



**For Immediate Release**

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**PEANUTS CONTAIN A PHYTOSTEROL THOUGHT TO  
INHIBIT CANCER AND HELP THE HEART**

June 29, 2000, Arlington, VA -- A phytosterol, beta-sitosterol (SIT), which has been shown to inhibit cancer growth, as well as to protect against heart disease, has been identified in peanuts and peanut products. 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. This exciting new research can be found in the latest issue (Vol.36, No. 2) of *Nutrition and Cancer*.

Simply stated, phytosterols are natural chemicals found in plants. The most 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.

Researchers at the State University of New York at Buffalo examined the SIT content of several peanut products. They found that snack peanuts contain 65 mg SIT/100 gm and regular peanut butter contains 135 mg SIT/100 gm. Peanut flour and peanut oil contain about 46 mg SIT/100 gm and 190 mg SIT/100 gm, respectively, and are also good sources of SIT. In fact, refined peanut oil contains 38% more protective SIT than refined (pure) olive oil.

Dr. Atif Awad, co-investigator of the study and professor of nutrition at the State University of New York at Buffalo said, "Studies from our laboratory and others suggest that plant sterol consumption offers protection from colon, breast and prostate cancer. Therefore, identifying peanuts and its products such as oil, butter and flour as good sources of SIT may provide major health benefits for many Americans."

**Phytosterols and the Cancer Connection**

As plant components, phytosterols protect against cancer by several means. These include inhibiting cell division, stimulating tumor cells death and modifying some of the hormones that are essential to tumor growth.

In study recently published in *Anticancer Research*, mice with human cancer tumors were fed either a phytosterol diet or a cholesterol diet. Tumor size in animals fed the phytosterols was 33% smaller and had 20% fewer shifts of cancer cells to lymph nodes and lungs than in the cholesterol diet group. The article concludes, "Phytosterols, which can be easily incorporated into our diet, may offer a relatively simple and practical means for retarding growth and metastases of breast cancer cells."

Peanuts also contain the plant chemical resveratrol, which has been associated with reduced cardiovascular disease and reduced cancer risk. Resveratrol was first known for its presence in

red wine, and may be one of the compounds responsible for the health benefits of red wine consumption.

### **Phytosterols and the Heart Disease Connection**

Traditionally, scientists have looked at plant sterols for their benefits in preventing heart disease. There is accumulating evidence that consumption of plant sterols, such as SIT, can lower plasma cholesterol by interfering with cholesterol absorption from the gut. Accordingly, food companies have started adding different plant sterols to foods, such as margarines and salad dressings, to provide this health benefit. Advertisements encourage consumers to eat three servings per day of these fortified foods to lower cholesterol by 10-15%.

A recent study from Penn State University (*American Journal of Clinical Nutrition*, December 1999) showed that diets that included 2-3 servings daily of peanuts or peanut butter, rich in monounsaturated fats (MUFA) also lowered cholesterol by 11-14%. The peanut diets were shown to reduce the risk of cardiovascular disease by 21% compared to the average American diet, whereas a low-fat diet reduced the risk by only 12%. In addition to a significant amount of phytosterols and heart healthy monounsaturated fat, peanuts and peanut butter also contain vitamin E, folate, potassium, magnesium, zinc, and fiber all of which are thought to benefit health.

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 [www.peanut-institute.org](http://www.peanut-institute.org)

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