

Green tea and prostate cancer

Green tea affects multiple cancer growth pathways. A recent study looked at its effect in prostate cancer. 26 men who had positive biopsies for prostate cancer were given a green tea supplement, Polyphenon E, every day until they underwent surgery to remove the prostate (radical prostatectomy). Researchers analyzed several important cancer-related biochemical markers in the blood of these patients before they began the green tea and at the time of surgery. They found that several markers associated with worse outcomes in prostate cancer decreased significantly. These included hepatocyte growth factor (HGF), which is involved in cancer growth and metastasis, vascular endothelial growth factor (VEGF), which is associated with angiogenesis or the growth of blood vessels to support tumor; insulin-like growth factor-1 (IGF-1), associated with faster tumor growth; and prostate-specific antigen (PSA), a marker used clinically to track the growth of prostate cancer. There was no indication that green tea had any bad effects on the liver; in fact, indicators of liver damage decreased significantly. The researchers also confirmed with laboratory tests that one of the compounds in green tea, EGCG, was able to lower HGF and VEGF in cancer-associated cells. These results suggest that green tea may have a role in treating or preventing prostate cancer, and that larger trials using green tea are needed.

McLarty J 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 Prev Res (Phila Pa)*. 2009 Jul;2(7):673-82.

To Summarize: A green tea supplement improved PSA levels as well as several other biochemical cancer markers in recently diagnosed prostate cancer patients.