



**For Immediate Release**

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**Phytosterols from Plant Sources, Like Peanuts,  
Shown to Slow Prostate Cancer Growth in Mice**

December 19, 2001, Albany, GA -- Phytosterols that occur naturally in plant sources, such as peanuts, beans, olive oil and peanut oil, appear to reduce prostate tumor growth by over 40 percent and cut the occurrence of cancer spread to other parts of the body, like lymph nodes and lungs, by almost 50 percent. This research comes from the nutrition laboratory at the University of Buffalo in Buffalo, New York, and can be found in the December issue of the *European Journal of Cancer Prevention*.

This study is significant because, for the first time, the effect of phytosterols on human prostate cancer cell growth and metastasis in animals is being reported. Simply stated, phytosterols are natural chemicals found in plants. Three common forms of phytosterols are beta-sitosterol, campesterol, and stigmasterol and are found in high concentrations in some plant oils, seeds and legumes, such as peanuts. The most common of these, beta-sitosterol (SIT), has been shown to inhibit cancer growth, as well as to protect against heart disease. SIT may offer protection from colon, prostate and breast cancer, all of which tend to occur at higher rates in Americans than in other populations.

Atif Awad, PhD, RD, co-investigator of the study and professor of nutrition at the State University of New York at Buffalo, said, "These studies demonstrate for the first time that phytosterols that exist naturally in our diet, in foods like peanuts and beans, can protect against prostate cancer." In the study, special SCID mice (mice that can accept tissue from other species, such as human tissue) were fed one of two experimental diets. One diet was supplemented with phytosterols (from plant sources) and the other diet was supplemented with cholesterol (from animal sources). The phytosterol-rich diet was designed to simulate the Asian diet, while the cholesterol-rich diet was designed to simulate the Western diet.

The findings seem to support the epidemiological evidence pointing to an association between the cholesterol-rich diets of Western men and higher levels of prostate cancer compared with Asian men. In addition, the phytosterol-rich diets of Asian men may contribute to the lower incidence of prostate cancer and may even help prevent the disease. Western culture diets are typically high in cholesterol and low in phytosterols, while Asian diets are typically low in cholesterol and higher in phytosterols.

Phytosterols are already used widely in Europe for their benefits to health. Dr. Awad notes that phytosterols are used to treat enlarged prostate, and are known to lower the risk of cardiovascular disease by interfering with cholesterol absorption from the gut.

Peanuts and peanut butter, staples in most American diets, contain these beneficial phytosterols. Past research at the State University of New York at Buffalo examined the phytosterol content of several peanut products and showed that B-sitosterol (SIT) was most prominent. To get 50 mg SIT, you could snack on 1.2 ounces of roasted peanuts, spread 1.3 ounces of regular peanut butter (about 2 heaping tablespoons) on your toast, or use 1 ounce of peanut oil while cooking.

Many food companies have started adding different plant sterols to foods, such as margarines and salad dressings, to lower cholesterol in the population. Advertisements encourage consumers to eat three servings per day of these fortified foods to lower cholesterol by 10-15%. Identifying peanuts and its products such as peanut oil, peanut butter and peanut flour as sources of phytosterols may provide health benefits for many Americans.

The Peanut Institute is a non-profit organization that supports nutrition research and develops educational programs to encourage healthful lifestyles. Learn more about peanuts and health at <http://www.peanut-institute.org>

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