

## Does Green Tea Reduce Prostate Health Risk?

Green tea keeps hitting it out of the park. Two weeks ago I wrote about the incredible benefits of green tea in regard to having positive effects on abnormal cellular growth of the lymphocytes/white cells. A study<sup>1</sup> has just been published in the journal *Cancer Prevention Research* on the beneficial effects green tea offers in regard to abnormal cellular growth of the prostate. Dr. James Cardelli and his colleagues at LSU Health Sciences in Louisiana recruited 26 men between the ages of 41 to 72 who were diagnosed with abnormal cellular growth of the prostate (via biopsy) and were scheduled to have a radical prostatectomy (removal of the entire prostate). These patients were given a special formulation of green tea extract, consuming approximately 5.2 grams (5,200 mgs) of green tea polyphenols that contained approximately 3.2 grams (3,200 mgs) of EGCG along with other polyphenols. The patients consumed this on a daily basis for just over a month (ranging anywhere from 12 to 73 days) prior to their operation.

At the start of the study, blood was drawn to measure certain markers indicative of abnormal cellular growth, including prostate specific antigen (PSA). The results at the end of the study showed that all of these blood markers for abnormal cellular growth decreased significantly, including those of five patients who actually had improvement in liver function tests. Some patients showed more than a 30% reduction in some of the abnormal markers. Dr. Cardelli indicated that the results demonstrated a significant reduction in serum levels of PSA, HGF (hepatocyte growth factor) and VEGF (vascular endothelial growth factor) in men with abnormal cellular growth of the prostate after a brief treatment with EGCG with no elevation in liver enzymes. This suggested that there might be a place for green tea extract in the promotion of healthy cellular growth of the prostate. It was noted that in a separate study out of Italy, green tea polyphenols reduced the risk of developing an abnormality in the prostate that can lead to abnormal cellular growth of the prostate. Dr. William Nelson, professor of oncology, urology and pharmacology at Johns Hopkins, added, "This trial is provocative enough to consider a more substantial randomized trial."

I would like to point out that the amount of EGCG utilized in this study could not reasonably be consumed from drinking green tea. Consuming supplements with a high standardized level of polyphenols and EGCG is the only way possible to achieve these levels. I strongly recommend you consume several cups of organic green tea per day along with 500 to 1,000 mg of standardized green tea with at least 45% EGCG and 90% or greater polyphenols. The Nutraceutical Sciences Institute® (NSI®) brand has the best value with 500 mg standardized green tea capsules providing these high levels of EGCG and polyphenols.

Speaking of clinical trials, you'll be happy to know that the government will be conducting a large study on two well-proven, safe and beneficial dietary supplements, vitamin D and fish oil, to determine whether either of these nutrients can lower a healthy person's risk of developing abnormal cellular growth and poor cardiovascular health. The study, which will start later this year, will enroll about 20,000 people with no history of abnormal cellular growth or poor cardiovascular health. Participants will be randomly assigned to receive either fish oil, vitamin D, both nutrients or placebo over a five-year period. The daily dose of vitamin D will be about 2,000 IU. They will be using the most powerful form of vitamin D known as D3 cholecalciferol. The fish oil dose will be approximately 1 gram a day, which is estimated to be anywhere from five to ten times what the average American consumed. This trial will be conducted by the National Cancer Institute and the National Heart, Lung and Blood Institute and some other federal agencies. Researchers also plan to test whether these nutrients can help with poor memory, poor mood, elevated blood sugar and other medical concerns.

There were two recent articles discussing the benefits of omega 3 polyunsaturated fatty acid supplementation in regard to cardiovascular function and overall health. In the first article<sup>2</sup>, which was published last month in the journal *Cardiovascular Research*, researchers noted that clinical studies suggest high dietary intake of omega-3 fatty acids found in fish oil may lower in the incidence of poor heart function. The underlying mechanism for this is complex and not clearly defined. There is clear data that fish oil supplementation lowers plasma triglyceride levels, although more recent work has demonstrated effects supporting the body's normal inflammatory response, including some regarding inflammatory proteins in the blood. The second article<sup>3</sup>, published in the *American Journal of Health-System Pharmacy*, noted that omega-3 polyunsaturated fatty acids appear to have effects that support the body's normal inflammatory response which seem to help with healthy joint function, heart function, bowel function and abnormal cellular growth.

