complicated decision. Any patient who thinks he might want to be screened should talk to his doctor about the pros and cons.

Role of Diet in Prostate Cancer

The exact role of diet in prostate cancer is not clear, but several factors have been studied

Some studies have suggested that men who consume a lot of calcium (through food or supplements) may have a higher risk of developing prostate cancer. Dairy foods (which are often high in calcium) might also increase risk. But most studies have not found such a link with the levels of calcium found in the average diet, and it's important to note that calcium is known to have other important health benefits.

Men who eat a lot of red meat or high-fat dairy products appear to have a slightly higher chance of getting prostate cancer. These men tend to eat fewer fruits and vegetables. Doctors aren't sure which of these factors is responsible for raising the risk.

Lycopene is a powerful antioxidant found in tomatoes. It may help prevent prostate cancer as well as reduce tumor growth among men with prostate cancer. In a review of 11 studies published in the *Journal of Nutritional Science and Vitaminology*, researchers found that men who ate more tomatoes and tomato-based products, both raw and cooked, were less likely to develop prostate cancer. But because lycopene is tightly bound to cell walls, our bodies have a difficult time extracting it from raw tomatoes. Cooked or pureed tomato products may be better options.

Broccoli is a vegetable that contains many complex compounds that may help protect some people from cancer. According to the American Cancer Society, some studies suggest there's a link between the amount of cruciferous vegetables you eat and your prostate cancer risk. The reasons why are still unclear. But researchers propose that one of the phytochemicals found in these vegetables, called sulforaphane, selectively targets and kills cancer cells while leaving normal prostate cells healthy and unaffected.

Green tea is a large component of the Asian diet. It's been consumed for thousands of years. It's not clear if green tea is the reason why prostate cancer rates in Asia are so much lower than in the United States. However, components of green tea are being studied for their effects on health.

Legumes such as beans, peanuts, and lentils all contain biologically active plant compounds known as phytoestrogens. Isoflavones are one such phytoestrogen. They may contain cancer-fighting properties. This could suppress tumor growth in prostate cancer cells.

Much like red wine or green tea, pomegranate is a rich source of antioxidants. It's been touted as a "miracle fruit" in preventing chronic diseases related to oxidative stress. Scientists think the antioxidant found in pomegranate works in a "seek and destroy" method, exclusively targeting the prostate cancer cells and not the healthy cells. Studies have found that pomegranate juice and extract, hinder the production of different prostate cancer cells in the laboratory.



Author: Michael P. Osborne MD, MSurg, FRCS, FACS President, **Strang Cancer Prevention Institute**

SOURCES: James Talcott MD, SM and the US Preventive Services Task Force, American Cancer Society

For further information visit www.strang.org



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Strang Cancer Prevention Institute

575 Madison Avenue 10th Floor

New York, NY 10022

Tel: (212) 501-2111 www.strang.org

Editor

Merle K. Barash MA AEd, MA Psya

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