

Omega-3 and Prostate Cancer

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Prostate cancer is a form of cancer that develops in the prostate, a gland in the male reproductive system. Most prostate cancers are slow growing; however, there are cases of aggressive prostate cancers. The cancer cells may metastasize (spread) from the prostate to other parts of the body, particularly the bones and lymph nodes. Prostate cancer may cause difficulty urinating, urinary retention, problems during sexual intercourse, or erectile dysfunction. Other symptoms can potentially develop during later stages of the disease such as fatigue, nausea, weakness, back pain, swollen lymph nodes, discomfort in the perineum, hip pain, or weight loss. Blood may be present in the urine. Most prostatic cancers are detected in asymptomatic men who have an elevated PSA (Prostate Specific Antigen) level or a nodular or enlarged prostate at the time of examination.

Omega-3 refers to a group or "family" of unsaturated fatty acids. The first fatty acid in this group is named alpha linolenic acid or just linolenic acid, and sometimes it is just called omega-3. Linolenic acid cannot be made in the body and therefore, it is classified as an essential fatty acid and must be obtained from either the diet or in supplement form. The other two fatty acids in the omega-3 family are named eicosapentaenoic acid (EPA) and docosahexaenoic acid (DHA). The body can manufacture EPA and DHA by conversions from linolenic acid. Flaxseed, chia, rapeseed, soybeans, alfalfa, and walnuts contain omega-3 fatty acids. Cold water fish and wild game also are sources of omega-3 fatty acids.

A recent study published in the American Journal of Epidemiology investigated the relationship between fatty acids and the risk of prostate cancer. The study included over 3,400 men between the ages of 55 and 84 years. Researchers collected blood samples from each of the participants to determine levels fatty acids, which included omega-3, omega-6 and trans-fatty acid. The men completed a follow-up after seven years to determine how many men had been diagnosed with prostate cancer during the course of the study. The results revealed that none of the fatty acids appear to be associated with low-grade prostate cancer risk. However, it was found that DHA (omega-3) was positively associated with high-grade (aggressive) prostate cancer. Omega-6 and trans-fatty acids actually appear to be somewhat protective against the development of prostate cancer. These findings were very unexpected and suggest that the effect of nutrition on the risk of cancer is more complex than researchers had previously thought. Researchers note, however, that the beneficial effects of eating fish to prevent heart disease still outweigh the potential risk of developing prostate cancer.¹

1 Brasky TM, Till C, White E, et al. Serum Phospholipid Fatty Acids and Prostate Cancer Risk: Results From the Prostate Cancer Prevention Trial. Am J Epidemiol. Apr2011