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## **Green Tea Prevents Prostate Cancer in High-Risk Men**

by **Serena Gordon** | **Forbes** | **04.20.2005**

A supplement containing antioxidants from green tea was 90 percent effective in preventing prostate cancer in men at high risk for the disease.

That's the conclusion of an Italian study that found after a year of taking green tea catechins, only one man in a group of 32 who were at higher risk of prostate cancer actually developed the disease, while nine men in a group of 30 high-risk men who took a placebo developed prostate cancer.

"To our knowledge, this is the first study showing that green tea catechins (GTC) have potent chemoprevention activity for human prostate cancer," said study author Saverio Bettuzzi, an associate professor of biochemistry in the School of Medicine at the University of Parma in Italy.

Findings from the study were presented April 20 at the American Association for Cancer Research annual meeting, in Anaheim, Calif.

Other than skin cancer, prostate cancer is the most common cancer affecting men. More than 230,000 American men are diagnosed with this disease each year, according to the American Cancer Society. Since many prostate cancers are found in their early stages, about 99 percent of those diagnosed can expect to live at least five years, while up to 92 percent survive for at least 10 years after their diagnosis. However, prostate cancer can be deadly. The disease claims the lives of more than 30,000 men in the United States annually, making it the second largest cancer killer in men.

Bettuzzi explained that while other studies, including his own previous work, had shown that green tea could inhibit prostate cancer cell growth in laboratory models, the researchers wanted to know if it would work in humans.

They recruited 62 men at high risk of developing prostate cancer because they already had precancerous lesions, which often turn into cancer within a year.

The men were between the ages of 45 and 75. The researchers excluded vegetarians because they may already have a lower risk of developing prostate cancer, men who already consumed green tea, and men taking antioxidant supplements or hormone therapy.

Thirty two of the men were asked to take a 200-milligram pill containing green tea catechins three times daily for a year; the other 30 men were given a placebo.

Biopsies were conducted at six months, and then again a year later.

Remarkably, only one man in the treatment group was diagnosed with prostate cancer, while nine men in the control group developed the disease.

"A projection of our data suggests that up to 90 percent of chemoprevention efficacy could be obtained by GTC administration in men prone to developing prostate cancer such as the elderly, African-Americans and those with a family history of prostate cancer," Bettuzzi said.

However, Bettuzzi isn't recommending that men start treating themselves with green tea or green tea supplements. He said to consume an amount equivalent to that used in the study, you would have to drink 12 to 15 cups of tea daily, and that while supplements are commercially available, their quality cannot be assured and they may contain caffeine, or more alarmingly, pesticides or other contaminants.

"This is a very interesting observation that deserves to be studied further," said Dr. Jay Brooks, chairman of hematology and oncology at the Ochsner Clinic Foundation Hospital in New Orleans. But, he added, "Personally, I am not recommending that my patients do this."

Bettuzzi also said his findings need to be confirmed in a larger study.

In the meantime, Brooks said that if you're concerned about prostate cancer, be sure you maintain a healthy body weight because obesity increases your risk. And, he said, make sure you go to your doctor for proper prostate cancer screening.

In other prostate cancer news presented at the same meeting, researchers from the Fox Chase Cancer Center in Philadelphia announced that the trace mineral selenium, in combination with other cancer-fighting agents, may make an even more powerful therapy. When a selenium metabolite, dubbed MSA, was combined with a chemotherapy known as TRAIL, more cancer cells underwent self-inflicted cell death (apoptosis). TRAIL alone can induce apoptosis in malignant cells, but some cancer cells are resistant to this therapy.

"The combination of TRAIL and MSA may be a novel strategy for the development of innovative therapeutic modalities targeting apoptosis-resistant forms of prostate cancer," said lead researcher Dr. Vladimir Kolenko.

#### **More Information**

For more information on tea's potential cancer prevention abilities, go to the National Cancer Institute.