Another recently published study<sup>4</sup> indicates that millions of people living in nearly 600 neighborhoods across the country are breathing concentrations of toxic air pollutants that put them at a much greater risk of experiencing abnormal cellular growth, according to new data from the Environmental Protection Agency. In fact the data is quite alarming. The increased risk was as high as over 3,300% compared to normal and over 550 times comparing lowest to highest. The EPA commented the risks are local: "Air toxic risks are local. They are a function of the sources nearest to you," said Dave Guinnup, who leads the groups that perform the risk assessments for toxic air pollutants at EPA. "If you are out in the Rocky Mountains, you are going to be closer to 2 in a million. If you are in an industrial area with a lot of traffic, you are going to be closer to 1,100 in 1 million." I can tell you our Chief Operations Architect has a home in Lexington, NC near our NC facility away from major traffic and industrial factories and it is shocking to see how his air prefilter on the Winix 9000 looks after just a few months of use. The even more amazing part is he spent over \$2,000 on two AprilAire electronic air cleaners on the central HVAC and uses the best air duct return filters sold by 3M and yet his portable Winix 9000s, Rabbit Airs and Blue Airs still collect massive amounts of air pollution.

I recommend you choose one of these three excellent air filters and place it in every room of your office and home that you spend in more than one hour per day. The bedroom would be the most important room. Let the air filters run on high 24 x 7 and make sure to clean the prefilters and charcoal every few months, and replace the HEPA portion every six months. The Blue Air unit comes with a free bonus filter mail-in rebate. The 610B Model also includes a 2nd bonus filter in the box, so if you buy one, you get two bonus filters free with one being by mail from the manufacturer. These units are far superior to the ones sold at mass market big box stores. I must also tell you that if you bought a Sharper Image unit, I would throw it away; they are virtually useless as proven by *Consumer Reports* testing. Only buy units like the three I mentioned with proven CADR ratings in the 180 - 400 range, the higher the more effective. I would also urge you to read some of the customer reviews on the units. I have included two below on the Winix Plasma 9000.

*"I bought my unit because I have found that I have allergies since moving to Texas. My eyes were watery & I was sneezing constantly. The unit works great! It's very quiet. Sometimes I can hardly believe it has been turned on. I can finally breathe & it's quite wonderful. I am able to sleep comfortably.. so I am now at peace... thnx so very much.. it was a great price & well worth it! I am so pleased"*

By cocoatreat from Grapevine, TX

*"The Winix 9000 exceeded expectations regarding quiet operation, build quality and effectiveness at removing odors. I live in a "sick" apartment building with a persistent*

*musty odor, and despite running 2 BlueAir AV600's with SmokeStop filters and an IQ air HealthPro Plus, the odor persisted and I had runny and congested sinuses. After running the Winix Plasma 9000 for two days, the odor is gone and I can finally breathe. The technology integrated in the Winix is vastly superior to that in traditional hepa/carbon purifiers like the BlueAir and IQ Air. The results achieved are infinitely better. The Winix 9000 is truly a miraculous product."*

By toddk from Los Angeles, CA

I am extremely happy to see that the government will be studying vitamin D and fish oil in a large double-blinded trial. Although the results will apparently take five years to be known, I am confident that the benefits of these two nutrients will be clearly defined. There have been too many studies in the medical literature to think otherwise. I recommend that the average adult takes 2,000 IU to 4,000 IU of vitamin D3 every day. Nutraceutical Sciences Institute (NSI) offers it in convenient capsule, drop and softgel forms with 300 capsules of the 2,000 IU dose costing less than \$10. We've also recently released a 4,000 IU, 2,000 IU and 1,000 D3 soft gel for those of you who prefer soft gels over capsules.

When it comes to fish oil, look no further than NSI Mega EFA. Each 2-capsule serving contains over 2,100 mgs of fish oil, providing 1,200 mg of molecularly distilled EPA and DHA, the most active form of the omega-3 family. Mega EFA is our best selling product on Vitacost. For those of you who prefer liquid, we offer a purified omega-3 EPA and DHA with each 2-teaspoon serving containing almost 2,600mg of EPA and DHA. NSI also offers multiple fish oil products for your preference and convenience. And don't forget the Synergy line of products which contains excellent doses of vitamin D3, green tea and, in many cases, fish oil.

1. McLarty J, Bigelow J, Smith M, et al., **Tea Polyphenols Decrease Serum Levels of Prostate-Specific Antigen, Hepatocyte Growth Factor, and Vascular Endothelial Growth Factor in Prostate Cancer Patients and Inhibit Production of Hepatocyte Growth Factor and Vascular Endothelial Growth Factor In vitro**, *Cancer Prevention Research*, Published online June 19, 2009.
2. Duda MK, O'Shea KM and Stanley WC, **Omega-3 polyunsaturated fatty acid supplementation for the treatment of heart failure: mechanisms and clinical potential**, *Cardiovascular Research*, Published online on June 20, 2009.
3. Fetterman JW and Zdanowicz MM, **Therapeutic potential of n-3 polyunsaturated fatty acids in disease**, *American Journal of Health- System Pharmacy*, July 2009, Pp 1,169–1,179.
4. EPA National-Scale Air Toxics Assessment (NATA): <http://www.epa.gov/nata2002>

**By Dr. Allen S. Josephs**